```
CLEAR STORAGE 1     ,008015,019026,030,034041,045,053,0570571026                                    1
CLEAR STORAGE 2     L068112,102106,113/101099/I99,027A070028)027B0010270B0261,001/001113I0          2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039             ,0010011040          3
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 SEQ PG LIN  LABEL  OP    OPERANDS                                              SFX CT  LOCN  INSTRUCTION TYPE  CARD

 101  1 01   000    JOB   1401 AUTOCODER-PASS 1-GENERATE SYSTEM TAPE-VERSION 3
 102  1 02          CTL   630 1
 103  1 03   SYSTP  EQU   %U1                                                      %U1
 104  1 04   CARD   EQU   0                                                       0000
 105  1 05   PRINT  EQU   200                                                     0200
 106  1 06          ORG   87                                                          0087
 107  1 07   XR1    DCW   000                                                   3  0089                      4
 108  1 08          DC    00                                                    2  0091                      4
 109  1 09   XR2    DCW   000                                                   3  0094                      4
 110  1 10          DC    00                                                    2  0096                      4
 111  1 11   XR3    DCW   000                                                   3  0099                      4
 112  1 12          DC    000000                                                6  0105                      4
 113  1 13   ZONE   DCW   2SKB                                                  4  0109                      4
 114  1 14   ABIT   EQU   ZONE-2                                                  0107
 115  1 15   NOBIT  EQU   ZONE-3                                                  0106
 116  1 16   XXXX   EQU   0                                                       0000
 117  1 17   *
 118  1 18   * START OF MAIN LINE
 119  1 19   *
 120  1 20          ORG   333                                                         0333
 121  1 21   START  RWD   SYSTP                                                 5  0333  U %U1 R              5
 122  1 22          CC    1                                                     2  0338  F 1                  5
 123  1 23          MCW   @GENERATING 1401 AUTOCODER SYSTEM@,PRINT&32           7  0340  M |83 232            5
 124  1 24          W                                                           1  0347  2                    5
 125  1 25          CC    1                                                     2  0348  F 1                  5
 126  1 26          CS    PRINT&132                                             4  0350  / 332                5
 127  1 27          CS                                                          1  0354  /                    5
 128  1 28          MCW   CARD&75,SEQNO#4                                      7  0355  M 075 |87            6
 129  1 29   *
 130  1 30   * START OF NEXT BLOCK
 131  1 31   *
 132  1 32   NXTBK  R                                                           1  0362  1                    6
 133  1 33          C     CARD&12,@CONTROL@                                     7  0363  C 012 |94            6
 134  1 34          BU    MACRO                                                 5  0370  B 792 /              6
 135  1 35          BWZ   CKSEQ,CARD&80,2                                       8  0375  V 726 080 2          6
 136  1 36          BCE   EOJOB,CARD&78,9                                      8  0383  B 877 078 9          6
 137  1 37          SW    CARD&21                                               4  0391  , 021                7
 138  1 38          ZA    CARD&25,HOLD5#5                                       7  0395  ? 025 |99            7
 139  1 39          CW    CARD&21                                               4  0402  ) 021                7
 140  1 40   *
 141  1 41   * FLOAT ADDRESS TO FIVE CHARACTERS
 142  1 42   *
 143  1 43   FLOAT  BCE   *&5,HOLD5,&                                           8  0406  B 418 |99 &          7
 144  1 44          B     COMP1                                                 4  0414  B 429                7
 145  1 45          ZA    HOLD5-1,HOLD5                                         7  0418  ? |98 |99            7
 146  1 46          B     FLOAT                                                 4  0425  B 406                7
 147  1 47   *
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
148  1 48   * TEST ADDRESS AGAINST HOME ADDRESS
149  1 49   * TO DEVELOP INDEX VALUE
150  1 50   *
151  1 51   COMP1  MZ    NOBIT,HOLD5                                7  0429  Y 106 |99           8
152  1 52          S     XR1&2                                      4  0436  S 091               8
153  1 53          C     HOLD5,@01500@                              7  0440  C |99 /04           8
154  1 54          BE    DOCOR                                      5  0447  B 538 S             8
155  1 55          BH    SUB1                                       5  0452  B 527 U             8
156  1 56          S     @01500@,HOLD5                              7  0457  S /09 |99           8
157  1 57          MCW   @16000@,WORK5#5                           7  0464  M /14 /19           9
158  1 58   SUB2   S     HOLD5,WORK5                                7  0471  S |99 /19           9
159  1 59   *
160  1 60   * CONVERT INDEX VALUE TO 3 DIGIT MACHINE ADDRESS
161  1 61   *
162  1 62   CNVRT  BAV   *&1                                        5  0478  B 483 Z             9
163  1 63          A     @96@,WORK5-3                               7  0483  A /21 /16           9
164  1 64          BAV   CNVRT&5                                    5  0490  B 483 Z             9
165  1 65          MZ    WORK5-4,WORK5                              7  0495  Y /15 /19           9
166  1 66          MN    WORK5-3,*&4                                7  0502  D /16 512          10
167  1 67          MZ    ZONE,WORK5-2                               7  0509  Y 109 /17          10
168  1 68          MCW   WORK5,XR1                                 7  0516  M /19 089          10
169  1 69          B     DOCOR                                      4  0523  B 538              10
170  1 70   SUB1   MCW   @01500@,WORK5                             7  0527  M /26 /19          10
171  1 71          B     SUB2                                       4  0534  B 471              10
172  1 72   *
173  1 73   * READ CONDENSED CARDS
174  1 74   *
175  1 75   DOCOR  R                                                1  0538  1                  10
176  1 76          MCW   @045@,XR3                                  7  0539  M /29 099          11
177  1 77          MCW   @042@,XR2                                  7  0546  M /32 094          11
178  1 78          BWZ   CKSEQ,CARD&80,2                            8  0553  V 726 080 2        11
179  1 79          BCE   WTAP1,CARD&68,B                            8  0561  B 675 068 B        11
180  1 80          BCE   SETWM,CARD&40,N                            8  0569  B 596 040 N        11
181  1 81          C     CARD&46,@001@                              7  0577  C 046 /35          12
182  1 82          BE    SETWM                                      5  0584  B 596 S            12
183  1 83          MZ    ABIT,CARD&45                               7  0589  Y 107 045          12
184  1 84   *
185  1 85   * SET RETURN ADDRESS
186  1 86   *
187  1 87   SETWM  MCW   &DOCOR,CARD&71                            7  0596  M /38 071          12
188  1 88          MCW   @B@                                        4  0603  M /39              12
189  1 89   *
190  1 90   * INDEX WORD MARK ADDRESSES
191  1 91   *
192  1 92   COMP2  C     XR2,@063@                                  7  0607  C 094 /42          12
193  1 93          BE    CARD&40                                    5  0614  B 040 S            13
194  1 94          A     &7,XR3                                     7  0619  A /43 099          13
195  1 95          A     &7,XR2                                     7  0626  A /43 094          13
196  1 96          C     CARD&1&X2,@040@                            7  0633  C 0!1 /46          13
197  1 97          BE    *&8                                        5  0640  B 652 S            13
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SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
198   1 98          MZ    ABIT,CARD&X2                             7  0645  Y 107 0!0           13
199   1 99          C     CARD&1&X3,@040@                          7  0652  C 0?1 /46           14
200   2 00          BE    COMP2                                    5  0659  B 607 S             14
201   2 01          MZ    ABIT,CARD&X3                             7  0664  Y 107 0?0           14
202   2 02          B     COMP2                                    4  0671  B 607               14
203   2 03    *
204   2 04    * WRITE CORE ON TAPE
205   2 05    *
206   2 06    WTAP1 LCA   @}@,3998                                 7  0675  L /47 I98           14
207   2 07          WTW   SYSTP,1500                               8  0682  L %U1 V00 W         14
208   2 08          BER   WTERR                                    5  0690  B 973 L             15
209   2 09    *
210   2 10    * CLEAR INPUT AREA
211   2 11    *
212   2 12          MCW   @I99@,CLEAR&3                            7  0695  M /50 705           15
213   2 13    CLEAR CS    XXXX                                     4  0702  / 000               15
214   2 14          SBR   CLEAR&3                                  4  0706  H 705               15
215   2 15          C     CLEAR&3,@U99@                            7  0710  C 705 /53           15
216   2 16          BU    CLEAR                                    5  0717  B 702 /             15
217   2 17          B     NXTBK                                    4  0722  B 362               15
218   2 18    *
219   2 19    * CHECK CARD SEQUENCE
220   2 20    *
221   2 21    CKSEQ SBR   SEQXT&3                                  4  0726  H 759               16
222   2 22          A     &1,SEQNO                                 7  0730  A /54 |87           16
223   2 23          C     CARD&75,SEQNO                            7  0737  C 075 |87           16
224   2 24          MCW   CARD&75,SEQNO                            7  0744  M 075 |87           16
225   2 25          BU    SEQER                                    5  0751  B 760 /             16
226   2 26    SEQXT B     XXXX                                     4  0756  B 000               16
227   2 27    *
228   2 28    * CARD SEQUENCE ERROR
229   2 29    *
230   2 30    SEQER MCW   CARD&80,PRINT&80                         7  0760  M 080 280           17
231   2 31          CHAIN 6                                                          MACRO
232                 MCW                                          1  0767  M           GEN     17
233                 MCW                                          1  0768  M           GEN     17
234                 MCW                                          1  0769  M           GEN     17
235                 MCW                                          1  0770  M           GEN     17
236                 MCW                                          1  0771  M           GEN     17
237                 MCW                                          1  0772  M           GEN     17
238   2 32          MCW   @SEQUENCE ERROR@,PRINT&98                7  0773  M /68 298           18
239   2 33          W                                              1  0780  2                   18
240   2 34          H     0,176                                    7  0781  . 000 176           18
241   2 35          B     DOSEQ                                    4  0788  B 941               18
242   2 36    *
243   2 37    * PROCESS MACRO LIBRARY
244   2 38    *
245   2 39    MACRO NOP   CRDER                                    4  0792  N 917               18
246   2 40          C     CARD&20,@HEADR@                          7  0796  C 020 /73           18
247   2 41          BU    CRDER                                    5  0803  B 917 /             18
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SEQ PG LIN  LABEL  OP    OPERANDS                                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
248  2 42          BWZ   CKSEQ,CARD&80,2                                         8  0808  V 726 080 2          19
249  2 43          MCW   @B@,MACRO                                               7  0816  M /39 792            19
250  2 44          LCA   @}@,CARD&81                                            7  0823  L /47 081            19
251  2 45   *
252  2 46   * WRITE SKELETON INSTRUCTIONS ON TAPE
253  2 47   *
254  2 48   WTAP2  WT    SYSTP,CARD&1                                           8  0830  M %U1 001 W          19
255  2 49          BER   WTERR                                                  5  0838  B 973 L              19
256  2 50          C     CARD&11,@999999@                                       7  0843  C 011 /79            20
257  2 51          BE    WTTM                                                   5  0850  B 868 S              20
258  2 52          R                                                            1  0855  1                    20
259  2 53          BWZ   CKSEQ,CARD&80,2                                        8  0856  V 726 080 2          20
260  2 54          B     WTAP2                                                  4  0864  B 830                20
261  2 55   WTTM   WTM   SYSTP                                                  5  0868  U %U1 M              20
262  2 56          B     NXTBK                                                  4  0873  B 362                20
263  2 57   *
264  2 58   * END OF GENERATION
265  2 59   *
266  2 60   EOJOB  WTM   SYSTP                                                  5  0877  U %U1 M              21
267  2 61          RWD   SYSTP                                                  5  0882  U %U1 R              21
268  2 62          CW    @}@                                                    4  0887  ) /47                21
269  2 63          CS    PRINT&132                                              4  0891  / 332                21
270  2 64          CS                                                           1  0895  /                    21
271  2 65          MCW   @1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1@,246   7  0896  M S25 246            21
272  2 66          W                                                            1  0903  2                    21
273  2 67          CC    1                                                      2  0904  F 1                  22
274  2 68   *
275  2 69   * FINAL HALT
276  2 70   *
277  2 71   HALT   H     0,142                                                  7  0906  . 000 142            22
278  2 72          B     HALT                                                   4  0913  B 906                22
279  2 73   *
280  2 74   * MISSING CONTROL CARD
281  2 75   *
282  2 76   CRDER  CS    PRINT&132                                              4  0917  / 332                22
283  2 77          CS                                                           1  0921  /                    22
284  2 78          MCW   @SYSTEM CONTROL CARD MISSING@,PRINT&27                 7  0922  M S52 227            22
285  2 79          W                                                            1  0929  2                    22
286  2 80   HALT2  H     0,177                                                  7  0930  . 000 177            23
287  2 81          B     HALT2                                                  4  0937  B 930                23
288  2 82   *
289  2 83   * AFTER SEQUENCE ERROR, CHECK BALANCE OF DECK
290  2 84   *
291  2 85   DOSEQ  R                                                            1  0941  1                    23
292  2 86          BWZ   CKSEQ,CARD&80,2                                        8  0942  V 726 080 2          23
293  2 87          BCE   ENDSQ,CARD&78,9                                        8  0950  B 962 078 9          23
294  2 88          B     DOSEQ                                                  4  0958  B 941                23
295  2 89   ENDSQ  H     0,152                                                  7  0962  . 000 152            23
296  2 90          B     ENDSQ                                                  4  0969  B 962                24
297  2 91   *
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

298  2 92   * WRITE REDUNDANCY ROUTINE
299  2 93   *
300  2 94   WTERR  SBR   WTXT&3                                             4  0973  H |36               24
301  2 95          SBR   XR3                                               4  0977  H 099              24
302  2 96          MZ    &9,XR3                                            7  0981  Y S53 099          24
303  2 97          MCW   4000-6&X3,RETRY&7                                 7  0988  M II4 |27          24
304  2 98   BSP    BSP   SYSTP                                             5  0995  U %U1 B            24
305  2 99          SKP   SYSTP                                             5  1000  U %U1 E            24
306  3 00          BCE   SUBCT,WTCT-1,1                                    8  1005  B |37 S54 1        25
307  3 01          A     &1,WTCT#2                                         7  1013  A /54 S55          25
308  3 02   RETRY  WT    SYSTP,XXXX                                        8  1020  M %U1 000 W        25
309  3 03          BER   BSP                                               5  1028  B 995 L            25
310  3 04   WTXT   B     XXXX                                              4  1033  B 000              25
311  3 05   SUBCT  S     WTCT                                              4  1037  S S55              25
312  3 06          H     0,161                                             7  1041  . 000 161          26
313  3 07          B     RETRY                                             4  1048  B |20              26
       123         DCW   @GENERATING 1401 AUTOCODER SYSTEM@                32  1083            LIT   27
       128  SEQNO        #04                                               4  1087            AREA  27
       133               @CONTROL@                                         7  1094            LIT   28
       138  HOLD5        #05                                               5  1099            AREA  28
       153               @01500@                                           5  1104            LIT   28
       156               @01500@                                           5  1109            LIT   28
       157               @16000@                                           5  1114            LIT   28
       157  WORK5        #05                                               5  1119            AREA  28
                         @96@                                              2  1121            LIT   28
       170               @01500@                                           5  1126            LIT   29
                         @045@                                             3  1129            LIT   29
                         @042@                                             3  1132            LIT   29
                         @001@                                             3  1135            LIT   29
       187               &DOCOR                                            3  1138  538       ADCON 29
                         @B@                                               1  1139            LIT   29
                         @063@                                             3  1142            LIT   29
                         &7                                                1  1143            LIT   30
                         @040@                                             3  1146            LIT   30
                         @}@                                               1  1147            LIT   30
                         @I99@                                             3  1150            LIT   30
                         @U99@                                             3  1153            LIT   30
                         &1                                                1  1154            LIT   30
       238               @SEQUENCE ERROR@                                 14  1168            LIT   30
       246               @HEADR@                                           5  1173            LIT   31
       256               @9999999@                                         6  1179            LIT   31
       271               @1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1@  46  1225            LIT   33
       284               @SYSTEM CONTROL CARD MISSING@                    27  1252            LIT   33
                         &9                                                1  1253            LIT   33
       307  WTCT         #02                                               2  1255            AREA  33
314  3 08          EX    START                                                   B 333             34
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

315  3 09          JOB   1401 AUTOCODER-PASS 1 SELECT PROGRAM      -VERSION 3
316  3 10          SFX   B
317  3 11   PASSA  EQU   1650                                              B      1650
318  3 12   DOPSA  EQU   1900                                              B      1900
319  3 13   SYSTP  EQU   %U1                                               B      %U1
320  3 14   *
321  3 15   * BRANCH FROM TAPE LOAD BUTTON
322  3 16   *
323  3 17          ORG   1                                                 B             0001
324  3 18          B     333                                               B   4  0001  B 333              37          ADDR
325  3 19          H     *-3                                               B   4  0005  . 005              37          ADDR
326  3 20   LOADD  DCW   @599@                                             B   3  0011                     37          ADDR
327  3 21          ORG   87                                                B             0087
328  3 22   XR1    DCW   000                                               B   3  0089                     38
329  3 23          DC    00                                                B   2  0091                     38
330  3 24          DCW   000                                               B   3  0094                     38
331  3 25          DC    00                                                B   2  0096                     38
332  3 26          DCW   000                                               B   3  0099                     38
333  3 27          DC    00                                                B   2  0101                     38
334  3 28   *
335  3 29   * BEGIN PROGRAM
336  3 30   *
337  3 31          ORG   333                                               B             0333
338  3 32          BER   HALT1                                             B   5  0333  B 407 L            39
339  3 33          SW    GMRK1                                             B   4  0338  , 835              39
340  3 34   CLEAR  CS    3999                                              B   4  0342  / I99              39
341  3 35          SBR   CLEAR&3                                           B   4  0346  H 345              39
342  3 36          C     CLEAR&3,@U99@                                     B   7  0350  C 345 787          39
343  3 37          BU    CLEAR                                             B   5  0357  B 342 /            39
344  3 38   *
345  3 39   * GET PAST LIBRARY
346  3 40   *
347  3 41   LOOP1  SW    GMRK1                                             B   4  0362  , 835              39
348  3 42          RT    SYSTP,GMRK1-21                                    B   8  0366  M %U1 814 R        40
349  3 43          C     GMRK1-2,@999999    HEADR@                         B   7  0374  C 833 802          40
350  3 44          BU    LOOP1                                             B   5  0381  B 362 /            40
351  3 45          SW    GMRK1                                             B   4  0386  , 835              40
352  3 46          RT    SYSTP,GMRK1-1                                     B   8  0390  M %U1 834 R        40
353  3 47          BEF   TSTSS                                             B   5  0398  B 418 K            40
354  3 48          B     LOOP1                                             B   4  0403  B 362              41
355  3 49   *
356  3 50   * REDUNDANCY ON TAPE LOAD
357  3 51   *
358  3 52   HALT1  H     0,199                                             B   7  0407  . 000 199          41
359  3 53          B     HALT1                                             B   4  0414  B 407              41
360  3 54   TSTSS  BSS   LIBRN,F                                           B   5  0418  B 521 F            41
361  3 55   *
362  3 56   * RETRIEVE PASS 2 FOR ASSEMBLY RUN
363  3 57   *
364  3 58          SW    GMRK1                                             B   4  0423  , 835              41
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
365  3 59          LCA   GMRK1,3998                         B  7  0427  L 835 I98          41
366  3 60          MCW   &PASSA&13,NOIS2&6                  B  7  0434  M 805 658          41
367  3 61   *
368  3 62   * GET PAST LIBRARIAN
369  3 63   *
370  3 64   LOOP2  BCE   LDPSA,BYCT,4                       B  8  0441  B 476 807 4        42
371  3 65          SW    3998                               B  4  0449  , I98              42
372  3 66          RTW   SYSTP,PASSA                        B  8  0453  L %U1 W50 R        42
373  3 67          B     NOISE                              B  4  0461  B 637              42
374  3 68          A     &1,BYCT#1                          B  7  0465  A 806 807          42
375  3 69          B     LOOP2                              B  4  0472  B 441              42
376  3 70   *
377  3 71   * PASS 2 FOUND
378  3 72   *
379  3 73   LDPSA  RTW   SYSTP,PASSA                        B  8  0476  L %U1 W50 R        43
380  3 74          B     NOISE                              B  4  0484  B 637              43
381  3 75          BER   RDERR                              B  5  0488  B 676 L           43
382  3 76          CW    GMRK1                              B  4  0493  ) 835              43
383  3 77   CLR    CS    PASSA-1                            B  4  0497  / W49              43
384  3 78          SBR   CLR&3                              B  4  0501  H 500              43
385  3 79          C     CLR&3,LOADD                        B  7  0505  C 500 011          43
386  3 80          BU    CLR                                B  5  0512  B 497 /           44
387  3 81          B     DOPSA                              B  4  0517  B Z00              44
388  3 82   *
389  3 83   * LIBRARY RUN
390  3 84   *
391  3 85   LIBRN  MCW   @!13@,NOIS2&6                      B  7  0521  M 810 658          44
392  3 86          CW    GMRK1                              B  4  0528  ) 835              44
393  3 87          BSS   OUTPT,B                            B  5  0532  B 558 B           44
394  3 88   *
395  3 89   * RETRIEVE UPDATE PROGRAM
396  3 90   *
397  3 91          RTW   SYSTP,2000                         B  8  0537  L %U1 !00 R        44
398  3 92          B     NOISE                              B  4  0545  B 637              44
399  3 93          BER   RDERR                              B  5  0549  B 676 L           45
400  3 94          B     2000                               B  4  0554  B !00             45
401  3 95   *
402  3 96   * RETRIEVE OUTPUT PROGRAM
403  3 97   *
404  3 98   OUTPT  RTW   SYSTP,2000                         B  8  0558  L %U1 !00 R        45
405  3 99          B     NOISE                              B  4  0566  B 637              45
406  4 00          SW    GMRK1                              B  4  0570  , 835              45
407  4 01          LCA   GMRK1,3998                         B  7  0574  L 835 I98          45
408  4 02          RTW   SYSTP,2000                         B  8  0581  L %U1 !00 R        46
409  4 03          B     NOISE                              B  4  0589  B 637              46
410  4 04          RTW   SYSTP,2000                         B  8  0593  L %U1 !00 R        46
411  4 05          B     NOISE                              B  4  0601  B 637              46
412  4 06          SW    3998                               B  4  0605  , I98              46
413  4 07          RTW   SYSTP,2000                         B  8  0609  L %U1 !00 R        46
414  4 08          B     NOISE                              B  4  0617  B 637              47
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
415  4 09          BER   RDERR                             B   5  0621  B 676 L           47
416  4 10          CW    GMRK1,3998                        B   7  0626  ) 835 I98         47
417  4 11          B     2000                              B   4  0633  B !00            47
418  4 12  *
419  4 13  * TEST FOR NOISE RECORDS
420  4 14  *
421  4 15  NOISE  SBR   NOSXT&3                           B   4  0637  H 675            47
422  4 16          SBR   XR1                               B   4  0641  H 089            47
423  4 17          MZ    &9,XR1                            B   7  0645  Y 811 089        47
424  4 18  NOIS2  BCE   4000-12&X1,0,}                     B   8  0652  B IY8 000 }      48
425  4 19          CHAIN 12                                                MACRO
426                BCE                                     B   1  0660  B       GEN     48
427                BCE                                     B   1  0661  B       GEN     48
428                BCE                                     B   1  0662  B       GEN     48
429                BCE                                     B   1  0663  B       GEN     48
430                BCE                                     B   1  0664  B       GEN     48
431                BCE                                     B   1  0665  B       GEN     48
432                BCE                                     B   1  0666  B       GEN     49
433                BCE                                     B   1  0667  B       GEN     49
434                BCE                                     B   1  0668  B       GEN     49
435                BCE                                     B   1  0669  B       GEN     49
436                BCE                                     B   1  0670  B       GEN     49
437                BCE                                     B   1  0671  B       GEN     49
438  4 20  NOSXT  B     0                                 B   4  0672  B 000            49
439  4 21  *
440  4 22  * READ REDUNDANCY ROUTINE
441  4 23  *
442  4 24  RDERR  SBR   XR1                               B   4  0676  H 089            50
443  4 25          SBR   RDXT&3                            B   4  0680  H 726            50
444  4 26          MZ    &9,XR1                            B   7  0684  Y 811 089        50
445  4 27          MCW   4000-10&X1,RDTRY&7                B   7  0691  M IZ0 717        50
446  4 28  BSP     BSP   SYSTP                             B   5  0698  U %U1 B          50
447  4 29          MCW   &9,RDCT#1                         B   7  0703  M 811 812        50
448  4 30  RDTRY  RTW   SYSTP,0                           B   8  0710  L %U1 000 R      51
449  4 31          BER   *&5                               B   5  0718  B 727 L          51
450  4 32  RDXT   B     0                                 B   4  0723  B 000            51
451  4 33          BSP   SYSTP                             B   5  0727  U %U1 B          51
452  4 34          S     &1,RDCT                           B   7  0732  S 806 812        51
453  4 35          BWZ   RDTRY,RDCT,B                     B   8  0739  V 710 812 B      51
454  4 36          H     0,191                             B   7  0747  . 000 191        52
455  4 37          MCW   RDTRY&7,*&8                       B   7  0754  M 717 768        52
456  4 38          RTW   SYSTP,0                           B   8  0761  L %U1 000 R      52
457  4 39          BSS   BSP,E                             B   5  0769  B 698 E          52
458  4 40          H     0,111                             B   7  0774  . 000 111        52
459  4 41          B     RDXT                              B   4  0781  B 723            52
460  4 42          LTORG *                                 B              0785
                   DCW   @U99@                             B   3  0787          LIT     53
       349               @999999    HEADR@                B  15  0802          LIT     53
       366               &PASSA&13                         B   3  0805  W63     ADCON   53
                         &1                                B   1  0806          LIT     53
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		374	BYCT		#01	B	1	0807		AREA	53
					@!13@	B	3	0810		LIT	53
					&9	B	1	0811		LIT	53
		447	RDCT		#01	B	1	0812		AREA	54
461	4	43		DCW	#22	B	22	0834			54
462	4	44	GMRK1	DCW	@}@	B	1	0835			54
463	4	45		EX	0	B			B 000		55

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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
464  4 46          JOB   1401 AUTOCODER-PASS 1 RETRIEVE UPDATE -VERSION 3
465  4 47          SFX   R
466  4 48  SYSTP   EQU   %U1                                      R       %U1
467  4 49  LTAPSW  EQU   2725                                     R       2725
468  4 50          ORG   2000                                     R              2000
469  4 51          BSS   LIST,G                                   R   5   2000  B J26 G             58
470  4 52          CW    ENDRT                                    R   4   2005  ) K12               58
471  4 53  START   RTW   SYSTP,1                                  R   8   2009  L %U1 001 R         58
472  4 54          BCE   START,013,}                              R   8   2017  B !09 013 }         58
473  4 55          CHAIN 12                                                                 MACRO
474                BCE                                            R   1   2025  B           GEN    58
475                BCE                                            R   1   2026  B           GEN    58
476                BCE                                            R   1   2027  B           GEN    58
477                BCE                                            R   1   2028  B           GEN    59
478                BCE                                            R   1   2029  B           GEN    59
479                BCE                                            R   1   2030  B           GEN    59
480                BCE                                            R   1   2031  B           GEN    59
481                BCE                                            R   1   2032  B           GEN    59
482                BCE                                            R   1   2033  B           GEN    59
483                BCE                                            R   1   2034  B           GEN    59
484                BCE                                            R   1   2035  B           GEN    60
485                BCE                                            R   1   2036  B           GEN    60
486  4 56          BER   RDERR                                    R   5   2037  B !46 L             60
487  4 57          B     333                                      R   4   2042  B 333               60
488  4 58  RDERR   BSP   SYSTP                                    R   5   2046  U %U1 B             60
489  4 59          MCW   &9,RDCT#1                                R   7   2051  M K06 K07           60
490  4 60  RDTRY   RTW   SYSTP,1                                  R   8   2058  L %U1 001 R         60
491  4 61          BER   *&5                                      R   5   2066  B !75 L             61
492  4 62          B     333                                      R   4   2071  B 333               61
493  4 63          BSP   SYSTP                                    R   5   2075  U %U1 B             61
494  4 64          S     &1,RDCT                                  R   7   2080  S K08 K07           61
495  4 65          BWZ   RDTRY,RDCT,B                            R   8   2087  V !58 K07 B         61
496  4 66          H     0,191                                    R   7   2095  . 000 191           61
497  4 67  AGAIN   RTW   SYSTP,1                                  R   8   2102  L %U1 001 R         62
498  4 68          BSS   RDERR,E                                  R   5   2110  B !46 E             62
499  4 69          H     0,111                                    R   7   2115  . 000 111           62
500  4 70          B     333                                      R   4   2122  B 333               62
501  4 71  LIST    SW    ENDRT                                    R   4   2126  , K12               62
502  4 72          LCA   ENDRT,1998                               R   7   2130  L K12 Z98           62
503  4 73          RTW   SYSTP,333                                R   8   2137  L %U1 333 R         63
504  4 74          BEF   GET                                      R   5   2145  B J54 K             63
505  4 75          B     LIST                                     R   4   2150  B J26               63
506  4 76  GET     BSP   SYSTP                                    R   5   2154  U %U1 B             63
507  4 77          BSP   SYSTP                                    R   5   2159  U %U1 B             63
508  4 78          CW    ENDRT,1998                               R   7   2164  ) K12 Z98           63
509  4 79          SW    LTAPSW                                   R   4   2171  , P25               63
510  4 80          MCW   @333@,RDTRY&6                           R   7   2175  M K11 !64           64
511  4 81          MCW   @333@,AGAIN&6                           R   7   2182  M K11 J08           64
512  4 82          RTW   SYSTP,333                                R   8   2189  L %U1 333 R         64
513  4 83          BER   RDERR                                    R   5   2197  B !46 L             64
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
514  4 84           B     333                                        R  4  2202  B 333              64
515  4 85           LTORG *                                          R        2206
                    DCW   &9                                         R  1  2206            LIT     64
       489  RDCT          #01                                       R  1  2207            AREA    64
                          &1                                        R  1  2208            LIT     65
                          @333@                                     R  3  2211            LIT     65
516  4 86   ENDRT  DCW   @}@                                        R  1  2212                    65
517  4 87           EX    0                                          R        B 000               66
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
518  4 88           JOB   1401 AUTOCODER-PASS 1 COPY SYSTEM TAPE  -VERSION 3
519  4 89           SFX   U
520  4 90           ORG   87                                                U          0087
521  4 91   XR1     DCW   000                                               U   3  0089                    69
522  4 92           DC    00                                                U   2  0091                    69
523  4 93   XR2     DCW   000                                               U   3  0094                    69
524  4 94           DC    00                                                U   2  0096                    69
525  4 95   XR3     DCW   000                                               U   3  0099                    69
526  4 96           DC    00                                                U   2  0101                    69
527  4 97   SYSTP   EQU   %U1                                               U      %U1
528  4 98   OUTAP   EQU   %U6                                               U      %U6
529  4 99   INPUT   EQU   1500                                              U      1500
530  5 00   *
531  5 01   * BEGIN PROGRAM
532  5 02   *
533  5 03           ORG   333                                               U          0333
534  5 04           SW    ENDUP                                             U   4  0333  , /39              70
535  5 05           RWD   SYSTP                                             U   5  0337  U %U1 R            70
536  5 06           RWD   OUTAP                                             U   5  0342  U %U6 R            70
537  5 07           CC    1                                                 U   2  0347  F 1                70
538  5 08           CS    332                                               U   4  0349  / 332              70
539  5 09           CS                                                      U   1  0353  /                  70
540  5 10           B     CLEAR                                             U   4  0354  B |21              70
541  5 11           BSS   COPY,C                                           U   5  0358  B 525 C            71
542  5 12   *
543  5 13   * RETRIEVE UPDATE PROGRAM
544  5 14   *
545  5 15           RTW   SYSTP,INPUT                                       U   8  0363  L %U1 V00 R         71
546  5 16           SBR   XR1                                               U   4  0371  H 089             71
547  5 17           MN    0&X1                                              U   4  0375  D 0|0             71
548  5 18           SW                                                      U   1  0379  ,                  71
549  5 19           DCW   @N0000@                                          U   5  0384                     71
550  5 20           B     NOISE                                             U   4  0385  B 759             71
551  5 21           BER   RDERR                                             U   5  0389  B 798 L           72
552  5 22           WTW   OUTAP,INPUT                                       U   8  0394  L %U6 V00 W         72
553  5 23           BER   WTERR                                             U   5  0402  B 928 L           72
554  5 24           B     CLEAR                                             U   4  0407  B |21              72
555  5 25   BYPSS   RTW   SYSTP,INPUT                                       U   8  0411  L %U1 V00 R         72
556  5 26           C     INPUT&19,@999999    HEADR@                        U   7  0419  C V19 |70           72
557  5 27           BU    BYPSS                                             U   5  0426  B 411 /           73
558  5 28           RTW   SYSTP,INPUT                                       U   8  0431  L %U1 V00 R         73
559  5 29           BEF   GETUP                                             U   5  0439  B 448 K           73
560  5 30           B     BYPSS                                             U   4  0444  B 411             73
561  5 31   GETUP   BCE   LDUPD,BYCT,3                                      U   8  0448  B 498 |72 3         73
562  5 32           RTW   SYSTP,INPUT                                       U   8  0456  L %U1 V00 R         73
563  5 33           DCW   @N00000000000000@                                U  14  0477                     74
564  5 34           B     NOISE                                             U   4  0478  B 759             74
565  5 35           BER   RDERR                                             U   5  0482  B 798 L           74
566  5 36           A     &1,BYCT#1                                         U   7  0487  A |71 |72          74
567  5 37           B     GETUP                                             U   4  0494  B 448             74
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
568  5 38   LDUPD  CS    199                                U  4  0498  / 199              74
569  5 39          CS    80                                 U  4  0502  / 080              75
570  5 40          SW    6,16                               U  7  0506  , 006 016          75
571  5 41          SW    21                                 U  4  0513  , 021              75
572  5 42          B     HEAD                               U  4  0517  B N32              75
573  5 43          B     BEGIN                              U  4  0521  B V00              75
574  5 44   *
575  5 45   * COPY SYSTEM
576  5 46   *
577  5 47   COPY   RTW   SYSTP,INPUT                        U  8  0525  L %U1 V00 R        75
578  5 48          SBR   XR1                                U  4  0533  H 089              75
579  5 49          MN    0&X1                               U  4  0537  D 0|0              76
580  5 50          SW                                       U  1  0541  ,                  76
581  5 51          BEF   EOF                                U  5  0542  B 601 K           76
582  5 52          B     NOISE                              U  4  0547  B 759              76
583  5 53          BER   RDERR                              U  5  0551  B 798 L           76
584  5 54   *
585  5 55   * TEST END OF LIBRARY
586  5 56   *
587  5 57   SWICH  NOP   WTAP1                              U  4  0556  N 580              76
588  5 58          SW    LIBSW                              U  4  0560  , |79              76
589  5 59          C     INPUT&10,@999999@                  U  7  0564  C V10 |78          77
590  5 60          BU    WTAP1                              U  5  0571  B 580 /            77
591  5 61          CW    LIBSW#1                            U  4  0576  ) |79              77
592  5 62   *
593  5 63   * WRITE TAPE
594  5 64   *
595  5 65   WTAP1  WTW   OUTAP,INPUT                        U  8  0580  L %U6 V00 W        77
596  5 66          BER   WTERR                              U  5  0588  B 928 L           77
597  5 67   *
598  5 68   * DO NEXT BLOCK
599  5 69   *
600  5 70   REOUT  B     CLEAR                              U  4  0593  B |21              77
601  5 71          B     COPY                               U  4  0597  B 525              77
602  5 72   *
603  5 73   * END OF FILE
604  5 74   *
605  5 75   EOF    WTM   OUTAP                              U  5  0601  U %U6 M           78
606  5 76          BW    ISMOR,EOFSW#1                      U  8  0606  V 727 |80 1        78
607  5 77          B     CLEAR                              U  4  0614  B |21              78
608  5 78          LCA   ENDUP,3998                         U  7  0618  L /39 I98          78
609  5 79          BW    ERASE,UPDSW                        U  8  0625  V 637 /26 1        78
610  5 80          B     HALT1                              U  4  0633  B 669              78
611  5 81   *
612  5 82   * ERASE TAPE
613  5 83   *
614  5 84   ERASE  SKP   OUTAP                              U  5  0637  U %U6 E           79
615  5 85          WT    OUTAP,INPUT                        U  8  0642  M %U6 V00 W       79
616  5 86          BCE   HALT1,SKPCT-1,2                    U  8  0650  B 669 |81 2       79
617  5 87          A     &1,SKPCT#2                         U  7  0658  A |71 |82          79
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
618  5 88          B     ERASE                                              U  4  0665  B 637               79
619  5 89    *
620  5 90    * END OF COPY RUN
621  5 91    *
622  5 92    HALT1 MCW   @1401 AUTOCODER SYSTEM COPIED ON TAPE UNIT 6@,243  U  7  0669  M /25 243           79
623  5 93          W                                                        U  1  0676  2                   80
624  5 94          CC    1                                                  U  2  0677  F 1                 80
625  5 95          BW    CPYND,UPDSW#1                                      U  8  0679  V 692 /26 1         80
626  5 96          RWD   OUTAP                                              U  5  0687  U %U6 R             80
627  5 97    CPYND RWD   SYSTP                                              U  5  0692  U %U1 R             80
628  5 98          H     0,122                                              U  7  0697  . 000 122           80
629  5 99          B     CLEAR                                              U  4  0704  B |21               80
630  6 00          S     SKPCT                                              U  4  0708  S |82               81
631  6 01          MCW   @N@,SWICH                                         U  7  0712  M /27 556           81
632  6 02          SW    EOFSW                                              U  4  0719  , |80               81
633  6 03          B     COPY                                               U  4  0723  B 525               81
634  6 04    *
635  6 05    * SET UP COPY OF REST OF SYSTEM
636  6 06    *
637  6 07    ISMOR BW    BDEOF,LIBSW                                        U  8  0727  V 750 |79 1         81
638  6 08          CW    EOFSW                                              U  4  0735  ) |80               81
639  6 09          MCW   @B@,SWICH                                          U  7  0739  M /28 556           81
640  6 10          B     REOUT                                              U  4  0746  B 593               82
641  6 11    *
642  6 12    * FALSE END OF FILE
643  6 13    *
644  6 14    BDEOF BSP   OUTAP                                              U  5  0750  U %U6 B             82
645  6 15          B     REOUT                                              U  4  0755  B 593               82
646  6 16    *
647  6 17    * TEST FOR NOISE RECORDS
648  6 18    *
649  6 19    NOISE SBR   NOSXT&3                                            U  4  0759  H 797               82
650  6 20          SBR   XR2                                                U  4  0763  H 094               82
651  6 21          MZ    &9,XR2                                             U  7  0767  Y /29 094           82
652  6 22    NOIS2 BCE   4000-26&X2,INPUT&13,}                              U  8  0774  B IP4 V13 }         82
653  6 23          CHAIN 12                                                                    MACRO
654                BCE                                                    U  1  0782  B           GEN     83
655                BCE                                                    U  1  0783  B           GEN     83
656                BCE                                                    U  1  0784  B           GEN     83
657                BCE                                                    U  1  0785  B           GEN     83
658                BCE                                                    U  1  0786  B           GEN     83
659                BCE                                                    U  1  0787  B           GEN     83
660                BCE                                                    U  1  0788  B           GEN     83
661                BCE                                                    U  1  0789  B           GEN     84
662                BCE                                                    U  1  0790  B           GEN     84
663                BCE                                                    U  1  0791  B           GEN     84
664                BCE                                                    U  1  0792  B           GEN     84
665                BCE                                                    U  1  0793  B           GEN     84
666  6 24    NOSXT B     0                                                  U  4  0794  B 000               84
667  6 25    *
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
668  6 26   * READ REDUNDANCY ROUTINE
669  6 27   *
670  6 28   RDERR  SBR   RDXT&3                            U   4  0798  H 855              84
671  6 29          SBR   XR3                               U   4  0802  H 099              85
672  6 30          MZ    &9,XR3                            U   7  0806  Y /29 099          85
673  6 31          MCW   4000-24&X3,RDTRY&7                U   7  0813  M IG6 846          85
674  6 32          MN    RDTRY&3,BSP1&3                    U   7  0820  D 842 830          85
675  6 33   BSP1   BSP   SYSTP                             U   5  0827  U %U1 B            85
676  6 34          MCW   &9,RDCT#1                         U   7  0832  M /29 /30          85
677  6 35   RDTRY  RT    SYSTP,0                           U   8  0839  M %U1 000 R        86
678  6 36          BER   *&5                               U   5  0847  B 856 L            86
679  6 37   RDXT   B     0                                 U   4  0852  B 000              86
680  6 38          MN    RDTRY&3,BSP2&3                    U   7  0856  D 842 866          86
681  6 39   BSP2   BSP   SYSTP                             U   5  0863  U %U1 B            86
682  6 40          S     &1,RDCT                           U   7  0868  S |71 /30          86
683  6 41          BWZ   RDTRY,RDCT,B                      U   8  0875  V 839 /30 B        87
684  6 42          MN    RDTRY&3,*&7                       U   7  0883  D 842 896          87
685  6 43          H     0,190                             U   7  0890  . 000 190          87
686  6 44          MCW   RDTRY&7,*&8                       U   7  0897  M 846 911          87
687  6 45          RT    SYSTP,0                           U   8  0904  M %U1 000 R        87
688  6 46          BSS   BSP1,E                           U   5  0912  B 827 E            88
689  6 47          H     0,111                             U   7  0917  . 000 111          88
690  6 48          B     RDXT                              U   4  0924  B 852              88
691  6 49   *
692  6 50   * WRITE REDUNDANCY ROUTINE
693  6 51   *
694  6 52   WTERR  SBR   WTXT&3                            U   4  0928  H 998              88
695  6 53          SBR   XR3                               U   4  0932  H 099              88
696  6 54          MZ    &9,XR3                            U   7  0936  Y /29 099          88
697  6 55          MCW   4000-6&X3,WTTRY&7                 U   7  0943  M II4 989          88
698  6 56          MN    WTTRY&3,BSP3&3                    U   7  0950  D 985 960          89
699  6 57   BSP3   BSP   OUTAP                            U   5  0957  U %U6 B            89
700  6 58          SKP   SYSTP                             U   5  0962  U %U1 E            89
701  6 59          BCE   SUBCT,WTCT-1,1                    U   8  0967  B 999 /31 1        89
702  6 60          A     &1,WTCT#2                         U   7  0975  A |71 /32          89
703  6 61   WTTRY  WT    OUTAP,0                           U   8  0982  M %U6 000 W        90
704  6 62          BER   BSP3                              U   5  0990  B 957 L            90
705  6 63   WTXT   B     0                                 U   4  0995  B 000              90
706  6 64   SUBCT  S     WTCT                              U   4  0999  S /32              90
707  6 65          MN    WTTRY&3,*&7                       U   7  1003  D 985 |16          90
708  6 66          H     0,160                             U   7  1010  . 000 160          90
709  6 67          B     WTTRY                             U   4  1017  B 982              90
710  6 68   *
711  6 69   * CLEAR OUTPUT AREA
712  6 70   *
713  6 71   CLEAR  SBR   CLRXT&3                           U   4  1021  H |55              91
714  6 72          MCW   @I99@,CLR&3                       U   7  1025  M /35 |35          91
715  6 73   CLR    CS    3999                              U   4  1032  / I99              91
716  6 74          SBR   CLR&3                             U   4  1036  H |35              91
717  6 75          C     CLR&3,&INPUT-1                    U   7  1040  C |35 /38          91
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
718	6	76		BU	CLR	U	5	1047	B |32 /		91
719	6	77	CLRXT	B	0	U	4	1052	B 000		91
720	6	78		LTORG	*	U			1056		
		556		DCW	@999999 HEADR@	U	15	1070		LIT	92
					&1	U	1	1071		LIT	92
		566	BYCT		#01	U	1	1072		AREA	92
		589			@999999@	U	6	1078		LIT	92
		591	LIBSW		#01	U	1	1079		AREA	92
		606	EOFSW		#01	U	1	1080		AREA	92
		617	SKPCT		#02	U	2	1082		AREA	92
		622			@1401 AUTOCODER SYSTEM COPIED ON TAPE UNIT 6@	U	43	1125		LIT	94
		625	UPDSW		#01	U	1	1126		AREA	94
					@N@	U	1	1127		LIT	94
					@B@	U	1	1128		LIT	94
					&9	U	1	1129		LIT	94
		676	RDCT		#01	U	1	1130		AREA	95
		702	WTCT		#02	U	2	1132		AREA	95
					@I99@	U	3	1135		LIT	95
		717			&INPUT-1	U	3	1138	U99	ADCON	95
721	6	79	ENDUP	DCW	@}@	U	1	1139			95
722	6	80		EX	0	U			B 000		96

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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
723  6 81          JOB   1401 AUTOCODER-PASS 1 UPDATE LIBRARY -VERSION 3
724  6 82   IMAGE  EQU   101                                          U      0101
725  6 83   *
726  6 84   * BEGIN UPDATE
727  6 85   *
728  6 86          ORG   INPUT                                        U           1500
729  6 87   BEGIN  RWD   SYSTP                                       U   5  1500  U %U1 R             99
730  6 88          CW    HEDSW,ENDSW                                 U   7  1505  ) ?91 ?98           99
731  6 89          MCW   &IMAGE&13,NOIS2&6                          U   7  1512  M ?30 780           99
732  6 90          LCA   ENDUP,IMAGE&80                             U   7  1519  L /39 181           99
733  6 91          RT    SYSTP,IMAGE                                 U   8  1526  M %U1 101 R        99
734  6 92          DCW   @N00000000000000@                         U  14  1547                     100
735  6 93          B     NOISE                                       U   4  1548  B 759             100
736  6 94          CS    IMAGE&79                                    U   4  1552  / 180             100
737  6 95          B     RDTP                                        U   4  1556  B M17             100
738  6 96   REBEG  B     READ                                        U   4  1560  B L24             100
739  6 97          BW    SERCH,INSW                                  U   8  1564  V V84 ?73 1        100
740  6 98          BW    SERCH,DELSW                                 U   8  1572  V V84 ?79 1        101
741  6 99          B     REBEG                                       U   4  1580  B V60             101
742  7 00   *
743  7 01   * SEARCH FOR CORRECT SUBROUTINE
744  7 02   *
745  7 03   SERCH  B     DOCTL                                       U   4  1584  B N94             101
746  7 04          C     11,@999999@                                 U   7  1588  C 011 ?36          101
747  7 05          BE    CLNUP                                       U   5  1595  B K40 S           101
748  7 06          C     8,NAME#3                                    U   7  1600  C 008 ?39          101
749  7 07          BE    FOUND                                       U   5  1607  B X30 S           102
750  7 08          BH    QUIT                                        U   5  1612  B P75 U           102
751  7 09          MCW   8,NAME                                     U   7  1617  M 008 ?39          102
752  7 10          S     SEQNO                                       U   4  1624  S A67             102
753  7 11   LOOP1  BW    HEADR,HEDSW                                 U   8  1628  V W56 ?91 1        102
754  7 12          B     RDTP                                        U   4  1636  B M17             102
755  7 13          BW    HEADR,HEDSW                                 U   8  1640  V W56 ?91 1        103
756  7 14   MORE   B     WTAP2                                       U   4  1648  B M95             103
757  7 15          B     LOOP1                                       U   4  1652  B W28             103
758  7 16   *
759  7 17   * HEADER LOCATED ON TAPE
760  7 18   *
761  7 19   HEADR  BW    PAST,ENDSW                                  U   8  1656  V W89 ?98 1        103
762  7 20          C     IMAGE&7,NAME                                U   7  1664  C 108 ?39          103
763  7 21          BE    FOUND                                       U   5  1671  B X30 S           103
764  7 22          CW    HEDSW                                       U   4  1676  ) ?91             104
765  7 23          BL    PAST                                        U   5  1680  B W89 T           104
766  7 24          B     MORE                                        U   4  1685  B W48             104
767  7 25   *
768  7 26   * SUBROUTINE NOT ON TAPE
769  7 27   *
770  7 28   PAST   BSP   SYSTP                                       U   5  1689  U %U1 B            104
771  7 29          CS    IMAGE&79                                    U   4  1694  / 180             104
772  7 30          CW    HEDSW                                       U   4  1698  ) ?91             104
```

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SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
773   7 31          BW    UNKWN,DELSW                              U   8  1702  V Q01 ?79 1       104
774   7 32          C     22,@  @                                  U   7  1710  C 022 ?41         105
775   7 33          BU    UNKWN                                    U   5  1717  B Q01 /           105
776   7 34   BACK   B     PTCTL                                    U   4  1722  B O37            105
777   7 35          B     INSER                                    U   4  1726  B Y06            105
778   7 36   *
779   7 37   * SUBROUTINE FOUND
780   7 38   *
781   7 39   FOUND  C     22,@  @                                  U   7  1730  C 022 ?41         105
782   7 40          BU    PARTL                                    U   5  1737  B Y46 /           105
783   7 41   *
784   7 42   * DELETE AND/OR INSERT WHOLE SUBROUTINES
785   7 43   *
786   7 44   ALL    MCW   @DELET@,218                              U   7  1742  M ?46 218         105
787   7 45          B     PTCTL                                    U   4  1749  B O37            106
788   7 46          S     SEQNO                                    U   4  1753  S A67            106
789   7 47   LOOP2  B     PRINT                                    U   4  1757  B O72            106
790   7 48          B     RDTP                                     U   4  1761  B M17            106
791   7 49          BW    EXIT,HEDSW                               U   8  1765  V X77 ?91 1       106
792   7 50          B     LOOP2                                    U   4  1773  B X57            106
793   7 51   EXIT   BSP   SYSTP                                    U   5  1777  U %U1 B          106
794   7 52          CS    IMAGE&79                                 U   4  1782  / 180            107
795   7 53          CW    HEDSW                                    U   4  1786  ) ?91            107
796   7 54          BW    REBEG,DELSW                              U   8  1790  V V60 ?79 1       107
797   7 55   *
798   7 56   * INSERTION OF WHOLE SUBROUTINE
799   7 57   *
800   7 58          B     DOCTL                                    U   4  1798  B N94            107
801   7 59          B     PTCTL                                    U   4  1802  B O37            107
802   7 60   INSER  S     SEQNO                                    U   4  1806  S A67            107
803   7 61   LOOP3  B     READ                                     U   4  1810  B L24            107
804   7 62          BW    SERCH,INSW                               U   8  1814  V V84 ?73 1       108
805   7 63          BW    SERCH,DELSW                              U   8  1822  V V84 ?79 1       108
806   7 64          B     DOOUT                                    U   4  1830  B L07            108
807   7 65          B     PRINT                                    U   4  1834  B O72            108
808   7 66          B     WTAP2                                    U   4  1838  B M95            108
809   7 67          B     LOOP3                                    U   4  1842  B Y10            108
810   7 68   *
811   7 69   * DELETE AND/OR INSERT PARTS
812   7 70   *
813   7 71   PARTL  S     XR3&2                                    U   4  1846  S 101            108
814   7 72          BWZ   SOME,21,2                                U   8  1850  V Y81 021 2       109
815   7 73          C     24,@  @                                  U   7  1858  C 024 ?41         109
816   7 74          BE    ALL                                      U   5  1865  B X42 S          109
817   7 75          A     &2,XR3                                   U   7  1870  A ?47 099         109
818   7 76          SW    23                                       U   4  1877  , 023            109
819   7 77   *
820   7 78   * SCAN FOR VALUES OF OPERANDS
821   7 79   *
822   7 80   SOME   SW    OPSW#1                                   U   4  1881  , ?48            109
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
823  7 81   TEST1  BCE   TWOOP,21&X3,,                             U   8  1885  B Z16 0B1 ,        110
824  7 82          C     22&X3,@  @                                U   7  1893  C 0B2 ?41          110
825  7 83          BE    TWOOP                                     U   5  1900  B Z16 S            110
826  7 84          A     &1,XR3                                    U   7  1905  A ?49 099          110
827  7 85          B     TEST1                                     U   4  1912  B Y85              110
828  7 86   TWOOP  ZA    20&X3,WK1#4                               U   7  1916  ? 0B0 ?53          110
829  7 87          A     @0@,WK1                                   U   7  1923  A ?54 ?53          111
830  7 88          BCE   NXTOP,21&X3,,                             U   8  1930  B Z42 0B1 ,        111
831  7 89          B     OUT                                       U   4  1938  B !08             111
832  7 90   NXTOP  SW    22&X3                                     U   4  1942  , 0B2             111
833  7 91          SBR   XR2                                       U   4  1946  H 094             111
834  7 92   ADD    A     &1,XR3                                    U   7  1950  A ?49 099          111
835  7 93          C     22&X3,@  @                                U   7  1957  C 0B2 ?41          112
836  7 94          BU    ADD                                       U   5  1964  B Z50 /            112
837  7 95          ZA    20&X3,WK2#4                               U   7  1969  ? 0B0 ?58          112
838  7 96          A     @0@,WK2                                   U   7  1976  A ?54 ?58          112
839  7 97          C     WK1,WK2                                   U   7  1983  C ?53 ?58          112
840  7 98          BL    BADST                                     U   5  1990  B Q59 T            112
841  7 99          BE    ONOP                                      U   5  1995  B K20 S            113
842  8 00   IS2OP  CW    OPSW                                      U   4  2000  ) ?48              113
843  8 01   CLRWM  CW    1&X2                                      U   4  2004  ) 0!1              113
844  8 02   OUT    CW    23                                        U   4  2008  ) 023              113
845  8 03          BW    *&8,OPSW                                  U   8  2012  V !27 ?48 1        113
846  8 04          MCW   @DELET@,218                              U   7  2020  M ?63 218          113
847  8 05          B     PTCTL                                     U   4  2027  B O37              113
848  8 06   *
849  8 07   * SEARCH FOR FIRST STATEMENT
850  8 08   *
851  8 09   COMP   C     WK1,SEQNO                                 U   7  2031  C ?53 A67          114
852  8 10          BE    GOTIT                                     U   5  2038  B !70 S            114
853  8 11          A     &1,SEQNO                                  U   7  2043  A ?49 A67          114
854  8 12          B     WTAP2                                     U   4  2050  B M95              114
855  8 13          B     RDTP                                      U   4  2054  B M17              114
856  8 14          BW    NTFND,HEDSW                               U   8  2058  V Q84 ?91 1        114
857  8 15          B     COMP                                      U   4  2066  B !31             114
858  8 16   *
859  8 17   * FIRST STATEMENT FOUND
860  8 18   *
861  8 19   GOTIT  BW    QINSR,OPSW                                U   8  2070  V J46 ?48 1        115
862  8 20   *
863  8 21   * SEARCH FOR SECOND STATEMENT
864  8 22   *
865  8 23   COMP2  B     PRINT                                     U   4  2078  B O72              115
866  8 24          B     RDTP                                      U   4  2082  B M17              115
867  8 25          C     WK2,SEQNO                                 U   7  2086  C ?58 A67          115
868  8 26          BH    BSPC                                      U   5  2093  B J10 U            115
869  8 27          BW    NTFND,HEDSW                               U   8  2098  V Q84 ?91 1        115
870  8 28          B     COMP2                                     U   4  2106  B !78             116
871  8 29   *
872  8 30   * SECOND STATEMENT FOUND
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SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
873   8 31   *
874   8 32   BSPC   BSP   SYSTP                                   U   5  2110  U %U1 B           116
875   8 33          CS    IMAGE&79                                U   4  2115  / 180             116
876   8 34          S     &1,SEQNO                                U   7  2119  S ?49 A67         116
877   8 35   THRU   BW    LOOP3,DELSW                             U   8  2126  V Y10 ?79 1       116
878   8 36          B     DOCTL                                   U   4  2134  B N94            116
879   8 37          B     PTCTL                                   U   4  2138  B O37            116
880   8 38          B     INSR&4                                  U   4  2142  B J77            117
881   8 39   *
882   8 40   * TEST INSERT OR DELETE
883   8 41   *
884   8 42   QINSR  BW    INSR,INSW                               U   8  2146  V J73 ?73 1       117
885   8 43          B     PRINT                                   U   4  2154  B O72            117
886   8 44          S     &1,SEQNO                                U   7  2158  S ?49 A67         117
887   8 45          CS    IMAGE&79                                U   4  2165  / 180            117
888   8 46          B     THRU                                    U   4  2169  B J26            117
889   8 47   *
890   8 48   * INSERT STATEMENTS
891   8 49   *
892   8 50   INSR   B     WTAP2                                   U   4  2173  B M95            117
893   8 51          B     READ                                    U   4  2177  B L24            118
894   8 52          BW    SERCH,INSW                              U   8  2181  V V84 ?73 1       118
895   8 53          BW    SERCH,DELSW                             U   8  2189  V V84 ?79 1       118
896   8 54          B     DOOUT                                   U   4  2197  B L07            118
897   8 55          CW    SEQSW#1                                 U   4  2201  ) ?64            118
898   8 56          B     PRINT                                   U   4  2205  B O72            118
899   8 57          S     &1,SEQNO                                U   7  2209  S ?49 A67         118
900   8 58          B     INSR                                    U   4  2216  B J73            119
901   8 59   ONOP   BW    IS2OP,INSW                              U   8  2220  V !00 ?73 1       119
902   8 60          SW    OPSW                                    U   4  2228  , ?48            119
903   8 61          B     CLRWM                                   U   4  2232  B !04            119
904   8 62   *
905   8 63   * REPLICATE LIBRARY
906   8 64   *
907   8 65   REPET  B     WTAP2                                   U   4  2236  B M95            119
908   8 66   CLNUP  B     RDTP                                    U   4  2240  B M17            119
909   8 67          B     WTAP2                                   U   4  2244  B M95            119
910   8 68          BW    FINAL,ENDSW                             U   8  2248  V K60 ?98 1       120
911   8 69          B     CLNUP                                   U   4  2256  B K40            120
912   8 70   *
913   8 71   * END OF UPDATE - GO TO COPY ROUTINE
914   8 72   *
915   8 73   FINAL  WTM   OUTAP                                   U   5  2260  U %U6 M           120
916   8 74          MCW   &INPUT&13,NOIS2&6                       U   7  2265  M ?67 780         120
917   8 75          CW    LIBSW,EOFSW                             U   7  2272  ) |79 |80        120
918   8 76          CW    UPDSW                                   U   4  2279  ) /26            120
919   8 77          CS    332                                     U   4  2283  / 332            120
920   8 78          CS                                            U   1  2287  /                121
921   8 79          CC    1                                       U   2  2288  F 1              121
922   8 80   BYP1   RT    SYSTP,IMAGE                             U   8  2290  M %U1 101 R       121
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
923  8 81          BEF   REOUT                                   U   5  2298  B 593 K           121
924  8 82          B     BYP1                                    U   4  2303  B K90             121
925  8 83   *
926  8 84   * SET UP INSERT CARD
927  8 85   *
928  8 86   DOOUT  SBR   OUTXT&3                                 U   4  2307  H L23             121
929  8 87          MCW   80,IMAGE&79                            U   7  2311  M 080 180         121
930  8 88          MCW                                           U   1  2318  M                122
931  8 89          MCW                                           U   1  2319  M                122
932  8 90   OUTXT  B     0                                       U   4  2320  B 000            122
933  8 91   *
934  8 92   * READ CARD SUBROUTINE
935  8 93   *
936  8 94   READ   SBR   CDXT&3                                 U   4  2324  H M08             122
937  8 95          BW    RDCD,LSTSW                              U   8  2328  V L40 ?85 1       122
938  8 96          B     CLNUP                                   U   4  2336  B K40            122
939  8 97   RDCD   R                                             U   1  2340  1                122
940  8 98          CW    INSW,DELSW                              U   7  2341  ) ?73 ?79        123
941  8 99          C     20,@INSER@                              U   7  2348  C 020 ?72        123
942  9 00          BU    CKDEL                                   U   5  2355  B L68 /          123
943  9 01          SW    INSW#1                                  U   4  2360  , ?73            123
944  9 02          B     CDXT-5                                  U   4  2364  B M00            123
945  9 03   CKDEL  C     20,@DELET@                              U   7  2368  C 020 ?78        123
946  9 04          BU    CKREP                                   U   5  2375  B L88 /          123
947  9 05          SW    DELSW#1                                 U   4  2380  , ?79            124
948  9 06          B     CDXT-5                                  U   4  2384  B M00            124
949  9 07   CKREP  C     20,@REPET@                              U   7  2388  C 020 ?84        124
950  9 08          BE    REPET                                   U   5  2395  B K36 S          124
951  9 09          BLC   LSTCD                                   U   5  2400  B M09 A          124
952  9 10   CDXT   B     0                                       U   4  2405  B 000            124
953  9 11   LSTCD  CW    LSTSW#1                                 U   4  2409  ) ?85            124
954  9 12          B     CDXT                                    U   4  2413  B M05            125
955  9 13   *
956  9 14   * READ TAPE SUBROUTINE
957  9 15   *
958  9 16   RDTP   SBR   RTXT&3                                 U   4  2417  H M94             125
959  9 17          RT    SYSTP,IMAGE                             U   8  2421  M %U1 101 R       125
960  9 18          SW    IMAGE&80                                U   4  2429  , 181            125
961  9 19          DCW   @N0000000000@                           U  10  2442                   125
962  9 20          B     NOISE                                   U   4  2443  B 759            125
963  9 21          BER   RDERR                                   U   5  2447  B 798 L          125
964  9 22          CW    HEDSW,ENDSW                             U   7  2452  ) ?91 ?98        126
965  9 23          C     IMAGE&19,@HEADR@                        U   7  2459  C 120 ?90        126
966  9 24          BU    RTXT                                    U   5  2466  B M91 /          126
967  9 25          SW    HEDSW#1                                 U   4  2471  , ?91            126
968  9 26          C     IMAGE&10,@999999@                       U   7  2475  C 111 ?97        126
969  9 27          BU    RTXT                                    U   5  2482  B M91 /          126
970  9 28          SW    ENDSW#1                                 U   4  2487  , ?98            126
971  9 29   RTXT   B     0                                       U   4  2491  B 000            127
972  9 30   *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

 973  9 31   * WRITE TAPE SUBROUTINE
 974  9 32   *
 975  9 33   WTAP2  SBR   WT2XT&3                                    U   4  2495  H N31             127
 976  9 34          C     IMAGE&79,BLANK                            U   7  2499  C 180 ?27          127
 977  9 35          BE    WT2XT                                     U   5  2506  B N28 S           127
 978  9 36          WT    OUTAP,IMAGE                               U   8  2511  M %U6 101 W       127
 979  9 37          BER   WTERR                                    U   5  2519  B 928 L           127
 980  9 38          CS    IMAGE&79                                  U   4  2524  / 180             127
 981  9 39   WT2XT  B     0                                         U   4  2528  B 000             128
 982  9 40   *
 983  9 41   * PRINT HEADING
 984  9 42   *
 985  9 43   HEAD   SBR   HDXT&3                                    U   4  2532  H N93             128
 986  9 44          CS    332                                       U   4  2536  / 332             128
 987  9 45          CS                                              U   1  2540  /                 128
 988  9 46          MCW   @1401 AUTOCODER - LIBRARY CHANGES@,251    U   7  2541  M A30 251         128
 989  9 47          MCW   @PAGE@,275                                U   7  2548  M A34 275         128
 990  9 48          A     &1,PGNO#3                                 U   7  2555  A ?49 A37         128
 991  9 49          MCS   PGNO,279                                 U   7  2562  Z A37 279         129
 992  9 50          W                                               U   1  2569  2                 129
 993  9 51          CC    K                                         U   2  2570  F K               129
 994  9 52          CS    279                                       U   4  2572  / 279             129
 995  9 53          MCW   @SEQ  LABEL  OP    OPERANDS@,227         U   7  2576  M A63 227         129
 996  9 54          W                                               U   1  2583  2                 129
 997  9 55          CC    K                                         U   2  2584  F K               129
 998  9 56          CS    228                                       U   4  2586  / 228             130
 999  9 57   HDXT   B     0                                         U   4  2590  B 000             130
1000  9 58   *
1001  9 59   * SET UP CONTROL CARD FOR PRINTING
1002  9 60   *
1003  9 61   DOCTL  SBR   CTLXT&3                                   U   4  2594  H O36             130
1004  9 62          CC    K                                         U   2  2598  F K               130
1005  9 63          CS    332                                       U   4  2600  / 332             130
1006  9 64          CS                                              U   1  2604  /                 130
1007  9 65          MCW   72,271                                   U   7  2605  M 072 271         130
1008  9 66          MCW   22,221                                   U   7  2612  M 022 221         131
1009  9 67          MCW   20,218                                   U   7  2619  M 020 218         131
1010  9 68          MCW   11,212                                   U   7  2626  M 011 212         131
1011  9 69   CTLXT  B     0                                         U   4  2633  B 000             131
1012  9 70   *
1013  9 71   * PRINT CONTROL CARD
1014  9 72   *
1015  9 73   PTCTL  SBR   PTCXT&3                                   U   4  2637  H O57             131
1016  9 74          W                                               U   1  2641  2                 131
1017  9 75          CC    J                                         U   2  2642  F J               131
1018  9 76          CS    332                                       U   4  2644  / 332             132
1019  9 77          CS                                              U   1  2648  /                 132
1020  9 78          BCV   NEWPG                                     U   5  2649  B O58 @           132
1021  9 79   PTCXT  B     0                                         U   4  2654  B 000             132
1022  9 80   *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

1023  9 81   * NEW PAGE
1024  9 82   *
1025  9 83   NEWPG  SBR   NEWXT&3                                           U   4  2658  H O71              132
1026  9 84          CC    1                                                 U   2  2662  F 1                132
1027  9 85          B     HEAD                                              U   4  2664  B N32              132
1028  9 86   NEWXT  B     0                                                 U   4  2668  B 000              133
1029  9 87   *
1030  9 88   * PRINT STATEMENTS
1031  9 89   *
1032  9 90   PRINT  SBR   PTXT&3                                            U   4  2672  H P74              133
1033  9 91          SW    220,214                                           U   7  2676  , 220 214          133
1034  9 92          SW    207                                               U   4  2683  , 207              133
1035  9 93          BCE   COMNT,IMAGE&5,*                                   U   8  2687  B P32 106 *         133
1036  9 94          MCW   IMAGE&71,271                                      U   7  2695  M 172 271          133
1037  9 95          MCW   IMAGE&19,218                                      U   7  2702  M 120 218          134
1038  9 96          MCW   IMAGE&10,212                                      U   7  2709  M 111 212          134
1039  9 97   TSTSQ  BW    SEQNC,SEQSW                                       U   8  2716  V P45 ?64 1        134
1040  9 98          SW    SEQSW                                             U   4  2724  , ?64              134
1041  9 99          B     BUMP                                              U   4  2728  B P53              134
1042 10 00   COMNT  MCW   IMAGE&71,273                                      U   7  2732  M 172 273          134
1043 10 01          MCW                                                     U   1  2739  M                  134
1044 10 02          MCW                                                     U   1  2740  M                  135
1045 10 03          B     TSTSQ                                             U   4  2741  B P16              135
1046 10 04   SEQNC  MN    SEQNO,204                                         U   7  2745  D A67 204          135
1047 10 05          MCS                                                     U   1  2752  Z                  135
1048 10 06   BUMP   A     &1,SEQNO#4                                        U   7  2753  A ?49 A67          135
1049 10 07          W                                                       U   1  2760  2                  135
1050 10 08          CS    332                                               U   4  2761  / 332              135
1051 10 09          CS                                                      U   1  2765  /                  136
1052 10 10          BCV   NEWPG                                             U   5  2766  B O58 @            136
1053 10 11   PTXT   B     0                                                 U   4  2771  B 000              136
1054 10 12   *
1055 10 13   * SEQUENCE ERROR
1056 10 14   *
1057 10 15   QUIT   CS    332                                               U   4  2775  / 332              136
1058 10 16          CS                                                      U   1  2779  /                  136
1059 10 17          MCW   @INPUT CARDS OUT OF SEQUENCE - START OVER@,240    U   7  2780  M B07 240          136
1060 10 18          W                                                       U   1  2787  2                  136
1061 10 19          CC    1                                                 U   2  2788  F 1                137
1062 10 20   HALT2  H     0,133                                             U   7  2790  . 000 133          137
1063 10 21          B     HALT2                                             U   4  2797  B P90              137
1064 10 22   *
1065 10 23   * SUBROUTINE UNKNOWN
1066 10 24   *
1067 10 25   UNKWN  BWZ   ISUNK,21,2                                        U   8  2801  V Q21 021 2        137
1068 10 26          C     24,@  @                                           U   7  2809  C 024 ?41          137
1069 10 27          BE    BACK                                              U   5  2816  B X22 S            137
1070 10 28   ISUNK  MCW   @SUBROUTINE UNKNOWN@,299                         U   7  2821  M B25 299          138
1071 10 29          W                                                       U   1  2828  2                  138
1072 10 30          CC    L                                                 U   2  2829  F L                138
```

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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1073 10 31          CS    299                                        U   4  2831  / 299              138
1074 10 32   LOOP4   B     READ                                       U   4  2835  B L24              138
1075 10 33          BW    SERCH,INSW                                 U   8  2839  V V84 ?73 1        138
1076 10 34          BW    SERCH,DELSW                                U   8  2847  V V84 ?79 1        138
1077 10 35          B     LOOP4                                      U   4  2855  B Q35              139
1078 10 36   *
1079 10 37   * BAD CONTROL CARD
1080 10 38   *
1081 10 39   BADST  MCW   @BAD STATEMENT@,299                        U   7  2859  M B38 299          139
1082 10 40          W                                                U   1  2866  2                  139
1083 10 41          CC    L                                          U   2  2867  F L                139
1084 10 42          CS    299                                        U   4  2869  / 299              139
1085 10 43          CW    1&X2,23                                    U   7  2873  ) 0!1 023          139
1086 10 44          B     LOOP4                                      U   4  2880  B Q35              139
1087 10 45   *
1088 10 46   * STATEMENT DOES NOT EXIST IN SUBROUTINE
1089 10 47   *
1090 10 48   NTFND  MCW   @STATEMENT DOES NOT EXIST@,299             U   7  2884  M B62 299          140
1091 10 49          W                                                U   1  2891  2                  140
1092 10 50          CC    L                                          U   2  2892  F L                140
1093 10 51          CS    299                                        U   4  2894  / 299              140
1094 10 52          BW    END99,ENDSW                                U   8  2898  V R10 ?98 1        140
1095 10 53          B     LOOP4                                      U   4  2906  B Q35              140
1096 10 54   *
1097 10 55   * END OF LIBRARY REACHED BEFORE ROUTINE FOUND
1098 10 56   *
1099 10 57   END99  MCW   @SUBROUTINE UNKNOWN@,299                   U   7  2910  M B80 299          140
1100 10 58          W                                                U   1  2917  2                  141
1101 10 59          CC    L                                          U   2  2918  F L                141
1102 10 60          CS    299                                        U   4  2920  / 299              141
1103 10 61          MCW   @END OF LIBRARY REACHED@,222               U   7  2924  M C02 222          141
1104 10 62          W                                                U   1  2931  2                  141
1105 10 63          BSP   SYSTP                                      U   5  2932  U %U1 B            141
1106 10 64          CS    IMAGE&79                                   U   4  2937  / 180              141
1107 10 65   LOOP6  B     READ                                       U   4  2941  B L24              142
1108 10 66          B     LOOP6                                      U   4  2945  B R41              142
1109 10 67          DCW   #50                                        U  50  2998                      144
1110 10 68   BLANK  DC    #29                                        U  29  3027                      145
1111 10 69          LTORG *                                          U          3028
        731         DCW   &IMAGE&13                                  U   3  3030  114        ADCON  145
        746               @999999@                                   U   6  3036             LIT    145
        748  NAME         #03                                        U   3  3039             AREA   146
                          @  @                                       U   2  3041             LIT    146
        786               @DELET@                                    U   5  3046             LIT    146
                          &2                                         U   1  3047             LIT    146
        822  OPSW         #01                                        U   1  3048             AREA   146
                          &1                                         U   1  3049             LIT    146
        828  WK1          #04                                        U   4  3053             AREA   146
                          @0@                                        U   1  3054             LIT    147
        837  WK2          #04                                        U   4  3058             AREA   147
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		846			@DELET@	U	5	3063		LIT	147
		897	SEQSW		#01	U	1	3064		AREA	147
		916			&INPUT&13	U	3	3067	V13	ADCON	147
		941			@INSER@	U	5	3072		LIT	147
		943	INSW		#01	U	1	3073		AREA	147
		945			@DELET@	U	5	3078		LIT	148
		947	DELSW		#01	U	1	3079		AREA	148
		949			@REPET@	U	5	3084		LIT	148
		953	LSTSW		#01	U	1	3085		AREA	148
		965			@HEADR@	U	5	3090		LIT	148
		967	HEDSW		#01	U	1	3091		AREA	148
		968			@999999@	U	6	3097		LIT	148
		970	ENDSW		#01	U	1	3098		AREA	149
		988			@1401 AUTOCODER - LIBRARY CHANGES@	U	32	3130		LIT	149
					@PAGE@	U	4	3134		LIT	149
		990	PGNO		#03	U	3	3137		AREA	150
		995			@SEQ LABEL OP OPERANDS@	U	26	3163		LIT	150
		1048	SEQNO		#04	U	4	3167		AREA	150
		1059			@INPUT CARDS OUT OF SEQUENCE - START OVER@	U	40	3207		LIT	152
		1070			@SUBROUTINE UNKNOWN@	U	18	3225		LIT	152
		1081			@BAD STATEMENT@	U	13	3238		LIT	152
		1090			@STATEMENT DOES NOT EXIST@	U	24	3262		LIT	153
		1099			@SUBROUTINE UNKNOWN@	U	18	3280		LIT	154
		1103			@END OF LIBRARY REACHED@	U	22	3302		LIT	155
1112	10	70	3998	DCW	@}@	U	1	3998			156
1113	10	71		EX	0	U			B 000		157

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 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

1114 10 72          JOB   1401 AUTOCODER-PASS 1 OUTPUT LIBRARY -VERSION 3
1115 10 73          SFX   P
1116 10 74   SYSTP  EQU   %U1                                         P       %U1
1117 10 75   XR1    EQU   89                                          P       0089
1118 10 76   *
1119 10 77   * BEGIN PROGRAM
1120 10 78   *
1121 10 79          ORG   2000                                        P            2000
1122 10 80          SW    ENDOT                                       P   4   2000  , ?44              160
1123 10 81          LCA   ENDOT,181                                   P   7   2004  L ?44 181          160
1124 10 82          CS                                                P   1   2011  /                  160
1125 10 83          CS    80                                          P   4   2012  / 080              160
1126 10 84          SW    6,16                                        P   7   2016  , 006 016          160
1127 10 85          CS    332                                         P   4   2023  / 332              160
1128 10 86          CS                                                P   1   2027  /                  160
1129 10 87          CC    1                                           P   2   2028  F 1                161
1130 10 88          RWD   SYSTP                                       P   5   2030  U %U1 R            161
1131 10 89          RT    SYSTP,101                                   P   8   2035  M %U1 101 R        161
1132 10 90          CS    180                                         P   4   2043  / 180              161
1133 10 91          SW    106,116                                     P   7   2047  , 106 116          161
1134 10 92          SW    121                                         P   4   2054  , 121              161
1135 10 93          BSS   DOALL,E                                    P   5   2058  B L28 E            161
1136 10 94   *
1137 10 95   * PRINT AND/OR PUNCH SELECTED MACROS
1138 10 96   *
1139 10 97          CW    HDRSW                                       P   4   2063  ) R32              162
1140 10 98   READ   CC    1                                           P   2   2067  F 1                162
1141 10 99          B     PRTHD                                       P   4   2069  B N59              162
1142 11 00          R                                                 P   1   2073  1                  162
1143 11 01          MCW   @2@,OPCOD                                   P   7   2074  M Q90 O69          162
1144 11 02          C     20,@PRINT@                                  P   7   2081  C 020 Q95          162
1145 11 03          BE    SELMC                                       P   5   2088  B J19 S            162
1146 11 04          C     20,@PUNCH@                                  P   7   2093  C 020 R00          163
1147 11 05          BU    ERROR                                       P   5   2100  B N06 /            163
1148 11 06   *
1149 11 07   * PUNCH OPTION
1150 11 08   *
1151 11 09          A     &4,OPCOD                                    P   7   2105  A R01 O69          163
1152 11 10          MN    &4,OPSAV#1                                  P   7   2112  D R01 R02          163
1153 11 11   *
1154 11 12   * SEARCH FOR MACRO
1155 11 13   *
1156 11 14   SELMC  C     8,NAME#3                                    P   7   2119  C 008 R05          163
1157 11 15          BE    TSTLC                                       P   5   2126  B K96 S            163
1158 11 16          MCW   20,218                                      P   7   2131  M 020 218          164
1159 11 17          MCW   11,212                                      P   7   2138  M 011 212          164
1160 11 18          BL    RDTP2                                       P   5   2145  B J85 T            164
1161 11 19          RWD   SYSTP                                       P   5   2150  U %U1 R            164
1162 11 20          LCA   ENDOT,181                                   P   7   2155  L ?44 181          164
1163 11 21          RT    SYSTP,101                                   P   8   2162  M %U1 101 R        164
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 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
1164 11 22          CS    180                                          P   4  2170  / 180             165
1165 11 23          SW    106,116                                      P   7  2174  , 106 116         165
1166 11 24          SW    121                                          P   4  2181  , 121             165
1167 11 25   RDTP2   RT    SYSTP,101                                    P   8  2185  M %U1 101 R       165
1168 11 26          B     NOISE                                        P   4  2193  B P67             165
1169 11 27          BER   RDERR                                        P   5  2197  B Q06 L           165
1170 11 28          C     111,@999999@                                 P   7  2202  C 111 R11         165
1171 11 29          BE    UNKN                                         P   5  2209  B L05 S           166
1172 11 30          C     120,@HEADR@                                  P   7  2214  C 120 R16         166
1173 11 31          BU    RDTP2                                        P   5  2221  B J85 /           166
1174 11 32          C     8,108                                        P   7  2226  C 008 108         166
1175 11 33          BU    RDTP2                                        P   5  2233  B J85 /           166
1176 11 34   *
1177 11 35   * DESIRED MACRO FOUND
1178 11 36   *
1179 11 37          MCW   8,NAME                                       P   7  2238  M 008 R05         166
1180 11 38          CC    K                                            P   2  2245  F K              166
1181 11 39          W                                                  P   1  2247  2                167
1182 11 40          S     SEQNO                                        P   4  2248  S R48            167
1183 11 41          B     INSER                                        P   4  2252  B N17            167
1184 11 42          CC    K                                            P   2  2256  F K              167
1185 11 43   PTAGN  B     PRINT                                        P   4  2258  B N81            167
1186 11 44          RT    SYSTP,101                                    P   8  2262  M %U1 101 R       167
1187 11 45          B     NOISE                                        P   4  2270  B P67            167
1188 11 46          BER   RDERR                                        P   5  2274  B Q06 L          168
1189 11 47          C     120,@HEADR@                                  P   7  2279  C 120 R21         168
1190 11 48          BU    PTAGN                                        P   5  2286  B K58 /           168
1191 11 49          BSP   SYSTP                                        P   5  2291  U %U1 B           168
1192 11 50   *
1193 11 51   * TEST END OF RUN
1194 11 52   *
1195 11 53   TSTLC  BLC   EOJOB                                        P   5  2296  B M54 A           168
1196 11 54          B     READ                                         P   4  2301  B !67            168
1197 11 55   *
1198 11 56   * MACRO NOT ON TAPE
1199 11 57   *
1200 11 58   UNKN   MCW   @UNKNOWN@,299                                P   7  2305  M R28 299         168
1201 11 59          W                                                  P   1  2312  2                169
1202 11 60          CS    299                                          P   4  2313  / 299            169
1203 11 61          MCW   @999@,NAME                                   P   7  2317  M R31 R05        169
1204 11 62          B     TSTLC                                        P   4  2324  B K96            169
1205 11 63   *
1206 11 64   * PRINT AND/OR PUNCH ALL OR PRINT HEADERS ONLY
1207 11 65   *
1208 11 66   DOALL  BSS   SETUP,D                                      P   5  2328  B L60 D           169
1209 11 67          CW    HDRSW#1                                      P   4  2333  ) R32             169
1210 11 68          BSS   *&5,G                                        P   5  2337  B L46 G           169
1211 11 69          B     SETUP                                        P   4  2342  B L60             170
1212 11 70   *
1213 11 71   * PUNCH ALL
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1214 11 72   *
1215 11 73          A     &4,OPCOD                                P   7  2346  A R01 O69          170
1216 11 74          MN    &4,OPSAV                                P   7  2353  D R01 R02          170
1217 11 75   SETUP  B     HEAD1                                   P   4  2360  B P19              170
1218 11 76          CW    HDSW1#1                                 P   4  2364  ) R33              170
1219 11 77          B     PRTHD                                   P   4  2368  B N59              170
1220 11 78   RDTP   RT    SYSTP,101                               P   8  2372  M %U1 101 R        170
1221 11 79          B     NOISE                                   P   4  2380  B P67              171
1222 11 80          BER   RDERR                                   P   5  2384  B Q06 L            171
1223 11 81          C     111,@999999@                            P   7  2389  C 111 R39          171
1224 11 82          BE    EOJOB                                   P   5  2396  B M54 S            171
1225 11 83          C     120,@HEADR@                             P   7  2401  C 120 R44          171
1226 11 84          BU    DOPNT                                   P   5  2408  B M35 /            171
1227 11 85          B     INSER                                   P   4  2413  B N17              171
1228 11 86          CC    K                                       P   2  2417  F K                172
1229 11 87          SBR   PRTXT&3,*&6                             P   7  2419  H O83 M31          172
1230 11 88          BCV   NEWPG                                   P   5  2426  B O97 @            172
1231 11 89          S     SEQNO#4                                 P   4  2431  S R48              172
1232 11 90   DOPNT  B     PRINT                                   P   4  2435  B N81              172
1233 11 91          SW    106,116                                 P   7  2439  , 106 116          172
1234 11 92          SW    121                                     P   4  2446  , 121              172
1235 11 93          B     RDTP                                    P   4  2450  B L72              173
1236 11 94   *
1237 11 95   * END OF JOB
1238 11 96   *
1239 11 97   EOJOB  CS    332                                     P   4  2454  / 332              173
1240 11 98          CS                                            P   1  2458  /                  173
1241 11 99          CC    K                                       P   2  2459  F K                173
1242 12 00          MCW   @END OF LIBRARY@,214                    P   7  2461  M R62 214          173
1243 12 01          W                                             P   1  2468  2                  173
1244 12 02          CC    1                                       P   2  2469  F 1                173
1245 12 03          CS    180                                     P   4  2471  / 180              174
1246 12 04          BCE   CLRPH,OPSAV,4                           P   8  2475  B M99 R02 4        174
1247 12 05   RWD    RWD   SYSTP                                   P   5  2483  U %U1 R            174
1248 12 06   HALT   H     0,155                                   P   7  2488  . 000 155          174
1249 12 07          B     HALT                                    P   4  2495  B M88              174
1250 12 08   CLRPH  P                                             P   1  2499  4                  174
1251 12 09          SS    8                                       P   2  2500  K 8                174
1252 12 10          B     RWD                                     P   4  2502  B M83              175
1253 12 11   *
1254 12 12   * INCORRECT INPUT CARD
1255 12 13   *
1256 12 14   ERROR  H     0,144                                   P   7  2506  . 000 144          175
1257 12 15          B     TSTLC                                   P   4  2513  B K96              175
1258 12 16   INSER  SBR   INSXT&3                                 P   4  2517  H N58              175
1259 12 17          MCW   @     @,105                             P   7  2521  M R67 105          175
1260 12 18          MCW   @INSER@,120                             P   7  2528  M R72 120          175
1261 12 19          BCE   *&5,OPSAV,4                             P   8  2535  B N47 R02 4        176
1262 12 20          B     *&2                                     P   4  2543  B N48              176
1263 12 21          P                                             P   1  2547  4                  176
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1264 12 22          MCW   @HEADR@,120                               P   7  2548  M R77 120          176
1265 12 23   INSXT   B     0                                         P   4  2555  B 000              176
1266 12 24   *
1267 12 25   * PRINT HEADING
1268 12 26   *
1269 12 27   PRTHD   SBR   HDXT&3                                    P   4  2559  H N80              176
1270 12 28          MCW   @SEQ  LABEL  OP    OPERANDS@,227         P   7  2563  M ?03 227          176
1271 12 29          W                                               P   1  2570  2                 177
1272 12 30          CC    K                                         P   2  2571  F K               177
1273 12 31          CS    228                                       P   4  2573  / 228             177
1274 12 32   HDXT   B     0                                         P   4  2577  B 000             177
1275 12 33   *
1276 12 34   * PRINT STATEMENT
1277 12 35   *
1278 12 36   PRINT  SBR   PRTXT&3                                   P   4  2581  H O83              177
1279 12 37          C     120,@HEADR@                               P   7  2585  C 120 ?08          177
1280 12 38          BE    DOHDR                                     P   5  2592  B O05 S            177
1281 12 39          BW    CLR,HDRSW                                 P   8  2597  V O70 R32 1        178
1282 12 40   DOHDR  CS    332                                       P   4  2605  / 332             178
1283 12 41          CS                                              P   1  2609  /                 178
1284 12 42          BCE   COMNT,106,*                               P   8  2610  B O84 106 *        178
1285 12 43          MCW   172,271                                   P   7  2618  M 172 271          178
1286 12 44          MCW   120,218                                   P   7  2625  M 120 218          178
1287 12 45          MCW   111,212                                   P   7  2632  M 111 212          179
1288 12 46   DOSEQ  MN    SEQNO,204                                 P   7  2639  D R48 204          179
1289 12 47          MCS                                             P   1  2646  Z                 179
1290 12 48          MN    SEQNO,104                                 P   7  2647  D R48 104          179
1291 12 49          MCW                                             P   1  2654  M                 179
1292 12 50          A     &1,SEQNO                                  P   7  2655  A ?09 R48          179
1293 12 51          MCW   @ @,105                                   P   7  2662  M ?10 105          179
1294 12 52   OPCOD  W                                               P   1  2669  2                 180
1295 12 53   CLR    CS    332                                       P   4  2670  / 332             180
1296 12 54          CS                                              P   1  2674  /                 180
1297 12 55          BCV   NEWPG                                     P   5  2675  B O97 @            180
1298 12 56   PRTXT  B     0                                         P   4  2680  B 000             180
1299 12 57   COMNT  MCW   172,273                                   P   7  2684  M 172 273          180
1300 12 58          MCW                                             P   1  2691  M                 180
1301 12 59          MCW                                             P   1  2692  M                 181
1302 12 60          B     DOSEQ                                     P   4  2693  B O39              181
1303 12 61   *
1304 12 62   * START NEW PAGE
1305 12 63   *
1306 12 64   NEWPG  CC    1                                         P   2  2697  F 1               181
1307 12 65          BW    *&5,HDSW1                                 P   8  2699  V P11 R33 1        181
1308 12 66          B     HEAD1                                     P   4  2707  B P19             181
1309 12 67          B     PRTHD                                     P   4  2711  B N59             181
1310 12 68          B     PRTXT                                     P   4  2715  B O80             181
1311 12 69   *
1312 12 70   * PRINT MAIN HEADING
1313 12 71   *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1314 12 72   HEAD1  SBR   HD2XT&3                                    P  4  2719  H P66              182
1315 12 73          CS    332                                        P  4  2723  / 332              182
1316 12 74          CS                                               P  1  2727  /                  182
1317 12 75          MCW   @1401 AUTOCODER - LIBRARY@,243             P  7  2728  M ?34 243          182
1318 12 76          MCW   @PAGE@,275                                 P  7  2735  M ?38 275          182
1319 12 77          A     &1,PGNO#3                                  P  7  2742  A ?09 ?41          182
1320 12 78          MCS   PGNO,279                                   P  7  2749  Z ?41 279          182
1321 12 79          W                                                P  1  2756  2                  183
1322 12 80          CC    L                                          P  2  2757  F L                183
1323 12 81          CS    299                                        P  4  2759  / 299              183
1324 12 82   HD2XT  B     0                                          P  4  2763  B 000              183
1325 12 83   *
1326 12 84   * TEST FOR NOISE RECORDS
1327 12 85   *
1328 12 86   NOISE  SBR   NOSXT&3                                    P  4  2767  H Q05              183
1329 12 87          SBR   XR1                                        P  4  2771  H 089              183
1330 12 88          MZ    &9,XR1                                     P  7  2775  Y ?42 089          183
1331 12 89          BCE   4000-12&X1,113,}                          P  8  2782  B IY8 113 }        184
1332 12 90          CHAIN 12                                                                MACRO
1333                BCE                                              P  1  2790  B           GEN    184
1334                BCE                                              P  1  2791  B           GEN    184
1335                BCE                                              P  1  2792  B           GEN    184
1336                BCE                                              P  1  2793  B           GEN    184
1337                BCE                                              P  1  2794  B           GEN    184
1338                BCE                                              P  1  2795  B           GEN    184
1339                BCE                                              P  1  2796  B           GEN    185
1340                BCE                                              P  1  2797  B           GEN    185
1341                BCE                                              P  1  2798  B           GEN    185
1342                BCE                                              P  1  2799  B           GEN    185
1343                BCE                                              P  1  2800  B           GEN    185
1344                BCE                                              P  1  2801  B           GEN    185
1345 12 91   NOSXT  B     0                                          P  4  2802  B 000              185
1346 12 92   *
1347 12 93   * READ REDUNDANCY ROUTINE
1348 12 94   *
1349 12 95   RDERR  SBR   RDXT&3                                    P  4  2806  H Q38              186
1350 12 96   BSP    BSP   SYSTP                                      P  5  2810  U %U1 B            186
1351 12 97          MCW   &9,RDCT#1                                  P  7  2815  M ?42 ?43          186
1352 12 98   RDTRY  RT    SYSTP,101                                  P  8  2822  M %U1 101 R        186
1353 12 99          BER   *&5                                        P  5  2830  B Q39 L            186
1354 13 00   RDXT   B     0                                          P  4  2835  B 000              186
1355 13 01          BSP   SYSTP                                      P  5  2839  U %U1 B            186
1356 13 02          S     &1,RDCT                                    P  7  2844  S ?09 ?43          187
1357 13 03          BWZ   RDTRY,RDCT,B                              P  8  2851  V Q22 ?43 B        187
1358 13 04          H     0,191                                      P  7  2859  . 000 191         187
1359 13 05          RT    SYSTP,101                                  P  8  2866  M %U1 101 R        187
1360 13 06          BSS   BSP,E                                      P  5  2874  B Q10 E            187
1361 13 07          H     0,111                                      P  7  2879  . 000 111         188
1362 13 08          B     RDXT                                       P  4  2886  B Q35              188
1363 13 09          LTORG *                                          P           2890
```

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
				DCW	@2@	P	1	2890		LIT	188
		1144			@PRINT@	P	5	2895		LIT	188
		1146			@PUNCH@	P	5	2900		LIT	188
					&4	P	1	2901		LIT	188
		1152	OPSAV		#01	P	1	2902		AREA	188
		1156	NAME		#03	P	3	2905		AREA	189
		1170			@999999@	P	6	2911		LIT	189
		1172			@HEADR@	P	5	2916		LIT	189
		1189			@HEADR@	P	5	2921		LIT	189
		1200			@UNKNOWN@	P	7	2928		LIT	189
					@999@	P	3	2931		LIT	189
		1209	HDRSW		#01	P	1	2932		AREA	189
		1218	HDSW1		#01	P	1	2933		AREA	190
		1223			@999999@	P	6	2939		LIT	190
		1225			@HEADR@	P	5	2944		LIT	190
		1231	SEQNO		#04	P	4	2948		AREA	190
		1242			@END OF LIBRARY@	P	14	2962		LIT	190
		1259			@ @	P	5	2967		LIT	190
		1260			@INSER@	P	5	2972		LIT	191
		1264			@HEADR@	P	5	2977		LIT	191
		1270			@SEQ LABEL OP OPERANDS@	P	26	3003		LIT	191
		1279			@HEADR@	P	5	3008		LIT	192
					&1	P	1	3009		LIT	192
					@ @	P	1	3010		LIT	192
		1317			@1401 AUTOCODER - LIBRARY@	P	24	3034		LIT	192
					@PAGE@	P	4	3038		LIT	192
		1319	PGNO		#03	P	3	3041		AREA	192
					&9	P	1	3042		LIT	192
		1351	RDCT		#01	P	1	3043		AREA	193
1364	13	10	ENDOT	DCW	@}@	P	1	3044			193
1365	13	11		EX	0	P			B 000		194
1366	13	12		END	0	P			/ 000 080		197

3 ERRORS

```
CLEAR STORAGE 1     ,008015,019026,030,034041,045,053,0570571026                                    1
CLEAR STORAGE 2     L068112,102106,113/101099/I99,027A070028)027B0010270B0261,001/001113I0          2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039             ,0010011040          3


                          1401 AUTOCODER-PASS 2-PROCESS IOCS-MAIN 2 -VERSION 3       3722L              PAGE    1


 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

 101  1 01   001    JOB   1401 AUTOCODER-PASS 2-PROCESS IOCS-MAIN 2 -VERSION 3
 102  1 02          CTL   630 1
 103  1 03          SFX   I
 104  1 04   OTHER  EQU   START                                                   I      0101
 105  1 05   MINUS2 EQU   2                                                       I      0002
 106  1 06   MINUS3 EQU   3                                                       I      0003
 107  1 07   DIOCSB EQU   LABDIO-4                                                I      0576
 108  1 08          ORG   1                                                       I             0001
 109  1 09   MAINX  DA    1X86                                                    I      0001   0086                4              ADDR
 110  1 10   LMAINX EQU   *                                                       I      0086
 111  1 11          XINIT INDEX1,INDEX2,INDEX3                                                                MACRO
 112     01   INDEX1 EQU   089                                                     I      0089                GEN
 113     02   089    DCW   000                                                     I   3  0089                GEN       4
 114     04   091    DC    00                                                      I   2  0091                GEN       4
 115     05   INDEX2 EQU   094                                                     I      0094                GEN
 116     06   094    DCW   000                                                     I   3  0094                GEN       4
 117     08   096    DC    00                                                      I   2  0096                GEN       4
 118     09   INDEX3 EQU   099                                                     I      0099                GEN
 119     10   099    DCW   000                                                     I   3  0099                GEN       4
 120     12   100    DC    0                                                       I   1  0100                GEN       4
 121  1 12   *
 122  1 13   *               START OF  MAIN  LINE
 123  1 14   *
 124  1 15          ORG   101                                                     I             0101
 125  1 16   START  RWD   4                                                       I   5  0101  U %U4 R             4
 126  1 17          RWD   5                                                       I   5  0106  U %U5 R             4
 127  1 18          RWD   6                                                       I   5  0111  U %U6 R             4
 128  1 19          BSS   OVLAY2,B                                                I   5  0116  B P32 B             5
 129  1 20          B     REDREC                                                  I   4  0121  B 774               5
 130  1 21          C     MAINX&17, @JOB@                                         I   7  0125  C 018 W05           5
 131  1 22          BU    CMCTL                                                   I   5  0132  B 157 /             5
 132  1 23          CC    1                                                       I   2  0137  F 1                 5
 133  1 24          MCW   80,280                                                  I   7  0139  M 080 280           5
 134  1 25          W                                                             I   1  0146  2                   5
 135  1 26          CC    1                                                       I   2  0147  F 1                 6
 136  1 27          B     WRTREC                                                  I   4  0149  B 721               6
 137  1 28          B     REDREC                                                  I   4  0153  B 774               6
 138  1 29   CMCTL  C     MAINX&17, @CTL@                                         I   7  0157  C 018 W08           6
 139  1 30          BU    FIND                                                    I   5  0164  B 642 /             6
 140  1 31          BCE   ROBIN,MAINX&23,1                                       I   8  0169  B 623 024 1         6
 141  1 32          MN    MAINX&21,*&8                                            I   7  0177  D 022 191           6
 142  1 33          BCE   ROBIN,@456@,                                           I   8  0184  B 623 W11           7
 143  1 34          CHAIN 2                                                                                   MACRO
 144                BCE                                                           I   1  0192  B                 GEN       7
 145                BCE                                                           I   1  0193  B                 GEN       7
 146  1 350         B     BLUE                                                    I   4  0194  B 627                       7
 147  1 36          ORG   201                                                     I             0201
```

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SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

148  1 37          DA    1X132                                                    I      0201   0332                7
149  1 38                6,6                                                      I      0206              FIELD    7
150  1 39   DTFTAB EQU   LABDTF-1                                                 I      0349
151  1 40          ORG   333                                                      I             0333
152  1 41   EITHER B     NEXREC                                                   I   4  0333  B 681               8
153  1 42   *
154  1 43   *              CONTROL CARD INFORMATION
155  1 44   *
156  1 45   SPECL  DCW   @*@                                                      I   1  0337                      8
157  1 46   SYMNM  DCW   #3                                                       I   3  0340                      8
158  1 47   *
159  1 48   *              DTF  MAJOR  TABLE
160  1 49   *
161  1 50          DCW   @,@                                                      I   1  0341                      8
162  1 51          DCW   @;@                 COBOL   YES                          I   1  0342                      8
163  1 52          DCW   @;@                 EXITS   YES                          I   1  0343                      8
164  1 53   FILENM DCW   #6                                                       I   6  0349                      8
165  1 54   LABDTF DCW   @;@           1    INPUT         1     FILETYPE         I   1  0350                      9
166  1 55          DCW   @;@           2    OUTPUT        2                      I   1  0351                      9
167  1 56          DCW   @;@           3    TAPE          3                      I   1  0352                      9
168  1 57          DCW   @;@           4    READER        4                      I   1  0353                      9
169  1 58          DCW   @;@           5    PUNCH         5                      I   1  0354                      9
170  1 59          DCW   @;@           6    PRINTER       6                      I   1  0355                      9
171  1 60          DCW   @;@           7    LOAD          7     MODEPAR          I   1  0356                      9
172  1 61          DCW   @;@           8    CHECKPOINT     8    FEATURES         I   1  0357                     10
173  1 62          DCW   @;@           9    NUMBER        9     CHANDRIVE        I   1  0358                     10
174  1 63          DCW   @;@          10    NUMBER       10     CARDPOC          I   1  0359                     10
175  1 64          DCW   @;@          11    NUMBER       11     ALTTAPE          I   1  0360                     10
176  1 65          DCW   @;@          12    BLOCKED      12     RECFORM          I   1  0361                     10
177  1 66          DCW   @;@          13    UNBLOCKED    13                      I   1  0362                     10
178  1 67          DCW   @;@          14    MIXED        14                      I   1  0363                     10
179  1 68          DCW   @;@          15    VARIABLE     15                      I   1  0364                     11
180  1 69          DCW   @   ;@       16-19 NUMBER       16     SIZEREC          I   4  0368                     11
181  1 70          DCW   @;@          20    NUMBER       17     PADDING          I   1  0369                     11
182  1 71          DCW   @   ;@       21-24 NUMBER       18     BLOCKSIZE        I   4  0373                     11
183  1 72          DCW   @         ;@   25-34    LABELS  19     IOAREAS          I  10  0383                     11
184  1 73          DCW   @         ;@   35-44            20                      I  10  0393                     11
185  1 74          DCW   @         ;@  45-54  LABEL      21     WORKAREA         I  10  0403                     12
186  1 75          DCW   @;@          55    NUMBER       22     INDEXREG         I   1  0404                     12
187  1 76          DCW   @         ;@  56-65  LABEL      23     EORADDR          I  10  0414                     12
188  1 77          DCW   @         ;@   66-75  LABEL     24     WLRADDR          I  10  0424                     12
189  1 78          DCW   @;@          76    RECORD       25     TOTALS           I   1  0425                     12
190  1 79          DCW   @   ;@       77-80 HASH         26                      I   4  0429                     12
191  1 80          DCW   @;@          81    STANDARD     27     TYPELABEL        I   1  0430                     12
192  1 81          DCW   @;@          82    NONSTANDARD  28                      I   1  0431                     13
193  1 82          DCW   @;@          83    TM           29                      I   1  0432                     13
194  1 83          DCW   @;@          84    ALL          30     CHECKLABEL       I   1  0433                     13
195  1 84          DCW   @;@          85    IDENT        31                      I   1  0434                     13
196  1 85          DCW   @  ;@                                                   I   3  0437                     13
197  1 86          DCW   @    ;@                                                 I   5  0442                     13
```

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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
198  1 87           DCW   @         ;@                                      I  10  0452                      13
199  1 88           DCW   @    ;@       104-108 NUMBER     35     SERIALNUM  I   5  0457                      14
200  1 89           DCW   @         ;@  109-118            39     EX1ADDR    I  10  0467                      14
201  1 90           DCW   @         ;@  119-128            40     EX2ADDR    I  10  0477                      14
202  1 91           DCW   @         ;@  129-138            41     EX3ADDR    I  10  0487                      14
203  1 92           DCW   @         ;@  139-148            42     EX4ADDR    I  10  0497                      15
204  1 93           DCW   @         ;@  149-158            43     EX5ADDR    I  10  0507                      15
205  1 94           DCW   @         ;@  159-168            44     EX6ADDR    I  10  0517                      15
206  1 95           DCW   @         ;@  169-178            45     EX7ADDR    I  10  0527                      16
207  1 96           DCW   @         ;@  179-188            46     EX8ADDR    I  10  0537                      16
208  1 97           DCW   @         ;@  189-198            47     VARBUILD   I  10  0547                      16
209  1 98           DCW   @;@           199  UNLOAD       37     REWIND     I   1  0548                      16
210  1 99           DCW   @;@           200  NOREWD       38                I   1  0549                      16
211  2 00           DCW   @;@            9      201                OVERFLOW   I   1  0550                      16
212  2 01           DCW   @;@           12      202                           I   1  0551                      16
213  2 02           DCW   @  ;@        203-205   NUMBER          REELSEQP   I   3  0554                      17
214  2 03           DCW   @;@               206                  FORMCNTL   I   1  0555                      17
215  2 04           DCW   #9                                                I   9  0564                      17
216  2 05           DCW   @;@            216     ADDRESS         OVERFLOW   I   1  0565                      17
217  2 06           DCW   @ @                                               I   1  0566                      17
218  2 07   ENDDTF  DCW   @ @                                               I   1  0567                      17
219  2 08   *
220  2 09   *               DIOCS MAJOR TABLE
221  2 10   *
222  2 11           DCW   @,@                                               I   1  0568                      17
223  2 12   DIVIDE  EQU   *                                                 I      0568
224  2 13           DCW   @;@                40   PAR       OUT  TAPEUSE   I   1  0569                      18
225  2 14           DCW   @;@                39   PAR       INP  TAPEUSE   I   1  0570                      18
226  2 15           DCW   @;@                38   PAR       YES  EXITS     I   1  0571                      18
227  2 16   LABDIO  DCW   #9                          DIOCSORG              I   9  0580                      18
228  2 17           DCW   @;@                 5                            I   1  0581                      18
229  2 18           DCW   @;@                 6       OVERLAP    FEATURES   I   1  0582                      18
230  2 19           DCW   @;@                 7       TAPE       IODEVICES  I   1  0583                      18
231  2 20           DCW   @;@                 8       READER                I   1  0584                      19
232  2 21           DCW   @;@                 9       PUNCH                 I   1  0585                      19
233  2 22           DCW   @;@                10       PRINTER               I   1  0586                      19
234  2 23           DCW   @;@                11       STANDARD   LABELDEF   I   1  0587                      19
235  2 24           DCW   @;@                12       NONSTANDARD           I   1  0588                      19
236  2 25           DCW   @;@                13       MIXED                 I   1  0589                      19
237  2 26           DCW   @;@                14       CHECK                 I   1  0590                      19
238  2 27           DCW   @;@                15       IDENT                 I   1  0591                      20
239  2 28           DCW   @;@                16       TM                    I   1  0592                      20
240  2 29           DCW   @;@                17       YES        ALTDRIVE   I   1  0593                      20
241  2 30           DCW   @;@                18       1          EXITS      I   1  0594                      20
242  2 31           DCW   @;@                19       2                     I   1  0595                      20
243  2 32           DCW   @;@                20       3                     I   1  0596                      20
244  2 33           DCW   @;@                21       4                     I   1  0597                      20
245  2 34           DCW   @;@                22       5                     I   1  0598                      21
246  2 35           DCW   @;@                23       6                     I   1  0599                      21
247  2 36           DCW   @;@                24       7                     I   1  0600                      21
```

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SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

248  2 37          DCW   @;@                25        8                          I   1  0601                        21
249  2 38          DCW   @;@                RDLIN     LABELDEF                   I   1  0602                        21
250  2 39          DCW   @;@                27        729        DRIVETYPE       I   1  0603                        21
251  2 40          DCW   @;@                28        7330                       I   1  0604                        21
252  2 41          DCW   @;@                29        NORWD      RWDOPTION       I   1  0605                        22
253  2 42          DCW   @;@                30        UNLOAD                     I   1  0606                        22
254  2 43          DCW   @;@                31   TAPE,#          READERROR       I   1  0607                        22
255  2 44          DCW   @;@                32   SCAN                           I   1  0608                        22
256  2 45          DCW   @;@                33   PROCESS                        I   1  0609                        22
257  2 46          DCW   @;@                CLEAN    READERROR                   I   1  0610                        22
258  2 47          DCW   @;@                35        YES        INPVAR          I   1  0611                        22
259  2 48          DCW   @;@                36        YES        INPFXNO         I   1  0612                        23
260  2 49          DCW   @;@                37        RECORD     COUNTS          I   1  0613                        23
261  2 50          DCW   @;@          38    HASH                                I   1  0614                        23
262  2 51          DCW   #5                                                     I   5  0619                        23
263  2 52          DCW   @;@          39-44        CHECKPOINT                    I   1  0620                        23
264  2 53          DCW   @;@           45   RELEASE             FEATURES       I   1  0621                        23
265  2 54   ENDDIO DCW   @;@           46   STORAGE                             I   1  0622                        23
266  2 55   *
267  2 56   *
268  2 57   ROBIN  S     SPECL                                                  I   4  0623  S 337                 24
269  5 575  BLUE   MCW   MAINX&25,NORDRL#1                                      I   7  0627  M 026 W12             24
270  2 58   THRU   B     WRTREC                                                 I   4  0634  B 721                 24
271  2 59          B     REDREC                                                 I   4  0638  B 774                 24
272  2 60   FIND   C     MAINX&19,KDIOCS                                        I   7  0642  C 020 V71             24
273  2 61          BE    GOTIT                                                  I   5  0649  B 670 S               24
274  2 62   *
275  2 63   *
276  2 64   *             READ IN PHASE 2
277  2 65   *
278  2 66   *
279  2 67          BCE   THRU,MAINX&5,*                                         I   8  0654  B 634 006 *           24
280  2 68   PREPS2 B     SAVCD                                                  I   4  0662  B O98                 25
281  2 69          B     PASS2                                                  I   4  0666  B V06                 25
282  2 70   GOTIT  MCW   @M@,LENGTH                                             I   7  0670  M W13 743             25
283  2 72   WHOM   B     WRTREC                                                 I   4  0677  B 721                 25
284  2 73   NEXREC B     REDREC                                                 I   4  0681  B 774                 25
285  2 74   GAMMA  BCE   WHOM,MAINX&5,*                                         I   8  0685  B 677 006 *           25
286  2 75          C     MAINX&17,@DTF@                                         I   7  0693  C 018 W16             25
287  2 76          BE    DTFND                                                  I   5  0700  B 713 S               26
288  2 77          B     WRTREC                                                 I   4  0705  B 721                 26
289  2 78          B     UPPER                                                  I   4  0709  B 821                 26
290  2 79   DTFND  B     SAVCD                                                  I   4  0713  B O98                 26
291  2 80          B     CRDOUT                                                 I   4  0717  B J68                 26
292  2 81   *
293  2 82   *             WRITE  ROUTINE
294  2 83   *
295  2 84   WRTREC SBR   WRTEXT&3                                               I   4  0721  H 761                 26
296  2 85          MCW   LMAINX,LOPUT-1                                         I   7  0725  M 086 I97             26
297  2 86          SW    LOPUT                                                  I   4  0732  , I98                 27
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
298  2 87          MCW   GMWMRK,LOPUT                             I  7  0736  M 773 I98          27
299  2 88   LENGTH NOP   @W@,OUTPT&74                            I  7  0743  N W17 I86          27
300  2 89   SHORT  B     CTAPE                                    I  4  0750  B S22              27
301  2 90          NOP   TDF6                                     I  4  0754  N 764              27
302  2 91   WRTEXT B     0                                        I  4  0758  B 000              27
303  2 92   TDF6   DCW   000                                      I  3  0764                       27
304  2 93          WT    6,OUTPT                                  I  8  0765  M %U6 I12 W        28
305  2 94   GMWMRK DC    @}@                                      I  1  0773                       28
306  2 95   *
307  2 96   *               READ ROUTINE
308  2 97   *
309  2 98   REDREC SBR   REDEXT&3                                 I  4  0774  H 809              28
310  2 99          CS    LMAINX                                   I  4  0778  / 086              28
311  3 00          BSS   RTWED,C                                  I  5  0782  B 798 C            28
312  3 01          BLC   DTFOUT                                   I  5  0787  B M46 A            28
313  3 02          R                                              I  1  0792  1                  28
314  3 03          SSB   REDEXT,1                                 I  5  0793  K 806 1            28
315  3 04   RTWED  B     CTAPE                                    I  4  0798  B S22              29
316  3 05          NOP   TDF4                                     I  4  0802  N 812              29
317  3 06   REDEXT B     0                                        I  4  0806  B 000              29
318  3 07   TDF4   DCW   &DTFOUT                                  I  3  0812  M46                29
319  3 08          RT    4,MAINX                                  I  8  0813  M %U4 001 R        29
320  3 09   *
321  3 10   *               LOOK UP LABEL
322  3 11   *
323  3 12   UPPER  CW    SCNSW#1                                  I  4  0821  ) W18              29
324  3 13          BCE   NEXREC,MAINX&20,                         I  8  0825  B 681 021          29
325  3 14          SBR   CHAIR&3,LSTPAR                           I  7  0833  H O66 O75          30
326  3 15          S     INDEX2&1                                 I  4  0840  S 095              30
327  3 16          SBR   INDEX3,LBLTBL                           I  7  0844  H 099 H46          30
328  3 17   COMPR  C     MAINX&7,0&X3                             I  7  0851  C 008 0?0          30
329  3 18          SBR   INDEX3                                   I  4  0858  H 099              30
330  3 19          BE    COMEQ                                    I  5  0862  B 984 S            30
331  3 20          BCE   NEXREC,0&X3,@                            I  8  0867  B 681 0?0 @        31
332  3 21          A     @7@,INDEX2                               I  7  0875  A W19 094          31
333  3 22          B     COMPR                                    I  4  0882  B 851              31
334  3 23   BRTBL  B     ACTSCN                                   I  4  0886  B /13              31
335  3 24          DCW   &DIOCSB&36              INPFXNO          I  3  0892  612                31
336  3 25          B     REASB                                    I  4  0893  B /73              31
337  3 26          DCW   #3                      READERROR        I  3  0899                       31
338  3 27          B     OPDSCN                                   I  4  0900  B O14              32
339  3 28          DCW   &RWDTB                  RWDOPTION        I  3  0906  F95                32
340  3 29          B     OPDSCN                                   I  4  0907  B O14              32
341  3 30          DCW   &DRITB                  DRIVETYPE        I  3  0913  F82                32
342  3 31          B     OPDSCN                                   I  4  0914  B O14              32
343  3 32          DCW   &COUTB                  COUNTS           I  3  0920  G08                32
344  3 33          B     ACTSCN                                   I  4  0921  B /13              32
345  3 34          DCW   &DIOCSB&35              VARINP           I  3  0927  611                33
346  3 35          B     EXISB                                    I  4  0928  B 992              33
347  3 36          DCW   #3                                       I  3  0934                       33
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
348  3 37           B     ACTSCN                                   I   4  0935  B /13              33
349  3 38           DCW   &DIOCSB&17                  ALTDRIVE      I   3  0941  593                33
350  3 39           B     OPDSCN                                   I   4  0942  B O14              33
351  3 40           DCW   &LABTB                     LABELDEF      I   3  0948  F20                33
352  3 41           B     OPDSCN                                   I   4  0949  B O14              34
353  3 42           DCW   &IODTB                     IODEVICES     I   3  0955  E77                34
354  3 43           B     OPDSCN                                   I   4  0956  B O14              34
355  3 44           DCW   &FEATB                     FEATURES      I   3  0962  E52                34
356  3 45           B     DIOSB                      DIOCSORG      I   4  0963  B /47              34
357  3 46           DCW   &DIOCSB&5                                I   3  0969  581                34
358  3 47           B     DIOSB                                    I   4  0970  B /47              34
359  3 48           DCW   DIOCSB&44                               I   3  0976  620                35
360  3 49           B     OPDSCN                                   I   4  0977  B O14              35
361  3 50           DCW   &TAPTB                                  I   3  0983  E33                35
362  3 51   COMEQ   S     INDEX3&1                                 I   4  0984  S 100              35
363  3 52           B     BRTBL&X2                                 I   4  0988  B 8Q6              35
364  3 53   *
365  3 54   EXISB   LCA   @$@,DIVIDE&3                            I   7  0992  L W20 571          35
366  3 55           B     OPDSCN                                   I   4  0999  B O14              35
367  3 56           DCW   &EXITB                      EXITS         I   3  1005  F69                36
368  3 57   *
369  3 58   NEWSCN  SBR   NWEXT&3                                  I   4  1006  H /04              36
370  3 59           MCW   @   @,OPDAR#3                           I   7  1010  M W23 W26          36
371  3 60           S     INDEX2&1                                 I   4  1017  S 095              36
372  3 61   NWSCNL  C     MAINX&21&X3,@  @                         I   7  1021  C 0B2 W28          36
373  3 62           SW    MAINX&20                                 I   4  1028  , 021              36
374  3 63           BE    FDBLK                                    I   5  1032  B |90 S            36
375  3 64           BCE   FOUND,MAINX&20&X3,,                     I   8  1037  B /05 0B1 ,        37
376  3 65           C     INDEX3,@52@                              I   7  1045  C 099 W30          37
377  3 66           BE    BLKFD                                    I   5  1052  B |97 S            37
378  3 67           MCW   MAINX&20&X3,OPDAR-2&X2                  I   7  1057  M 0B1 WK4          37
379  3 68           A     @1@,INDEX2                               I   7  1064  A W31 094          37
380  3 69           BCE   FOUND,INDEX2,3                          I   8  1071  B /05 094 3        38
381  3 70           A     @1@,INDEX3                               I   7  1079  A W31 099          38
382  3 71           B     NWSCNL                                   I   4  1086  B |21              38
383  3 72   FDBLK   A     @1@,INDEX3                               I   7  1090  A W31 099          38
384  3 73   BLKFD   SW    SCNSW                                    I   4  1097  , W18              38
385  3 74   NWEXT   B     0                                        I   4  1101  B 000              38
386  3 75   FOUND   B     SCANX                                    I   4  1105  B N55              38
387  3 76           B     NWEXT                                    I   4  1109  B /01              39
388  3 77   *
389  3 78   *               ACTUAL  SCAN  FOR YES
390  3 79   *
391  3 80   ACTSCN  SBR   INDEX1                                   I   4  1113  H 089              39
392  3 81           MCW   2&X1,INDEX1                            I   7  1117  M 0|2 089          39
393  3 82           C     MAINX&22,@YES@                           I   7  1124  C 023 W34          39
394  3 83           BU    ACTOUT                                   I   5  1131  B /43 /            39
395  3 84           LCA   @$@,0&X1                               I   7  1136  L W20 0|0          39
396  3 85   ACTOUT  B     EITHER                                   I   4  1143  B 333              39
397  3 86   *
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
398  3 87   *              DIOCSORG
399  3 88   *
400  3 89   DIOSB   SBR   INDEX1                                  I   4  1147  H 089              40
401  3 90           MCW   2&X1,INDEX1                            I   7  1151  M 0|2 089          40
402  3 91           B     SCANX                                   I   4  1158  B N55              40
403  3 92           LCA   MAINX&18&X3,0&X1                       I   7  1162  L 0A9 0|0          40
404  3 93           B     NEXREC                                  I   4  1169  B 681              40
405  3 94   *
406  3 95   *              READERROR
407  3 96   *
408  3 97   REASB   SBR   CHAIR&3,CHTAP                          I   7  1173  H O66 /87          40
409  3 98           B     OPDSCN                                  I   4  1180  B O14              40
410  3 99           DCW   &REATB                                  I   3  1186  G27                41
411  4 00   CHTAP   C     OPDAR,@TAP@                             I   7  1187  C W26 W37          41
412  4 01           BU    LSTPAR                                  I   5  1194  B O75 /            41
413  4 02           B     SCANX                                   I   4  1199  B N55              41
414  4 03           BCE   LSTPAR,MAINX&18&X3,                    I   8  1203  B O75 0A9          41
415  4 04           MCW   MAINX&18&X3,DIOCSB&31                  I   7  1211  M 0A9 607          41
416  4 05           B     LSTPAR                                  I   4  1218  B O75              41
417  4 06   *
418  4 07   *              COMBINATION READ/ WRITE ROUTINE
419  4 08   *
420  4 09   CTAPE   SBR   INDEX2                                  I   4  1222  H 094              42
421  4 10           SBR   ICONPR&3                               I   4  1226  H T43              42
422  4 11           MCW   3&X2,INDEX2                           I   7  1230  M 0!3 094          42
423  4 12           MCW   8&X2,ITAPEC&7                         I   7  1237  M 0!8 T01          42
424  4 13           MCW   0&X2,IEORC&3                          I   7  1244  M 0!0 T13          42
425  4 14           SW    ICOMPR&4                              I   4  1251  , T19              42
426  4 15           MCW   7&X2,ICOMPR&6                         I   7  1255  M 0!7 T21          43
427  4 16           A     @12@,ICOMPR&6                         I   7  1262  A W39 T21          43
428  4 17           CW    ICOMPR&4                              I   4  1269  ) T19              43
429  4 18           MN    ITAPEC&3,IHALT&6                      I   7  1273  D S97 U28          43
430  4 19           MN    ITAPEC&7,IHALT&6                      I   7  1280  D T01 U28          43
431  4 20           MCW   @9@,IERRCT#1                          I   7  1287  M W40 W41          43
432  4 21   ITAPEC  RT    0,0                                   I   8  1294  M %U0 000 R        44
433  4 22           BCE   IOMETS,ITAPEC&7,W                     I   8  1302  B T35 T01 W        44
434  4 23   IEORC   BEF   0                                     I   5  1310  B 000 K            44
435  4 24   ICOMPR  BCE   ITAPEC,0,}                           I   8  1315  B S94 000 }        44
436  4 25           CHAIN 12                                                        MACRO
437                 BCE                                       I   1  1323  B          GEN     44
438                 BCE                                       I   1  1324  B          GEN     44
439                 BCE                                       I   1  1325  B          GEN     44
440                 BCE                                       I   1  1326  B          GEN     45
441                 BCE                                       I   1  1327  B          GEN     45
442                 BCE                                       I   1  1328  B          GEN     45
443                 BCE                                       I   1  1329  B          GEN     45
444                 BCE                                       I   1  1330  B          GEN     45
445                 BCE                                       I   1  1331  B          GEN     45
446                 BCE                                       I   1  1332  B          GEN     45
447                 BCE                                       I   1  1333  B          GEN     46
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
448                 BCE                                           I  1  1334  B          GEN     46
449  4 26   IOMETS BER   IRWRED                                   I  5  1335  B T44 L             46
450  4 27   ICONPR B     0                                       I  4  1340  B 000               46
451  4 28   IRWRED S     @1@,IERRCT                              I  7  1344  S W31 W41           46
452  4 29          MN    ITAPEC&3,*&4                            I  7  1351  D S97 T61           46
453  4 30          BSP   0                                       I  5  1358  U %U0 B             46
454  4 31          BCE   ITROW,ITAPEC&7,W                       I  8  1363  B T83 T01 W         47
455  4 32          BM    IHALT,IERRCT                            I  8  1371  V U22 W41 K         47
456  4 33          B     ITAPEC                                  I  4  1379  B S94              47
457  4 34   ITROW  A     @1@,IERASC#2                            I  7  1383  A W31 W43          47
458  4 35          SKP   6                                       I  5  1390  U %U6 E            47
459  4 36          BCE   ICHALT,IERASC-1,5                      I  8  1395  B U07 W42 5        48
460  4 37          B     ITAPEC-7                                I  4  1403  B S87              48
461  4 38   ICHALT S     IERASC                                  I  4  1407  S W43              48
462  4 39          H     0,202                                   I  7  1411  . 000 202          48
463  4 40          B     ITAPEC-7                                I  4  1418  B S87              48
464  4 41   IHALT  H     0,200                                   I  7  1422  . 000 200          48
465  4 42          BSS   ITAPEC-7,E                              I  5  1429  B S87 E            48
466  4 43          MCW   ITAPEC&7,*&8                           I  7  1434  M T01 U48          49
467  4 44          RT    0,0                                     I  8  1441  M %U0 000 R        49
468  4 45          H     0,201                                   I  7  1449  . 000 201          49
469  4 46          B     ICONPR                                  I  4  1456  B T40              49
470  4 47   PASSI  LCA   ENDDIO,ENDDTF                           I  7  1460  L 622 567          49
471  4 48          LCA                                           I  1  1467  L                  49
472  4 49          SBR   EITHER&3,DIFREC                        I  7  1468  H 336 M06          50
473  4 50          MCW   &DTFTAB&X1,OPDFND&6                    I  7  1475  M W46 O93          50
474  4 51          LCA   186,LMAINX                             I  7  1482  L 186 086          50
475  4 52          B     WRTREC                                  I  4  1489  B 721              50
476  4 53          B     DTFNM                                   I  4  1493  B L91              50
477  4 54   ALTBY  B     BYPSS                                   I  4  1497  B C49              50
478  4 55          BSP   4                                       I  5  1501  U %U4 B            50
479  4 56   PASS2  RT    1,3997                                  I  8  1506  M %U1 I97 R        51
480  4 57          RT    1,3997                                  I  8  1514  M %U1 I97 R        51
481  4 58          SBR   TDF1&7,341                             I  7  1522  H P30 341          51
482  4 59          B     CTAPE                                   I  4  1529  B S22              51
483  4 60          NOP   TDF1                                    I  4  1533  N P23              51
484  4 61          B     OVLY3                                   I  4  1537  B 341              51
485  4 62   *
486  4 63   NUMERC SBR   INDEX1                                  I  4  1541  H 089              51
487  4 64          MCW   2&X1,INDEX1                             I  7  1545  M 0|2 089          52
488  4 65          SW    MAINX&20                                I  4  1552  , 021              52
489  4 66          MCW   MAINX&20,DTFTAB&X1                     I  7  1556  M 021 3U9          52
490  4 67          B     DIFREC                                  I  4  1563  B M06              52
491  4 68   KDIOCS DCW   @DIOCS@                                I  5  1571                     52
492  4 69   BLORB  B     SCANX                                   I  4  1572  B N55              52
493  4 70          A     MAINX&18&X3,BLOWA-1                     I  7  1576  A 0A9 W01          52
494  4 71          LCA   BLOWA-1,DTFTAB&24                       I  7  1583  L W01 373          53
495  4 72          S     BLOWA                                   I  4  1590  S W02              53
496  4 73          B     EITHER                                  I  4  1594  B 333              53
497  4 74   BLOWA  DCW   &00000                                  I  5  1602                     53
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

498  4 75          LTORG *                                                I             1603
                   DCW   @JOB@                                           I   3  1605              LIT     53
                         @CTL@                                           I   3  1608              LIT     53
                         @456@                                           I   3  1611              LIT     53
       269  NORDRL       #01                                             I   1  1612              AREA    54
                         @M@                                             I   1  1613              LIT     54
                         @DTF@                                           I   3  1616              LIT     54
                         @W@                                             I   1  1617              LIT     54
       323  SCNSW        #01                                             I   1  1618              AREA    54
                         @7@                                             I   1  1619              LIT     54
                         @$@                                             I   1  1620              LIT     54
                         @   @                                           I   3  1623              LIT     55
       370  OPDAR        #03                                             I   3  1626              AREA    55
                         @  @                                            I   2  1628              LIT     55
                         @52@                                            I   2  1630              LIT     55
                         @1@                                             I   1  1631              LIT     55
                         @YES@                                           I   3  1634              LIT     55
                         @TAP@                                           I   3  1637              LIT     55
                         @12@                                            I   2  1639              LIT     56
                         @9@                                             I   1  1640              LIT     56
       431  IERRCT       #01                                             I   1  1641              AREA    56
       457  IERASC       #02                                             I   2  1643              AREA    56
       473               &DTFTAB&X1                                      I   3  1646  3U9         ADCON   56
499  4 76          ORG   1649                                            I             1649
500  4 77   OVER   DCW   @}@                                             I   1  1649                      57
501  4 78          EX                                                    I             B 000               58
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
502  4 79           JOB   1401 AUTOCODER-PASS 2-PROCESS IOCS-MAIN 1 -VERSION 3
503  4 80           ORG   1650                                             I          1650
504  4 81           SFX   I
505  4 82   *
506  4 83   *               DTF  TABLE  OF  BRANCHES
507  4 84   *
508  4 85   DTFINT  SBR   INDEX3,DTFLAB                                    I   7  1650  H 099 H03           61
509  4 86           SBR   CHAIR&3,LSTPAR                                   I   7  1657  H O66 O75           61
510  4 87           BCE   DIFREC,MAINX&20,                                 I   8  1664  B M06 021           61
511  4 88           CW    SCNSW                                            I   4  1672  ) W18              61
512  4 89           C     MAINX&6,@EX@                                     I   7  1676  C 007 H48           61
513  4 90           BE    EXIRB                                            I   5  1683  B !31 S            61
514  4 91           S     INDEX2&1                                         I   4  1688  S 095              62
515  4 92   SEEK    C     MAINX&7,0&X3                                     I   7  1692  C 008 0?0          62
516  4 93           SBR   INDEX3                                          I   4  1699  H 099              62
517  4 94           BE    AGREE                                            I   5  1703  B Z35 S            62
518  4 95           BCE   DIFREC,0&X3,@                                    I   8  1708  B M06 0?0 @        62
519  4 96           A     @7@,INDEX2                                       I   7  1716  A H49 094          62
520  4 97           B     SEEK                                             I   4  1723  B W92              62
521  4 98   DTFBR   B     OPDSCN                                           I   4  1727  B O14              63
522  4 99           DCW   REWXZ                    REWIND                  I   3  1733  E00                63
523  5 00           B     ACTUAL                                           I   4  1734  B !89              63
524  5 01           DCW   &DTFTAB&205              REELSEQ                 I   3  1740  554                63
525  5 02           B     ACTUAL                                           I   4  1741  B !89              63
526  5 03           DCW   &DTFTAB&108              SERIALNUM               I   3  1747  457                63
527  5 04           B     HEARB                                            I   4  1748  B N37              63
528  5 05           DCW   &DTFTAB&103                                      I   3  1754  452                64
529  5 06           B     OPDSCN                                           I   4  1755  B O14              64
530  5 07           DCW   &CHEXZ                   CHECKLABEL              I   3  1761  D87                64
531  5 08           B     OPDSCN                                           I   4  1762  B O14              64
532  5 09           DCW   &TYPXZ                   TYPELABEL               I   3  1768  D74                64
533  5 10           B     TOTRB                                            I   4  1769  B Z81              64
534  5 11           DCW   #3                       TOTALS                  I   3  1775                     64
535  5 12           B     ACTUAL                                           I   4  1776  B !89              65
536  5 13           DCW   &DTFTAB&75               WLRADDR                 I   3  1782  424                65
537  5 14           B     ACTUAL                                           I   4  1783  B !89              65
538  5 15           DCW   &DTFTAB&65               EOFADDR                 I   3  1789  414                65
539  5 16           B     INDRB                                            I   4  1790  B !71              65
540  5 17           DCW   #3                       INDEXREG                I   3  1796                     65
541  5 18           B     ACTUAL                                           I   4  1797  B !89              65
542  5 19           DCW   &DTFTAB&54               WORKAREA                I   3  1803  403                66
543  5 20           B     IOARB                                            I   4  1804  B Z47              66
544  5 21           DCW   &DTFTAB&44               IOAREAS                 I   3  1810  393                66
545  5 22           B     BLORB                                            I   4  1811  B V72              66
546  5 23           DCW   &DTFTAB&24               BLOCKSIZE               I   3  1817  373                66
547  5 24           B     NUMERC                                           I   4  1818  B V41              66
548  5 25           DCW   @020@                    PADDING                 I   3  1824                     66
549  5 26           B     ACTUAL                                           I   4  1825  B !89              67
550  5 27           DCW   &DTFTAB&19               SIXEREC                 I   3  1831  368                67
551  5 28           B     OPDSCN                                           I   4  1832  B O14              67
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SEQ PG LIN  LABEL  OP    OPERANDS                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
552  5 29          DCW   &RECXZ                  RECFORM       I   3  1838  D55               67
553  5 30          B     NUMERC                                I   4  1839  B V41             67
554  5 31          DCW   @011@                   ALTTAPE       I   3  1845                    67
555  5 32          B     NUMERC                                I   4  1846  B V41             67
556  5 33          DCW   @010@                   CARDPOC       I   3  1852                    68
557  5 34          B     OPDSCN                                I   4  1853  B O14             68
558  5 35          DCW   &MODXZ                  MODEPAR       I   3  1859  D30               68
559  5 36          B     OPDSCN                                I   4  1860  B O14             68
560  5 37          DCW   &FILXZ                  FILETUPE      I   3  1866  D23               68
561  5 38          B     NUMERC                                I   4  1867  B V41             68
562  5 39          DCW   @009@                   CHANDRIVE     I   3  1873                    68
563  5 40          B     ACTUAL                                I   4  1874  B !89             69
564  5 41          DCW   DTFTAB&198              VARBUILD      I   3  1880  547               69
565  5 42          B     ACTSCN                                I   4  1881  B /13             69
566  5 43          DCW   &DTFTAB-7                             I   3  1887  342               69
567  5 44          B     NUMERC                                I   4  1888  B V41             69
568  5 45          DCW   @206@                                 I   3  1894                    69
569  5 46          B     OVERB                                 I   4  1895  B !06             69
570  5 47          DCW   #1                                    I   1  1899                    70
571  5 48          ORG   1900                                  I            1900
572  5 49          RTW   1,1                                   I   8  1900  L %U1 001 R       70
573  5 50          BER   HALT                                  I   5  1908  B Z21 L           70
574  5 51          CW    OVER                                  I   4  1913  ) W49             70
575  5 52          B     OTHER                                 I   4  1917  B 101             70
576  5 53  HALT    BSP   1                                     I   5  1921  U %U1 B           70
577  5 54          NOP   288                                   I   4  1926  N 288             70
578  5 55          H                                           I   1  1930  .                 71
579  5 56          B     1900                                  I   4  1931  B Z00             71
580  5 57  *
581  5 58  AGREE   S     INDEX3&1                              I   4  1935  S 100             71
582  5 59          SW    MAINX&20                              I   4  1939  , 021             71
583  5 60          B     DTFBR&X2                              I   4  1943  B XK7             71
584  5 61  *               IOAREAS
585  5 62  *
586  5 63  IOARB   B     SCANX                                 I   4  1947  B N55             71
587  5 64          LCA   MAINX&18&X3,DTFTAB&44                 I   7  1951  L 0A9 393         71
588  5 65          BW    EITHER,SCNSW                          I   8  1958  V 333 W18 1       72
589  5 66          B     SCANX                                 I   4  1966  B N55             72
590  5 67          LCA   MAINX&18&X3,DTFTAB&34                 I   7  1970  L 0A9 383         72
591  5 68          B     EITHER                                I   4  1977  B 333             72
592  5 69  *
593  5 70  *               TOTALS
594  5 71  *
595  5 72  TOTRB   SBR   CHAIR&3,TOTJK                        I   7  1981  H O66 Z95         72
596  5 73          B     OPDSCN                                I   4  1988  B O14             72
597  5 74          DCW   &TOTXZ                               I   3  1994  E20               72
598  5 75  TOTJK   LCA   MAINX&18&X3,DTFTAB&80                 I   7  1995  L 0A9 429         73
599  5 76          B     LSTPAR                                I   4  2002  B O75             73
600  5 77  OVERB   SBR   CHAIR&3,OVEJK                        I   7  2006  H O66 !20         73
601  5 78          B     OPDSCN                                I   4  2013  B O14             73
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
602   5 79           DCW   &OVEXZ                    OVERFLOW         I   3  2019  E13               73
603   5 80   OVEJK   LCA   MAINX&18&X3,DTFTAB&216                    I   7  2020  L 0A9 565         73
604   5 81           B     LSTPAR                                    I   4  2027  B O75             73
605   5 82   *
606   5 83   *               EXITS  ROUTINE
607   5 84   *
608   5 85   EXIRB   MCW   @1 8@,INDEX2                             I   7  2031  M H52 094         74
609   5 86           MN    MAINX&7,INDEX2-1                          I   7  2038  D 008 093         74
610   5 87           S     INDEX3&1                                  I   4  2045  S 100             74
611   5 88           B     SCANX                                     I   4  2049  B N55             74
612   5 89           LCA   MAINX&18&X3,DTFTAB&X2                    I   7  2053  L 0A9 3M9         74
613   5 90           LCA   @$@,DTFTAB-6                              I   7  2060  L H53 343         74
614   5 91           B     DIFREC                                    I   4  2067  B M06             75
615   5 92   *
616   5 93   *               INDEX  REGISTER
617   5 94   *
618   5 95   INDRB   MN    MAINX&21,DTFTAB&55                        I   7  2071  D 022 404         75
619   5 96           MZ    @ @,DTFTAB&55                             I   7  2078  Y H54 404         75
620   5 97           B     DIFREC                                    I   4  2085  B M06             75
621   5 98   *
622   5 99   *               LOAD  PARAMETERS - ACTUAL
623   6 00   *
624   6 01   ACTUAL  SBR   INDEX1                                    I   4  2089  H 089             75
625   6 015          BW    EITHER,SCNSW                              I   8  2093  V 333 W18 1       75
626   6 02           MCW   2&X1,INDEX1                              I   7  2101  M 0|2 089         76
627   6 03   SEARCH  B     SCANX                                     I   4  2108  B N55             76
628   6 04           LCA   MAINX&18&X3,0&X1                          I   7  2112  L 0A9 0|0         76
629   6 05           SBR   INDEX1                                    I   4  2119  H 089             76
630   6 06           BW    DIFREC,SCNSW                              I   8  2123  V M06 W18 1       76
631   6 07           B     SEARCH                                    I   4  2131  B J08             76
632   6 08   NEWWRT  SBR   WRTEXT&3                                  I   4  2135  H 761             76
633   6 09           MCW   LMAINX,LOPUT-1                            I   7  2139  M 086 I97         77
634   6 10           SW    OUTPT&80                                  I   4  2146  , I92             77
635   6 11           MCW   GMWMRK,OUTPT&80                           I   7  2150  M 773 I92         77
636   6 12   LONG    MCW   @*@,OUTPT&73                              I   7  2157  M H55 I85         77
637   6 13           B     SHORT                                     I   4  2164  B 750             77
638   6 14   *
639   6 15   *               OUTPUT  MACRO  STATEMENT  FOR  DIOC
640   6 16   *
641   6 17   CRDOUT  MN    @5@,TDF6&4                                I   7  2168  D H56 768         77
642   6 18           CS    LMAINX                                    I   4  2175  / 086             78
643   6 19           MCW   @55555@,MAINX&19                         I   7  2179  M H61 020         78
644   6 20           SBR   INDEX3,ENDDIO                             I   7  2186  H 099 622         78
645   6 21           B     GOOD&4                                    I   4  2193  B K01             78
646   6 22   GOOD    CS    LMAINX                                    I   4  2197  / 086             78
647   6 23           SW    1                                         I   4  2201  , 001             78
648   6 24           SBR   INDEX1,MAINX&20                          I   7  2205  H 089 021         78
649   6 25           MCW   @|@,MAINX&72                              I   7  2212  M H62 073         79
650   6 26   LODPAR  MCW   0&X3,WKAREA-1                             I   7  2219  M 0?0 L89         79
651   6 27           SBR   INDEX2                                    I   4  2226  H 094             79
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
652  6 28          MCW   INDEX1,SAVXL1#3                          I   7  2230  M 089 H65          79
653  6 29          MCM   1&X2,0&X1                                I   7  2237  P 0!1 0|0          79
654  6 30          SBR   INDEX1                                   I   4  2244  H 089              79
655  6 31          MCW   @, @,0&X1                               I   7  2248  M H67 0|0           80
656  6 32          BCE   CONTIN,MAINX&72,|                       I   8  2255  B L01 073 |         80
657  6 33          MCW   SAVXL1,INDEX1                           I   7  2263  M H65 089          80
658  6 34          SW    0&X1                                    I   4  2270  , 0|0              80
659  6 35          MCW   @  @,MAINX&79                           I   7  2274  M H69 080          80
660  6 36          MCW   MAINX&78                                I   4  2281  M 079              80
661  6 37          CW    0&X1                                    I   4  2285  ) 0|0              81
662  6 38          B     NEWWRT                                  I   4  2289  B J35              81
663  6 39          CW    OUTPT&80                                I   4  2293  ) I92              81
664  6 40          B     GOOD                                    I   4  2297  B J97              81
665  6 41  CONTIN MCW   0&X3,0&X3                               I   7  2301  M 0?0 0?0          81
666  6 42          SBR   INDEX3                                  I   4  2308  H 099              81
667  6 43  COMBLK C     0&X3,@ @                                I   7  2312  C 0?0 H54          81
668  6 44          SAR   INDEX3                                  I   4  2319  Q 099              82
669  6 45          BE    COMBLK                                  I   5  2323  B L12 S            82
670  6 46          A     @1@,INDEX3                              I   7  2328  A H70 099          82
671  6 47          B     ALLDIO,0&X3,,                           I   8  2335  B L47 0?0 ,        82
672  6 48          B     LODPAR                                  I   4  2343  B K19              82
673  6 49  ALLDIO MCW   @  @,0&X1                               I   7  2347  M H69 0|0          82
674  6 50          MCW   @ @,MAINX&72                            I   7  2354  M H54 073          83
675  6 51          B     NEWWRT                                  I   4  2361  B J35              83
676  6 52          CW    OUTPT&80                                I   4  2365  ) I92              83
677  6 53          MN    @6@,TDF6&4                              I   7  2369  D H71 768          83
678  6 54  BETTER B     PASSI                                   I   4  2376  B U60              83
679  6 55  WKAREA DCW   @          |@                           I  11  2390                     83
680  6 56  DTFNM  S     INDEX3&1                                I   4  2391  S 100              84
681  6 57          B     SCANX                                   I   4  2395  B N55              84
682  6 58          LCA   MAINX&18&X3,FILENM                      I   7  2399  L 0A9 349          84
683  6 59  DIFREC B     REDREC                                  I   4  2406  B 774              84
684  6 60  DELTA  BCE   ALPHA,MAINX&5,*                         I   8  2410  B M30 006 *        84
685  6 61          C     MAINX&19,@     @                        I   7  2418  C 020 H76          84
686  6 62          BU    DTFOUT                                  I   5  2425  B M46 /            84
687  6 63  ALPHA  B     WRTREC                                  I   4  2430  B 721              85
688  6 64          BCE   DIFREC,MAINX&5,*                       I   8  2434  B M06 006 *        85
689  6 65          B     DTFINT                                  I   4  2442  B W50              85
690  6 66  DTFOUT MN    @5@,TDF6&4                              I   7  2446  D H56 768          85
691  6 67          SBR   INDEX3,ENDDTF                           I   7  2453  H 099 567          85
692  6 68          B     SAVCD                                   I   4  2460  B O98              85
693  6 69          SBR   WALK&3,ALTBY                            I   7  2464  H Q99 U97          86
694  6 70          C     MAINX&17,@DTF@                          I   7  2471  C 018 H79          86
695  6 71          CS    LMAINX                                  I   4  2478  / 086              86
696  6 72          MCW   @33333@,MAINX&19                       I   7  2482  M H84 020          86
697  6 73          BE    SETDSW                                  I   5  2489  B N05 S            86
698  6 74  RIVER  SBR   BETTER&3,PASS2                          I   7  2494  H L79 V06          86
699  6 75          B     GOOD&4                                  I   4  2501  B K01              87
700  6 76  SETDSW SBR   BETTER&3,RNDTF                          I   7  2505  H L79 N16          87
701  6 77          B     GOOD&4                                  I   4  2512  B K01              87
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
702  6 78   RNDTF   RTW   1,341                                    I  8  2516  L %U1 341 R         87
703  6 79           BSP   1                                       I  5  2524  U %U1 B             87
704  6 80           CW    DTFGM                                   I  4  2529  ) 568               87
705  6 81           B     PASSI                                   I  4  2533  B U60               87
706  6 82   HEARB   B     SCANX                                   I  4  2537  B N55               88
707  6 83           MCW   MAINX&18&X3,DTFTAB&103                  I  7  2541  M 0A9 452           88
708  6 84           B     ACTUAL                                  I  4  2548  B !89              88
709  6 85           DCW   &DTFTAB&93                              I  3  2554  442                88
710  6 86   *
711  6 87   *               SCAN FOR A COMMA OR TWO BLANKS
712  6 88   *
713  6 89   SCANX   SBR   CLUBS&3                                 I  4  2555  H O13               88
714  6 90   SCANL   SW    MAINX&20                                I  4  2559  , 021               88
715  6 91           C     MAINX&21&X3,@  @                        I  7  2563  C 0B2 H69           88
716  6 92           A     @1@,INDEX3                              I  7  2570  A H70 099           89
717  6 93           BE    SETIT                                   I  5  2577  B O02 S             89
718  6 94           BCE   SETWMS,MAINX&19&X3,,                   I  8  2582  B O06 0B0 ,         89
719  6 95           C     INDEX3,@52@                             I  7  2590  C 099 H86           89
720  6 96           BU    SCANL                                   I  5  2597  B N59 /             89
721  6 97   SETIT   SW    SCNSW                                   I  4  2602  , W18              89
722  6 98   SETWMS  SW    MAINX&20&X3                             I  4  2606  , 0B1              90
723  6 99   CLUBS   B     0                                       I  4  2610  B 000              90
724  7 00   *
725  7 01   *               SCAN   OPERAND  TABLE
726  7 02   *
727  7 03   *
728  7 04   OPDSCN  SBR   INDEX2                                  I  4  2614  H 094               90
729  7 05           MCW   2&X2,SAVX2                             I  7  2618  M 0!2 H89           90
730  7 06   OPDRTN  B     NEWSCN                                  I  4  2625  B |06               90
731  7 07           MCW   SAVX2#3,INDEX2                         I  7  2629  M H89 094           90
732  7 08   SEEKOP  C     OPDAR,0&X2                              I  7  2636  C W26 0!0           90
733  7 09           SBR   INDEX2                                  I  4  2643  H 094               91
734  7 10           MCW   0&X2,INDEX1                            I  7  2647  M 0!0 089           91
735  7 11           SAR   INDEX2                                  I  4  2654  Q 094               91
736  7 12           BE    OPDFND                                  I  5  2658  B O87 S             91
737  7 13   CHAIR   BCE   LSTPAR,0&X2,@                          I  8  2663  B O75 0!0 @         91
738  7 14           B     SEEKOP                                  I  4  2671  B O36               91
739  7 15   LSTPAR  BW    EITHER,SCNSW                            I  8  2675  V 333 W18 1         92
740  7 16           B     OPDRTN                                  I  4  2683  B O25               92
741  7 17   OPDFND  LCA   @$@,DIOCSB&X1                          I  7  2687  L H53 5X6           92
742  7 18           B     LSTPAR                                  I  4  2694  B O75               92
743  7 19   SAVCD   SBR   SVCDX&3                                 I  4  2698  H P20               92
744  7 20           CS    186                                     I  4  2702  / 186               92
745  7 21           SW    101                                     I  4  2706  , 101               92
746  7 22           MCW   LMAINX,186                             I  7  2710  M 086 186           93
747  7 23   SVCDX   B     0                                       I  4  2717  B 000              93
748  7 24   *
749  7 25   *               READ  IN  OVERLAY  TWO
750  7 26   *
751  7 27   TDF1    DCW   #3                                      I  3  2723                     93
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
752  7 28           RTW   1,101                                    I  8  2724  L %U1 101 R         93
753  7 29   OVLAY2  SW    GMOVL2                                   I  4  2732  , 332              93
754  7 30           MCW   GMWMRK,GMOVL2                            I  7  2736  M 773 332          93
755  7 31           RT    1,101                                    I  8  2743  M %U1 101 R         94
756  7 32           B     CTAPE                                    I  4  2751  B S22              94
757  7 33           NOP   TDF1                                     I  4  2755  N P23              94
758  7 34           B     PUNCH                                    I  4  2759  B 101              94
759  7 35   *
760  7 36   *               ALTER PART OF IOCS
761  7 37   *
762  7 38   ALTER   B     CTAPE                                    I  4  2763  B S22              94
763  7 39           NOP   TDF4A                                    I  4  2767  N A35              94
764  7 40           MCW   OUTPT&7,SYMNM                           I  7  2771  M I19 340          94
765  7 41           BSS   OUTCL,C                                  I  5  2778  B 119 C            95
766  7 42           BSP   4                                        I  5  2783  U %U4 B            95
767  7 43           SBR   RIVER&6,TUNEL                           I  7  2788  H N00 Q88          95
768  7 44           SBR   PREPS2&3                                 I  4  2795  H 665              95
769  7 45           R                                              I  1  2799  1                  95
770  7 46           C     MAINX&17,@ALT@                           I  7  2800  C 018 H92          95
771  7 47           BU    WALK                                     I  5  2807  B Q96 /            95
772  7 48   HOMAL   B     SAVXX                                    I  4  2812  B C19              96
773  7 49           B     PACKX                                    I  4  2816  B R43              96
774  7 50   NOALTB  B     CTAPE                                    I  4  2820  B S22              96
775  7 51           NOP   TDF4A                                    I  4  2824  N A35              96
776  7 52           C     OUTPT&83,HLDA1                           I  7  2828  C I95 I02          96
777  7 53           BE    CHECK                                    I  5  2835  B ?05 S            96
778  7 54   PROPRE  C     OUTPT&17,@JOB@                           I  7  2840  C I29 H95          96
779  7 55   ALTS1   BU    ALTS2E                                   I  5  2847  B Q60 /            97
780  7 56           B     NOPJB                                    I  4  2852  B 205              97
781  7 57           B     NOTER                                    I  4  2856  B 220              97
782  7 58   ALTS2E  C     OUTPT&17,@CTL@                           I  7  2860  C I29 H98          97
783  7 59   ALTS2   BE    OUTCL                                    I  5  2867  B 119 S            97
784  7 60   SOLVED  MCW   OUTPT&85,LMAINX                         I  7  2872  M I97 086          97
785  7 61           SW    READS                                    I  4  2879  , I10              97
786  7 62   ALTIO   BSS   REGEN,G                                 I  5  2883  B A44 G            98
787  7 63   TUNEL   BW    BSPT4,READS                              I  8  2888  V R04 I10 1        98
788  7 64   WALK    B     SAVCD                                    I  4  2896  B O98              98
789  7 65           B     ALTBY                                    I  4  2900  B U97              98
790  7 66   BSPT4   BW    REGL,XCARDS                              I  8  2904  V R27 I09 1        98
791  7 67           MN    @5@,TDF6&4                               I  7  2912  D H56 768          98
792  7 68           B     NEWWRT                                   I  4  2919  B J35              99
793  7 69           B     REGL&5                                   I  4  2923  B R32              99
794  7 70   REGL    BSP   4                                        I  5  2927  U %U4 B            99
795  7 71           LCA   AREASV,186                               I  7  2932  L 331 186          99
796  7 72           B     ALTBY                                    I  4  2939  B U97              99
797  7 73   PACKX   SBR   PACKS&3                                 I  4  2943  H ?04              99
798  7 74           SW    BALTR                                    I  4  2947  , I03              99
799  7 75           CW    SCNSW                                    I  4  2951  ) W18             100
800  7 76           S     INDEX3&1                                 I  4  2955  S 100             100
801  7 77           B     SCANX                                    I  4  2959  B N55             100
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
802  7 78           ZA    MAINX&18&X3,HLDA1#4                        I  7  2963  ? 0A9 I02          100
803  7 79           BW    PARKS,SCNSW                                I  8  2970  V R93 W18 1        100
804  7 80           B     SCANX                                      I  4  2978  B N55             100
805  7 81           ZA    MAINX&18&X3,HLDB                           I  7  2982  ? 0A9 I07          100
806  7 82           CW    BALTR#1                                    I  4  2989  ) I03             101
807  7 83   PARKS   CS    LMAINX                                     I  4  2993  / 086             101
808  7 84           SW    1                                          I  4  2997  , 001             101
809  7 85   PACKS   B     0                                          I  4  3001  B 000             101
810  7 86   *
811  7 87   *               ALTER  NUMBER  COMPARES  EQUAL
812  7 88   *
813  7 89   CHECK   BW    WRTAL,BALTR                                I  8  3005  V ?37 I03 1        101
814  7 90   DBLAL   C     OUTPT&83,HLDB#4                            I  7  3013  C I95 I07          101
815  7 91           BE    WRTAL                                      I  5  3020  B ?37 S           101
816  7 92           B     CTAPE                                      I  4  3025  B S22             102
817  7 93           NOP   TDF4A                                     I  4  3029  N A35             102
818  7 94           B     DBLAL                                      I  4  3033  B ?13             102
819  7 95   WRTAL   BLC   TUNEL                                     I  5  3037  B Q88 A           102
820  7 96           R                                                I  1  3042  1                 102
821  7 97           C     MAINX&17,@ALT@                             I  7  3043  C 018 H92          102
822  7 98           BE    HOMAL                                      I  5  3050  B Q12 S           102
823  7 99           C     MAINX&17,@JOB@                             I  7  3055  C 018 H95          103
824  8 00   ALTS3   BU    ALTS4E                                     I  5  3062  B ?75 /           103
825  8 01           B     NOPJB                                      I  4  3067  B 205             103
826  8 02           B     RSOLV                                      I  4  3071  B 175             103
827  8 03   ALTS4E  C     MAINX&17,@CTL@                             I  7  3075  C 018 H98          103
828  8 04   ALTS4   BE    CRDCL                                      I  5  3082  B 138 S           103
829  8 05           BW    TUFF,BALTR                                 I  8  3087  V A03 I03 1        104
830  8 06           CW    READS                                      I  4  3095  ) I10             104
831  8 07           B     ALTIO                                      I  4  3099  B Q83             104
832  8 08   TUFF    B     SAVXX                                      I  4  3103  B C19             104
833  8 09           CW    XCARDS                                     I  4  3107  ) I09             104
834  8 10           SBR   RSOLV&7,SOLVED                            I  7  3111  H 182 Q72          104
835  8 101          SBR   CHUCK&3                                   I  4  3118  H 234             104
836  8 102          MCW   @N@,NOSOL                                 I  7  3122  M I08 131         105
837  8 11           B     PROPRE                                     I  4  3129  B Q40             105
838  8 12   *
839  8 13   *               TDF  FOR  READING  86  CHARACTER  RECORDS
840  8 14   *
841  8 15   TDF4A   DCW   TUNEL                                     I  3  3135  Q88               105
842  8 16           RT    4,OUTPT                                    I  8  3136  M %U4 I12 R       105
843  8 17   *
844  8 18   *               REGENERATION  OF  DIOCS  AND  DTF
845  8 19   *
846  8 20   REGEN   BW    ORDN,XCARDS                                I  8  3144  V A85 I09 1        105
847  8 21           SBR   NEXREC&3,SPCAS                           I  7  3152  H 684 A74         105
848  8 22           SBR   ALDIO-1,SOFT                             I  7  3159  H B02 B68         106
849  8 23           CW    READS                                      I  4  3166  ) I10             106
850  8 24           B     FIND                                       I  4  3170  B 642             106
851  8 25   SPCAS   MCW   AREASV,LMAINX                             I  7  3174  M 331 086         106
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
852  8 26           SW    XCARDS#1                                   I   4  3181  , I09             106
853  8 27   ORDN    SBR   NEXREC&3,ALDIO                            I   7  3185  H 684 B03          106
854  8 28           SBR   DIFREC&3,ALDTF                           I   7  3192  H M09 C08          107
855  8 29           B     FIND                                       I   4  3199  B 642             107
856  8 30   ALDIO   CS    LMAINX                                     I   4  3203  / 086             107
857  8 31           BW    RDT4A,READS                                I   8  3207  V B41 I10 1        107
858  8 32           BLC   LUNET                                     I   5  3215  B C34 A           107
859  8 33           R                                                I   1  3220  1                 107
860  8 34           C     MAINX&17,@ALT@                             I   7  3221  C 018 H92          107
861  8 35           BU    SOFT                                       I   5  3228  B B68 /           108
862  8 36           B     SAVXX                                      I   4  3233  B C19             108
863  8 37           B     PACKX                                      I   4  3237  B R43             108
864  8 38   RDT4A   B     BYPSS                                      I   4  3241  B C49             108
865  8 39           C     OUTPT&83,HLDA1                             I   7  3245  C I95 I02         108
866  8 40   FINAL   BE    DBLCK                                      I   5  3252  B B72 S           108
867  8 41           SW    READS                                      I   4  3257  , I10             108
868  8 42   FINAL2  MCW   OUTPT&85,LMAINX                           I   7  3261  M I97 086         109
869  8 43   SOFT    B     GAMMA                                      I   4  3268  B 685             109
870  8 44   DBLCK   CW    READS#1                                    I   4  3272  ) I10             109
871  8 45           BW    FINAL2,BALTR                               I   8  3276  V B61 I03 1       109
872  8 46   TRPCK   C     OUTPT&83,HLDB                              I   7  3284  C I95 I07         109
873  8 47           BE    ALDIO                                      I   5  3291  B B03 S           109
874  8 48           B     CTAPE                                      I   4  3296  B S22             109
875  8 49           NOP   TDF4A                                     I   4  3300  N A35             110
876  8 50           B     TRPCK                                      I   4  3304  B B84             110
877  8 51   *
878  8 52   *               DTF  ON  ALTER  MODE
879  8 53   *
880  8 54   ALDTF   SBR   SOFT&3,DELTA                              I   7  3308  H B71 M10          110
881  8 55           B     ALDIO                                      I   4  3315  B B03             110
882  8 56   SAVXX   SBR   SAVXT&3                                   I   4  3319  H C33             110
883  8 57           MCW   LMAINX,AREASV                            I   7  3323  M 086 331         110
884  8 58   SAVXT   B     0                                          I   4  3330  B 000             110
885  8 59   LUNET   SW    READS                                      I   4  3334  , I10             111
886  8 60           MCW   @N@,FINAL                                 I   7  3338  M I08 B52         111
887  8 61           B     RDT4A                                      I   4  3345  B B41             111
888  8 62   BYPSS   SBR   BYPSX&3                                   I   4  3349  H C80             111
889  8 63           B     CTAPE                                      I   4  3353  B S22             111
890  8 64           NOP   TDF4A                                     I   4  3357  N A35             111
891  8 65           BCE   BYPSS&4,OUTPT&74,Y                         I   8  3361  B C53 I86 Y       111
892  8 66           BCE   BYPSS&4,OUTPT&74,Z                         I   8  3369  B C53 I86 Z       112
893  8 67   BYPSX   B     0                                          I   4  3377  B 000             112
894  8 68   *
895  8 69   *               DTF TABLE OF OPERANDS
896  8 70   *
897  8 71           DCW   @@@                FILETYP                 I   1  3381                    112
898  8 72           DCW   @001@                                       I   3  3384                    112
899  8 73           DCW   @INP@                   INPUT              I   3  3387                    112
900  8 74           DCW   @002@                                       I   3  3390                    112
901  8 75           DCW   @OUT@                   OUTPUT             I   3  3393                    112
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
902  8 76           DCW   @003@                                      I  3  3396                    113
903  8 77           DCW   @TAP@                  TAPE                I  3  3399                    113
904  8 78           DCW   @004@                                      I  3  3402                    113
905  8 79           DCW   @REA@                  READER              I  3  3405                    113
906  8 80           DCW   @005@                                      I  3  3408                    113
907  8 81           DCW   @PUN@                  PUNCH               I  3  3411                    113
908  8 82           DCW   @008@                                      I  3  3414                    113
909  8 83           DCW   @CHE@                                      I  3  3417                    114
910  8 84           DCW   @006@                                      I  3  3420                    114
911  8 85  FILXZ     DCW   @PRI@                  PRINTER             I  3  3423                    114
912  8 86           DCW   @@@              MODEPAR                    I  1  3424                    114
913  8 87           DCW   @007@                                      I  3  3427                    114
914  8 88  MODXZ     DCW   @LOA@                                      I  3  3430                    114
915  8 89           DCW   @@@              RECFORM                    I  1  3431                    114
916  8 90           DCW   @012@                                      I  3  3434                    115
917  8 91           DCW   @BLO@                  BLOCKED             I  3  3437                    115
918  8 92           DCW   @013@                                      I  3  3440                    115
919  8 93           DCW   @UNB@                  UNBLOCKED           I  3  3443                    115
920  8 94           DCW   @014@                                      I  3  3446                    115
921  8 95           DCW   @FIX@                       FIXED          I  3  3449                    115
922  8 96           DCW   @015@                                      I  3  3452                    115
923  8 97  RECXZ     DCW   @VAR@                  VARIABLE            I  3  3455                    116
924  8 98           DCW   @@@              TYPELABEL                  I  1  3456                    116
925  8 99           DCW   @081@                                      I  3  3459                    116
926  9 00           DCW   @STA@                  STANDARD            I  3  3462                    116
927  9 01           DCW   @082@                                      I  3  3465                    116
928  9 02           DCW   @NON@                  NONSTANDARD         I  3  3468                    116
929  9 03           DCW   @083@                                      I  3  3471                    116
930  9 04  TYPXZ     DCW   @TM @                  TM                  I  3  3474                    117
931  9 05           DCW   @@@              CHECKLABEL                 I  1  3475                    117
932  9 06           DCW   @084@                                      I  3  3478                    117
933  9 07           DCW   @ALL@                  ALL                 I  3  3481                    117
934  9 08           DCW   @085@                                      I  3  3484                    117
935  9 09  CHEXZ     DCW   @IDE@                  IDENT               I  3  3487                    117
936  9 10           DCW   @@@              REWIND                     I  1  3488                    117
937  9 11           DCW   @199@                                      I  3  3491                    118
938  9 12           DCW   @UNL@                  UNLOAD              I  3  3494                    118
939  9 13           DCW   @200@                                      I  3  3497                    118
940  9 14  REWXZ     DCW   @NOR@                  NOREWD              I  3  3500                    118
941  9 15           DCW   @@@                                        I  1  3501                    118
942  9 16           DCW   @201@                                      I  3  3504                    118
943  9 17           DCW   @9  @                                      I  3  3507                    118
944  9 18           DCW   @202@                                      I  3  3510                    119
945  9 19  OVEXZ     DCW   @12 @                                      I  3  3513                    119
946  9 20           DCW   @@@                                        I  1  3514                    119
947  9 21           DCW   @076@                                      I  3  3517                    119
948  9 22  TOTXZ     DCW   @REC@                                      I  3  3520                    119
949  9 23  *
950  9 24  *              DIOCS  OPERAND  TABLE
951  9 25  *
```

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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
 952  9 26          DCW   @@@                                      I  1  3521                    119
 953  9 27          DCW   -MINUS3&4                                I  3  3524  I9C               119
 954  9 28          DCW   @OUT@                                    I  3  3527                    120
 955  9 29          DCW   -MINUS2&4                                I  3  3530  I9D               120
 956  9 30  TAPTB   DCW   @INP@                                    I  3  3533                    120
 957  9 31          DCW   @@@                                      I  1  3534                    120
 958  9 32          DCW   @045@                                    I  3  3537                    120
 959  9 33          DCW   @REL@                                    I  3  3540                    120
 960  9 34          DCW   @046@                                    I  3  3543                    120
 961  9 35          DCW   @STO@                                    I  3  3546                    121
 962  9 36          DCW   @006@                                    I  3  3549                    121
 963  9 37  FEATB   DCW   @OVE@                    OVERLAP        I  3  3552                    121
 964  9 38          DCW   @@@                                      I  1  3553                    121
 965  9 39          DCW   @007@                                    I  3  3556                    121
 966  9 40          DCW   @TAP@                    TAPE           I  3  3559                    121
 967  9 41          DCW   @008@                                    I  3  3562                    121
 968  9 42          DCW   @REA@                    READER         I  3  3565                    122
 969  9 43          DCW   @009@                                    I  3  3568                    122
 970  9 44          DCW   @PUN@                    PUNCH          I  3  3571                    122
 971  9 45          DCW   @010@                                    I  3  3574                    122
 972  9 46  IODTB   DCW   @PRI@                    PRINTER        I  3  3577                    122
 973  9 47          DCW   @@@                                      I  1  3578                    122
 974  9 48          DCW   @011@                                    I  3  3581                    122
 975  9 49          DCW   @STA@                    STANDARD       I  3  3584                    123
 976  9 50          DCW   @012@                                    I  3  3587                    123
 977  9 51          DCW   @NON@                    NONSTANDARD    I  3  3590                    123
 978  9 52          DCW   @013@                                    I  3  3593                    123
 979  9 53          DCW   @MIX@                    MIXED          I  3  3596                    123
 980  9 54          DCW   @014@                                    I  3  3599                    123
 981  9 55          DCW   @CHE@                    CHECK          I  3  3602                    123
 982  9 56          DCW   @015@                                    I  3  3605                    124
 983  9 57          DCW   @IDE@                    IDENT          I  3  3608                    124
 984  9 58          DCW   @026@                                    I  3  3611                    124
 985  9 59          DCW   @RDL@                                    I  3  3614                    124
 986  9 60          DCW   @016@                                    I  3  3617                    124
 987  9 61  LABTB   DCW   @TM @                    TM             I  3  3620                    124
 988  9 62          DCW   @@@                                      I  1  3621                    124
 989  9 63          DCW   @018@                                    I  3  3624                    125
 990  9 64          DCW   @1  @                    EXIT 1         I  3  3627                    125
 991  9 65          DCW   @019@                                    I  3  3630                    125
 992  9 66          DCW   @2  @                    EXIT 2         I  3  3633                    125
 993  9 67          DCW   @020@                                    I  3  3636                    125
 994  9 68          DCW   @3  @                    EXIT 3         I  3  3639                    125
 995  9 69          DCW   @021@                                    I  3  3642                    125
 996  9 70          DCW   @4  @                    EXIT 4         I  3  3645                    126
 997  9 71          DCW   @022@                                    I  3  3648                    126
 998  9 72          DCW   @5  @                    EXIT 5         I  3  3651                    126
 999  9 73          DCW   @023@                                    I  3  3654                    126
1000  9 74          DCW   @6  @                    EXIT 6         I  3  3657                    126
1001  9 75          DCW   @024@                                    I  3  3660                    126
```

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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1002  9 76           DCW   @7  @                    EXIT 7          I   3  3663                    126
1003  9 77           DCW   @025@                                    I   3  3666                    127
1004  9 78   EXITB   DCW   @8  @                    EXIT 8          I   3  3669                    127
1005  9 79           DCW   @@@                                      I   1  3670                    127
1006  9 80           DCW   @027@                                    I   3  3673                    127
1007  9 81           DCW   @729@                    729             I   3  3676                    127
1008  9 82           DCW   @028@                                    I   3  3679                    127
1009  9 83   DRITB   DCW   @733@                    7330            I   3  3682                    127
1010  9 84           DCW   @@@                                      I   1  3683                    128
1011  9 85           DCW   @029@                                    I   3  3686                    128
1012  9 86           DCW   @NOR@                    NO RWED         I   3  3689                    128
1013  9 87           DCW   @030@                                    I   3  3692                    128
1014  9 88   RWDTB   DCW   @UNL@                    UNLOAD          I   3  3695                    128
1015  9 89           DCW   @@@                                      I   1  3696                    128
1016  9 90           DCW   @037@                                    I   3  3699                    128
1017  9 91           DCW   @REC@                    RECORD          I   3  3702                    129
1018  9 92           DCW   @038@                                    I   3  3705                    129
1019  9 93   COUTB   DCW   @HAS@                    HASH            I   3  3708                    129
1020  9 94           DCW   @@@                                      I   1  3709                    129
1021  9 95           DCW   @034@                                    I   3  3712                    129
1022  9 96           DCW   @CLE@                                    I   3  3715                    129
1023  9 97           DCW   @033@                                    I   3  3718                    129
1024  9 98           DCW   @PRO@                                    I   3  3721                    130
1025  9 99           DCW   @032@                                    I   3  3724                    130
1026 10 00   REATB   DCW   @SCA@                                    I   3  3727                    130
1027 10 01   *
1028 10 02   *               DTF  TABLE  OF  LABELS
1029 10 03   *
1030 10 04           DCW   @@@                                      I   1  3728                    130
1031 10 05           DCW   @OVE@              OVERFLOW              I   3  3731                    130
1032 10 06           DCW   @FOR@              FORMSCNTL             I   3  3734                    130
1033 10 07           DCW   @COB@              COBOL                 I   3  3737                    130
1034 10 08           DCW   @VAR@              VARBUILD              I   3  3740                    131
1035 10 09           DCW   @CHA@              CHANDRIVE             I   3  3743                    131
1036 10 10           DCW   @FIL@              FILETYPE              I   3  3746                    131
1037 10 11           DCW   @MOD@              MODEPAR               I   3  3749                    131
1038 10 12           DCW   @CAR@              CARDROC               I   3  3752                    131
1039 10 13           DCW   @ALT@              ALTTAPE               I   3  3755                    131
1040 10 14           DCW   @REC@              RECFORM               I   3  3758                    131
1041 10 15           DCW   @SIZ@              SIZEREC               I   3  3761                    132
1042 10 16           DCW   @PAD@              PADDING               I   3  3764                    132
1043 10 17           DCW   @BLO@              BLOCKSIZE             I   3  3767                    132
1044 10 18           DCW   @IOA@              IOAREAS               I   3  3770                    132
1045 10 19           DCW   @WOR@              WORKAREA              I   3  3773                    132
1046 10 20           DCW   @IND@              INDEXREC              I   3  3776                    132
1047 10 21           DCW   @EOF@              EOFADDR               I   3  3779                    132
1048 10 22           DCW   @WLR@              WLRADDR               I   3  3782                    133
1049 10 23           DCW   @TOT@              TOTALS                I   3  3785                    133
1050 10 24           DCW   @TYP@              TYPELABEL             I   3  3788                    133
1051 10 25           DCW   @CHE@              CHECKLABEL            I   3  3791                    133
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1052 10 26           DCW   @HEA@              HEADER                  I   3  3794                    133
1053 10 27           DCW   @SER@              SERIALNUM               I   3  3797                    133
1054 10 28           DCW   @REE@              REELSEQ                 I   3  3800                    133
1055 10 29   DTFLAB  DCW   @REW@              REWIND                  I   3  3803                    134
1056 10 30   *
1057 10 31   *
1058 10 32   *               LABEL TABLE
1059 10 33   *
1060 10 34           DCW   @@@                                        I   1  3804                    134
1061 10 35           DCW   @TAP@              TAPEUSE                 I   3  3807                    134
1062 10 36           DCW   @CHE@              CHECKPOINT              I   3  3810                    134
1063 10 37           DCW   @DIO@              DIOCSORG                I   3  3813                    134
1064 10 38           DCW   @FEA@              FEATURES                I   3  3816                    134
1065 10 39           DCW   @IOD@              IODEVICES               I   3  3819                    134
1066 10 40           DCW   @LAB@              LABELDEF                I   3  3822                    135
1067 10 41           DCW   @ALT@              ALTTAPE                 I   3  3825                    135
1068 10 42           DCW   @EXI@              EXITS                   I   3  3828                    135
1069 10 43           DCW   @VAR@              VARBUILD                I   3  3831                    135
1070 10 44           DCW   @COU@              COUNTS                  I   3  3834                    135
1071 10 45           DCW   @DRI@              DRIVETYPE               I   3  3837                    135
1072 10 46           DCW   @RWD@              RWDOPTION               I   3  3840                    135
1073 10 47           DCW   @REA@              READERROR               I   3  3843                    136
1074 10 48   LBLTBL  DCW   @INP@              INPFXNO                 I   3  3846                    136
1075 10 49           LTORG *                                          I          3847
                     DCW   @EX@                                       I   2  3848          LIT       136
                           @7@                                        I   1  3849          LIT       136
                           @1 8@                                      I   3  3852          LIT       136
                           @$@                                        I   1  3853          LIT       136
                           @ @                                        I   1  3854          LIT       136
                           @*@                                        I   1  3855          LIT       137
                           @5@                                        I   1  3856          LIT       137
         643               @55555@                                    I   5  3861          LIT       137
                           @|@                                        I   1  3862          LIT       137
         652  SAVXL1       #03                                        I   3  3865          AREA      137
                           @, @                                       I   2  3867          LIT       137
                           @  @                                       I   2  3869          LIT       137
                           @1@                                        I   1  3870          LIT       138
                           @6@                                        I   1  3871          LIT       138
         685               @     @                                    I   5  3876          LIT       138
                           @DTF@                                      I   3  3879          LIT       138
         696               @33333@                                    I   5  3884          LIT       138
                           @52@                                       I   2  3886          LIT       138
         731  SAVX2        #03                                        I   3  3889          AREA      138
                           @ALT@                                      I   3  3892          LIT       139
                           @JOB@                                      I   3  3895          LIT       139
                           @CTL@                                      I   3  3898          LIT       139
         802  HLDA1        #04                                        I   4  3902          AREA      139
         806  BALTR        #01                                        I   1  3903          AREA      139
         814  HLDB         #04                                        I   4  3907          AREA      139
                           @N@                                        I   1  3908          LIT       139
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
        852  XCARDS       #01                                        I   1  3909              AREA   140
        870  READS        #01                                        I   1  3910              AREA   140
1076 10 50   *
1077 10 51   *              OUTPUT  AREA
1078 10 52   *
1079 10 53          ORG    3912                                       I            3912
1080 10 54   OUTPT  DA     1X86,G                                     I       3912 3997              140
                    DCW    @}@                                        I   1  3998              GMARK  141
1081 10 55   LOPUT  EQU    *                                          I       3998
1082 10 56          EX                                                I            B 000             142
```

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 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

1083 10 57          JOB   1401 AUTOCODER-PASS 2-COPY DTF TABLE      -VERSION 3
1084 10 58          SFX   I
1085 10 59          ORG   341                                               I            0341
1086 10 60          DCW   @,@                                               I   1  0341                    145
1087 10 61          DCW   @;@               EXITS   YES                     I   1  0342                    145
1088 10 62          DCW   @;@               COBOL   YES                     I   1  0343                    145
1089 10 63          DCW   #6                                                I   6  0349                    145
1090 10 64          DCW   @;@          1    INPUT         1     FILETYPE     I   1  0350                    145
1091 10 65          DCW   @;@          2    OUTPUT        2                  I   1  0351                    145
1092 10 66          DCW   @;@          3    TAPE          3                  I   1  0352                    145
1093 10 67          DCW   @;@          4    READER        4                  I   1  0353                    146
1094 10 68          DCW   @;@          5    PUNCH         5                  I   1  0354                    146
1095 10 69          DCW   @;@          6    PRINTER       6                  I   1  0355                    146
1096 10 70          DCW   @;@          7    LOAD          7     MODEPAR      I   1  0356                    146
1097 10 71          DCW   @;@          8    CHECKPOINT     8    FEATURES     I   1  0357                    146
1098 10 72          DCW   @;@          9    NUMBER        9     CHANDRIVE    I   1  0358                    146
1099 10 73          DCW   @;@         10    NUMBER       10     CARDPOC      I   1  0359                    146
1100 10 74          DCW   @;@         11    NUMBER       11     ALTTAPE      I   1  0360                    147
1101 10 75          DCW   @;@         12    BLOCKED      12     RECFORM      I   1  0361                    147
1102 10 76          DCW   @;@         13    UNBLOCKED    13                  I   1  0362                    147
1103 10 77          DCW   @;@         14    MIXED        14                  I   1  0363                    147
1104 10 78          DCW   @;@         15    VARIABLE     15                  I   1  0364                    147
1105 10 79          DCW   @   ;@      16-19 NUMBER       16     SIZEREC      I   4  0368                    147
1106 10 80          DCW   @;@         20    NUMBER       17     PADDING      I   1  0369                    147
1107 10 81          DCW   @   ;@      21-24 NUMBER       18     BLOCKSIZE    I   4  0373                    148
1108 10 82          DCW   @         ;@   25-34    LABELS  19     IOAREAS      I  10  0383                    148
1109 10 83          DCW   @         ;@   35-44            20                  I  10  0393                    148
1110 10 84          DCW   @         ;@  45-54  LABEL      21     WORKAREA     I  10  0403                    148
1111 10 85          DCW   @;@         55    NUMBER       22     INDEXREG     I   1  0404                    148
1112 10 86          DCW   @         ;@  56-65  LABEL      23     EORADDR      I  10  0414                    149
1113 10 87          DCW   @         ;@   66-75  LABEL     24     WLRADDR      I  10  0424                    149
1114 10 88          DCW   @;@         76    RECORD       25     TOTALS       I   1  0425                    149
1115 10 89          DCW   @   ;@      77-80 HASH         26                  I   4  0429                    149
1116 10 90          DCW   @;@         81    STANDARD     27     TYPELABEL    I   1  0430                    149
1117 10 91          DCW   @;@         82    NONSTANDARD  28                  I   1  0431                    149
1118 10 92          DCW   @;@         83    TM           29                  I   1  0432                    149
1119 10 93          DCW   @;@         84    ALL          30     CHECKLABEL   I   1  0433                    150
1120 10 94          DCW   @;@         85    IDENT        31                  I   1  0434                    150
1121 10 95          DCW   @  ;@                                             I   3  0437                    150
1122 10 96          DCW   @    ;@                                           I   5  0442                    150
1123 10 97          DCW   @         ;@                                      I  10  0452                    150
1124 10 98          DCW   @    ;@     104-108 NUMBER     35     SERIALNUM    I   5  0457                    150
1125 10 99          DCW   @         ;@  109-118           39     EX1ADDR      I  10  0467                    150
1126 11 00          DCW   @         ;@  119-128           40     EX2ADDR      I  10  0477                    151
1127 11 01          DCW   @         ;@  129-138           41     EX3ADDR      I  10  0487                    151
1128 11 02          DCW   @         ;@  139-148           42     EX4ADDR      I  10  0497                    151
1129 11 03          DCW   @         ;@  149-158           43     EX5ADDR      I  10  0507                    152
1130 11 04          DCW   @         ;@  159-168           44     EX6ADDR      I  10  0517                    152
1131 11 05          DCW   @         ;@  169-178           45     EX7ADDR      I  10  0527                    152
1132 11 06          DCW   @         ;@  179-188           46     EX8ADDR      I  10  0537                    153
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 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

1133 11 07          DCW   @         ;@  189-198          47     VARBUILD     I  10  0547                    153
1134 11 08          DCW   @;@           199  UNLOAD      37     REWIND       I   1  0548                    153
1135 11 09          DCW   @;@           200  NOREWD      38                  I   1  0549                    153
1136 11 10          DCW   @;@            9      201              OVERFLOW     I   1  0550                    153
1137 11 11          DCW   @;@           12      202                           I   1  0551                    153
1138 11 12          DCW   @  ;@         203-205  NUMBER          REELSEQ     I   3  0554                    153
1139 11 13          DCW   @;@               206                  FORMCNTL     I   1  0555                    154
1140 11 14          DCW   #9                                                 I   9  0564                    154
1141 11 15          DCW   @;@            216     ADDRESS         OVERFLOW     I   1  0565                    154
1142 11 16          DCW   @ @                                                I   1  0566                    154
1143 11 17          DCW   @ @                                                I   1  0567                    154
1144 11 18   DTFGM   DCW   @}@                                               I   1  0568                    154
1145 11 19          EX                                                       I          B 000              155
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 SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

1146 11 20           JOB   1401 AUTOCODER-PASS 2-ALTER OVERLAY -VERSION 3
1147 11 21           SFX   I
1148 11 22           ORG   101                                          I            0101
1149 11 23    *
1150 11 24    *
1151 11 25    *               CTL  CARD  ON  TAPE  4
1152 11 26    *
1153 11 27    PUNCH  CW     GMOVL2                                      I   4  0101  ) 332              158
1154 11 28           BSP    1                                          I   5  0105  U %U1 B            158
1155 11 29           BSP    1                                          I   5  0110  U %U1 B            158
1156 11 30           B      ALTER                                      I   4  0115  B P63              158
1157 11 31    OUTCL  MCW    OUTPT&85,LMAINX                            I   7  0119  M I97 086          158
1158 11 32           BSS    PREPS2,C                                   I   5  0126  B 662 C            158
1159 11 33    NOSOL  SBR    RSOLV&7,NOALTB                             I   7  0131  H 182 Q20          158
1160 11 34    *
1161 11 35    *               CTL  CARD  FROM  CARDS
1162 11 36    *
1163 11 37    CRDCL  BCE    LEAVE,MAINX&23,1                           I   8  0138  B 167 024 1        159
1164 11 38           MN     MAINX&21,*&8                               I   7  0146  D 022 160          159
1165 11 39           BCE    LEAVE,@456@,                               I   8  0153  B 167 237          159
1166 11 40           CHAIN  2                                                                  MACRO
1167                 BCE                                               I   1  0161  B           GEN    159
1168                 BCE                                               I   1  0162  B           GEN    159
1169 11 41           B      LETBE                                      I   4  0163  B 171              159
1170 11 42    LEAVE  S      SPECL                                      I   4  0167  S 337              159
1171 11 43    LETBE  B      NOPCL                                      I   4  0171  B 183              160
1172 11 44    RSOLV  B      WRTREC                                     I   4  0175  B 721              160
1173 11 45           B      WRTAL                                      I   4  0179  B ?37              160
1174 11 46    *
1175 11 47    NOPCL  SBR    NPCLX&3                                    I   4  0183  H 204              160
1176 11 48           MCW    @N@,ALTS2                                  I   7  0187  M 238 Q67          160
1177 11 49           MCW    @N@,ALTS4                                  I   7  0194  M 238 ?82          160
1178 11 50    NPCLX  B      0                                          I   4  0201  B 000              160
1179 11 51    NOPJB  SBR    NPJBX&3                                    I   4  0205  H 219              161
1180 11 52           SW     ALTS1&4,ALTS3&4                            I   7  0209  , Q51 ?66          161
1181 11 53    NPJBX  B      0                                          I   4  0216  B 000              161
1182 11 54    NOTER  MCW    OUTPT&85,LMAINX                            I   7  0220  M I97 086          161
1183 11 55           B      WRTREC                                     I   4  0227  B 721              161
1184 11 56    CHUCK  B      NOALTB                                     I   4  0231  B Q20              161
1185 11 57           LTORG  *                                          I            0235
                     DCW    @456@                                      I   3  0237           LIT    161
                            @N@                                        I   1  0238           LIT    162
1186 11 58           ORG    246                                        I            0246
1187 11 59           DA     1X86                                       I       0246  0331               162
1188 11 60    AREASV EQU    *                                          I       0331
1189 11 61    GMOVL2 DCW    @}@                                        I   1  0332                     163
1190 11 62           EX                                                I            B 000              164
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1191 11 63           JOB   1401 AUTOCODER - PASS 2 - END OVERLAY - VERSION 3
1192 11 64           SFX   I
1193 11 65           ORG   341                                       I          0341
1194 11 66  OVLY3    MN    @5@,TDF6&4                                I   7  0341  D 432 768          167
1195 11 73           SBR   LONG&3,@N@                               I   7  0348  H J60 433          167
1196 11 74           LCA   186,LMAINX                               I   7  0355  L 186 086          167
1197 11 75           B     NEWWRT                                    I   4  0362  B J35              167
1198 11 76           CW    OUTPT&80                                  I   4  0366  ) I92              167
1199 11 77           SW    GMOVL4                                    I   4  0370  , 606              167
1200 11 78           MCW   GMWMRK,GMOVL4                           I   7  0374  M 773 606          168
1201 11 79           B     CTAPE                                     I   4  0381  B S22              168
1202 11 80           NOP   TDF9                                     I   4  0385  N 412              168
1203 11 81           CW    GMOVL4                                    I   4  0389  ) 606              168
1204 11 82           RWD   5                                         I   5  0393  U %U5 R            168
1205 11 83           B     CTAPE                                     I   4  0398  B S22              168
1206 11 84           NOP   TDFSYS                                   I   4  0402  N 423              168
1207 11 85           B     1900                                      I   4  0406  B Z00              169
1208 11 86  TDF9     DCW   #3                                        I   3  0412                     169
1209 11 87           WTW   5,OVLY4                                  I   8  0413  L %U5 434 W        169
1210 11 88  TDFSYS   DCW   #3                                        I   3  0423                     169
1211 11 89           RTW   1,1650                                    I   8  0424  L %U1 W50 R        169
1212 11 92  *
1213 11 93           LTORG *                                         I          0432
                     DCW   @5@                                       I   1  0432            LIT   169
                           @N@                                       I   1  0433            LIT   169
1214 11 94  OVLY4    EQU   *&1                                       I      0434
1215 11 95           SFX   X
1216 11 96  *    END OF JOB
1217 11 97  *
1218 11 98           C     CALLTX,BLANKS-2                           X   7  0434  C !73 W14          170
1219 11 99           BE    STENDX                                    X   5  0441  B 450 S            170
1220 12 00           B     SUREXX                                    X   4  0446  B T08              170
1221 12 01  STENDX   B     SBROTX                                    X   4  0450  B O33              170
1222 12 02           RWD   5                                         X   5  0454  U %U5 R            170
1223 12 03           BSP   1                                         X   5  0459  U %U1 B            170
1224 12 04           BSP   1                                         X   5  0464  U %U1 B            170
1225 12 05           WTM   6                                         X   5  0469  U %U6 M            171
1226 12 06           RWD   6                                         X   5  0474  U %U6 R            171
1227 12 07           MCW   SYMNMX,MAINX&2                          X   7  0479  M W01 003          171
1228 12 08           LCA   LOPUT&1,MAINX&35                        X   7  0486  L I98 036          171
1229 12 09           WT    5,MAINX                                   X   8  0493  M %U5 001 W        171
1230 12 10           WTM   5                                         X   5  0501  U %U5 M            171
1231 12 11           RWD   4                                         X   5  0506  U %U4 R            172
1232 12 12           CW    LIPUT&1,MAINX&35                          X   7  0511  ) 187 036          172
1233 12 13           CW    100                                       X   4  0518  ) 100              172
1234 12 14  BYPASX   RT    1,3997                                    X   8  0522  M %U1 I97 R        172
1235 12 15           SW    LOPUT&1                                   X   4  0530  , I98              172
1236 12 16           BEF   CBSP2X                                    X   5  0534  B 543 K            172
1237 12 17           B     BYPASX                                    X   4  0539  B 522              172
1238 12 18  CBSP2X   RT    1,3997                                    X   8  0543  M %U1 I97 R        173
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

1239 12 19           SW    LOPUT&1                                  X   4  0551  , I98             173
1240 12 20           S     &1,CBSP1X                                X   7  0555  S 605 604         173
1241 12 21           BM    CBSP3X,CBSP1X                            X   8  0562  V 574 604 K       173
1242 12 22           B     CBSP2X                                   X   4  0570  B 543             173
1243 12 23    *
1244 12 24    *  LOAD PASS THREE
1245 12 25    *
1246 12 26    CBSP3X CS    PARTB                                    X   4  0574  / 466             173
1247 12 27           CS                                            X   1  0578  /                 173
1248 12 28           CS                                            X   1  0579  /                 174
1249 12 29           B     CTAPE                                    X   4  0580  B W50             174
1250 12 30           NOP   TDFEOJ                                   X   4  0584  N 594             174
1251 12 31           B     2465                                     X   4  0588  B M65             174
1252 12 32    TDFEOJ DCW   &CCHALT                                  X   3  0594  Y34               174
1253 12 33           RTW   1,2210                                   X   8  0595  L %U1 K10 R       174
1254 12 34    CBSP1X DCW   @11@                                     X   2  0604                    174
1255 12 35    *
1256 12 36           LTORG *                                       X          0605
                     DCW   &1                                      X   1  0605            LIT    175
1257 12 37    GMOVL4 DCW   @}@                                     X   1  0606                    175
1258 12 38           EX                                            X          B 000             176
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1259 12 39          JOB   1401 AUTOCODER - PASS 2 - ALTER ASSEMBLY - VERSION 3
1260 12 40   *
1261 12 41   *   AREA DEFINITIONS
1262 12 42   *
1263 12 43          SFX   B
1264 12 44          ORG   1                                         B            0001
1265 12 45          DA    1X86     MAIN                           B      0001  0086              179              ADDR
1266 12 46          EQU   *        LMAIN                          B      0086
1267 12 47          ORG   87                                      B            0087
1268 12 48          DCW   000      INDEX1                         B   3  0089                    179
1269 12 49          DC    00                                      B   2  0091                    179
1270 12 50          DCW   000      INDEX2                         B   3  0094                    179
1271 12 51          DC    00                                      B   2  0096                    179
1272 12 52          DCW   000      INDEX3                         B   3  0099                    179
1273 12 53          DC    00                                      B   2  0101                    179
1274 12 54          ORG   100                                     B            0100
1275 12 55          DC    @}@                                     B   1  0100                    180
1276 12 56          DA    1X86     INPUT                          B      0101  0186              180
1277 12 57          DC    @}@       LIPUT&1                       B   1  0187                    181
1278 12 58          DC    0        ZEROX                          B   1  0188                    181
1279 12 59          DC    0        CARDSX                         B   1  0189                    181
1280 12 60          DCW   @***@    HLDSBX                         B   3  0192                    181
1281 12 61   *
1282 12 62   *         INITIALIZATION
1283 12 63   *
1284 12 64          ORG   101                                     B            0101
1285 12 65   VOICE  CS    CALLTX                                  B   4  0101  / !73             182
1286 12 66          CS                                            B   1  0105  /                 182
1287 12 67   IOCALT CS    LMAINX                                  B   4  0106  / 086             182
1288 12 68          B     CTAPEX                                  B   4  0110  B W50             182
1289 12 69          NOP   TDFIO5                                  B   4  0114  N 132             182
1290 12 70          BCE   IOCEOF,MAINXX&73,N                     B   8  0118  B 141 074 N       182
1291 12 71          B     YOURS                                   B   4  0126  B 541             182
1292 12 72   TDFIO5 DCW   &IOCEOF                                 B   3  0132  141               183
1293 12 73          RT    5,MAINXX                                B   8  0133  M %U5 001 R       183
1294 12 74   IOCEOF MCW   @1@,HAPPYX&4                           B   7  0141  M 172 N74         183
1295 12 75          MCW   @/086@                                  B   4  0148  M 176             183
1296 12 76          B     OKAY                                    B   4  0152  B 467             183
1297 12 77   STRING CS    LMAINX                                  B   4  0156  / 086             183
1298 12 78          B     CTAPEX                                  B   4  0160  B W50             183
1299 12 79          NOP   TDFIO5                                  B   4  0164  N 132             184
1300 12 80          B     HAPPYX&5                                B   4  0168  B N75             184
1301 12 81          LTORG *                                       B            0172
                    DCW   @1@                                     B   1  0172            LIT    184
                          @/086@                                  B   4  0176            LIT    184
1302 12 82   *
1303 12 83   *   PARAMETER TABLE
1304 12 84   *
1305 12 85          ORG   201                                     B            0201
1306 12 86          DA    1X266                                   B      0201  0466              184
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1307 12 87           261,266  PARTBB                             B       0466              FIELD  184
1308 12 88  *
1309 12 89  *    PROCESS EX
1310 12 90  *
1311 12 91  OKAY   SBR   SWITCH&3,CMALTB                         B   7   0467  H L04 510          185
1312 12 92  EXSET  C     CALLTX,BLANKS-2    Q. ANY CALLS       B   7   0474  C !73 W14          185
1313 12 93           BE    PREEM                                 B   5   0481  B 506 S            185
1314 12 94  ATLSA  B     SUREXX                                  B   4   0486  B T08              185
1315 12 95           B     PREEM                                 B   4   0490  B 506              185
1316 12 96  LORGS  C     CALLTX,BLANKS-2    Q. ANY CALLS       B   7   0494  C !73 W14          185
1317 12 97           BU    HAULIT                                B   5   0501  B S64 /            185
1318 12 98  PREEM  B     CARDS                                   B   4   0506  B 525              186
1319 12 99  *
1320 13 00  *     INPUT ROUTINE
1321 13 01  *
1322 13 02  CMALT  BSS   LSTCD,C            Q.  NO ALTERS      B   5   0510  B 686 C            186
1323 13 03           BSS   LSTCD,A           Q. NO MORE ALTERS  B   5   0515  B 686 A            186
1324 13 04           CS    LMAINX                                B   4   0520  / 086              186
1325 13 05           R                                           B   1   0524  1                  186
1326 13 06  CARDS  SBR   PREEM&3,SBROTX                         B   7   0525  H 509 O33          186
1327 13 07           MCW   @SCR@,CHARCR                         B   7   0532  M |15 U62          186
1328 13 08           MCW                                       B   1   0539  M                  187
1329 13 09           MCW                                       B   1   0540  M                  187
1330 13 10  YOURS  C     MAINXX&17,@ALT@                         B   7   0541  C 018 |18          187
1331 13 11           BCE   TREAD,MAINXX&5,*                     B   8   0548  B 697 006 *        187
1332 13 12           BU    TREAD                                 B   5   0556  B 697 /            187
1333 13 13           S     INDEX1&1                              B   4   0561  S 090              187
1334 13 14           B     SCANXX                                B   4   0565  B M19              187
1335 13 15           ZA    MAINXX&18&X1,HLDA1#4                  B   7   0569  ? 0/9 |22          188
1336 13 16  ALTR4  B     CTAPEX             GET NEXT RECORD    B   4   0576  B W50              188
1337 13 17           NOP   TDFRAL                               B   4   0580  N 922              188
1338 13 18           MCW   @R@,OUTPTX&84                       B   7   0584  M |23 I96          188
1339 13 19           SW    LOPUTX&1                              B   4   0591  , I98              188
1340 13 20           C     OUTPTX&83,HLDA1                       B   7   0595  C I95 |22          188
1341 13 21  CALTR  BE    ALTR3              Q.  ALTER NUMBER EQUAL TO  B   5   0602  B 631 S        188
1342 13 22           C     OUTPTX&17,@END@    NUMBER ON ALTER CARD  B   7   0607  C I29 |26      189
1343 13 23           BE    ENDST              NO. WRITE TAPE     B   5   0614  B |02 S            189
1344 13 24           B     CTAPEX                                B   4   0619  B W50              189
1345 13 25           NOP   TDF6 X                               B   4   0623  N O24              189
1346 13 26           B     ALTR4                                 B   4   0627  B 576              189
1347 13 27  ALTR3  BCE   ALTR5,MAINXX&19&X1,,                   B   8   0631  B 651 0S0 ,        189
1348 13 28           B     CTAPEX             Q. DLEETION        B   4   0639  B W50              189
1349 13 29           NOP   TDF6 X                               B   4   0643  N O24              190
1350 13 30           B     SWITCH                                B   4   0647  B L01              190
1351 13 31  ALTR5  B     SCANXX                                  B   4   0651  B M19              190
1352 13 32           ZA    MAINXX&18&X1,HLDA1                    B   7   0655  ? 0/9 |22          190
1353 13 33  ALTR6  C     OUTPTX&83,HLDA1                       B   7   0662  C I95 |22          190
1354 13 34           BE    MACRO              DELETE UNTIL SECOND ALTER  B   5   0669  B 931 S    190
1355 13 35           B     CTAPEX             NUMBER IS REACHED  B   4   0674  B W50              190
1356 13 36           NOP   TDFRAL                                B   4   0678  N 922              191
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1357 13 37          B     ALTR6                                      B   4  0682  B 662             191
1358 13 38   LSTCD   MCW   @N@,CALTR                                 B   7  0686  M |27 602         191
1359 13 39          B     ALTR4                                      B   4  0693  B 576             191
1360 13 40   *
1361 13 41   *               MAJOR PROCESSING
1362 13 42   *
1363 13 43   TREAD  SW    1                                          B   4  0697  , 001             191
1364 13 44          SBR   BRNCHX&3,SWITCH                            B   7  0701  H O99 L01         191
1365 13 45          BCE   HOMEXX,MAINXX&5,*                         B   8  0708  B O48 006 *       191
1366 13 46          C     MAINXX&17,@MLC@                            B   7  0716  C 018 |30         192
1367 13 47          BE    HOMEXX                                     B   5  0723  B O48 S           192
1368 13 48          C     MAINXX&17,@CHA@                            B   7  0728  C 018 |33         192
1369 13 49          BE    CHAINX                                     B   5  0735  B H11 S           192
1370 13 50          C     MAINXX&17,@ENT@    Q. ENTER CARD           B   7  0740  C 018 |36         192
1371 13 51          BE    ENTST                                      B   5  0747  B 879 S           192
1372 13 52   SWMA1  C     MAINXX&17,@MA @    Q. MODIFY ADDRESS MACRO B   7  0752  C 018 |39         193
1373 13 53   SWMA2  BE    MASETX                                     B   5  0759  B U33 S           193
1374 13 54          C     MAINXX&17,@EX @    Q. EX CARD              B   7  0764  C 018 |42         193
1375 13 55          BE    EXSET                                      B   5  0771  B 474 S           193
1376 13 56          C     MAINXX&17,@END@    Q. END CARD             B   7  0776  C 018 |26         193
1377 13 57          BE    ENDSTX                                     B   5  0783  B U78 S           193
1378 13 58          C     MAINXX&18,WHOOPS   Q.  CALL STATEMENT      B   7  0788  C 019 W05         194
1379 13 59          BE    CALLNX                                     B   5  0795  B J51 S           194
1380 13 60          C     MAINXX&19,INCLDX                           B   7  0800  C 020 U59         194
1381 13 61          BE    CALLNX                                     B   5  0807  B J51 S           194
1382 13 62          C     MAINXX&19,LITORG-1                         B   7  0812  C 020 T57         194
1383 13 63          BE    LORGS                                      B   5  0819  B 494 S           194
1384 13 64          SBR   INDEX3,TABLEI      Q. GET, PUT, OPEN OR CLOSE B   7  0824  H 099 T74      195
1385 13 65   COMIOC C     MAINXX&17,0&X3                             B   7  0831  C 018 0?0         195
1386 13 66          SBR   INDEX3                                     B   4  0838  H 099             195
1387 13 67          BE    MSUBTX                                     B   5  0842  B P00 S           195
1388 13 68          BCE   OUTIOC,0&X3,#                              B   8  0847  B 859 0?0 #       195
1389 13 69          B     COMIOC                                     B   4  0855  B 831             195
1390 13 70   OUTIOC BCE   HOMEXX,MAINXX&19,                         B   8  0859  B O48 020         196
1391 13 71          BCE   HOMEXX,MAINXX&15,                         B   8  0867  B O48 016         196
1392 13 72          B     MSUBTX             NO. MACRO              B   4  0875  B P00             196
1393 13 73   *
1394 13 74   *     PROCESS FIXED FORM RECORD
1395 13 75   *
1396 13 76   ENTST  B     SBROTX                                     B   4  0879  B O33             196
1397 13 77          R                                               B   1  0883  1                 196
1398 13 78          BCE   ENTST,MAINXX&7,*                         B   8  0884  B 879 008 *       196
1399 13 79          C     MAINXX&15,@END@    Q. END CARD             B   7  0892  C 016 |26         197
1400 13 80          BE    ENDSTX                                     B   5  0899  B U78 S           197
1401 13 81          C     MAINXX&15,@ENT@    Q. NEW MODE             B   7  0904  C 016 |36         197
1402 13 82          BU    ENTST                                      B   5  0911  B 879 /           197
1403 13 83          B     PREEM                                      B   4  0916  B 506             197
1404 13 84   TDFRAL DCW   000                                        B   3  0922                    197
1405 13 85          DCW   @M%U4I12R@                                B   8  0930                    197
1406 13 86   *
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 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

1407 13 87   *    DELETE ENTIRE MACRO
1408 13 88   *
1409 13 89   MACRO  BCE   OUTMC,OUTPTX&74,R                 B   8  0931  B 943 I86 R        198
1410 13 90          B     SWITCH                            B   4  0939  B L01             198
1411 13 91   OUTMC  B     CTAPEX                            B   4  0943  B W50             198
1412 13 92          NOP   TDFRAL                           B   4  0947  N 922             198
1413 13 93          C     OUTPTX&19,BLANKS                  B   7  0951  C I31 W16         198
1414 13 94   MCOUT  BE    OUTMC                             B   5  0958  B 943 S           198
1415 13 95          MCW   @N@,MCOUT                         B   7  0963  M |27 958        198
1416 13 96          BCE   OUTMC,OUTPTX&74,S                 B   8  0970  B 943 I86 S       199
1417 13 97          BCE   OUTMC,OUTPTX&74,C                 B   8  0978  B 943 I86 C       199
1418 13 98          BSP   4                                 B   5  0986  U %U4 B           199
1419 13 99          MCW   OUTMC,MCOUT                       B   7  0991  M 943 958         199
1420 14 00          B     CMALT                             B   4  0998  B 510             199
1421 14 01   *
1422 14 02   *   PROCESS END CARD
1423 14 03   *
1424 14 04   ENDST  MCW   LOPUTX,LMAINX                     B   7  1002  M I97 086         199
1425 14 05          B     ENDSTX                            B   4  1009  B U78             200
1426 14 06          LTORG *                                 B             1013
                    DCW   @SCR@                             B   3  1015            LIT   200
                          @ALT@                             B   3  1018            LIT   200
       1335  HLDA1        #04                               B   4  1022            AREA  200
                          @R@                               B   1  1023            LIT   200
                          @END@                             B   3  1026            LIT   200
                          @N@                               B   1  1027            LIT   200
                          @MLC@                             B   3  1030            LIT   201
                          @CHA@                             B   3  1033            LIT   201
                          @ENT@                             B   3  1036            LIT   201
                          @MA @                             B   3  1039            LIT   201
                          @EX @                             B   3  1042            LIT   201
1427 14 07   GM2XXX DCW   @}@                               B   1  1043                  201
1428 14 08   NUORIG EQU   *&1                               B      1044
1429 14 09          EX                                      B            B 000           202
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 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
1430 14 10          JOB   1401 AUTOCODER - PASS 2 - INITIAL ASSEMBLY VERSION 3
1431 14 11   *
1432 14 12   *        AREA DEFINITION
1433 14 13   *
1434 14 14          SFX   A
1435 14 15          ORG   1                                           A            0001
1436 14 16   MAINXX DA    1X86                                        A      0001  0086              205              ADDR
1437 14 17          ORG   87                                          A            0087
1438 14 18          DCW   @000@                                       A   3  0089                    205
1439 14 19          DC    00                                          A   2  0091                    205
1440 14 20          DCW   @000@                                       A   3  0094                    205
1441 14 21          DC    00                                          A   2  0096                    205
1442 14 22          DCW   @000@                                       A   3  0099                    205
1443 14 23          DC    00                                          A   2  0101                    205
1444 14 24          ORG   101                                         A            0101
1445 14 25          DA    1X86          INPUTX                        A      0101  0186              205
1446 14 26   LIPUTX EQU   *                                           A      0186
1447 14 27          DC    @}@                                         A   1  0187                    206
1448 14 28   ZEROXX DC    0                                           A   1  0188                    206
1449 14 29   CARDSX DC    0                                           A   1  0189                    206
1450 14 30   HLDSBX DCW   @***@                                       A   3  0192                    206
1451 14 31   *
1452 14 32   *    INITIALIZATION
1453 14 33   *
1454 14 34          ORG   100                                         A            0100
1455 14 35          DC    @}@                                         A   1  0100                    207
1456 14 36   START  CS    CALLTX                                      A   4  0101  / !73              207
1457 14 37          CS                                                A   1  0105  /                   207
1458 14 371         BCE   *&5,CARDSX,1                                A   8  0106  B 118 189 1        207
1459 14 372         B     RED                                         A   4  0114  B 132              207
1460 14 373         MCW   @N@,RHO&1                                   A   7  0118  M 959 764          208
1461 14 374         MCW   @N@,TSTEN&5                                 A   7  0125  M 959 780          208
1462 14 380  RED    SW    NTPER&4                                     A   4  0132  , 885              208
1463 14 39          SW    TSTEN&4                                     A   4  0136  , 779              208
1464 14 40          SW    OUTS2&4                                     A   4  0140  , 762              208
1465 14 41          BCE   READT,IOCSAV-3,*                           A   8  0144  B 467 H07 *        208
1466 14 42          MCW   @N@,SWMA1                                   A   7  0152  M 959 526          209
1467 14 43          MCW   @N@,SWMA2                                   A   7  0159  M 959 533          209
1468 14 44          B     READT                                       A   4  0166  B 467              209
1469 14 45          ORG   201                                         A            0201
1470 14 46          DA    1X266                                       A      0201  0466              209
1471 14 47   PARTBX       261,266                                     A      0466            FIELD  209
1472 14 48   *
1473 14 49   *   MAJOR PROCESSING
1474 14 50   *
1475 14 51   READT  B     TWEDB              GET NEXT RECORD          A   4  0467  B 653              210
1476 14 52   TREAD  SW    1                                           A   4  0471  , 001              210
1477 14 53          SBR   BRNCHX&3,READT                              A   7  0475  H 099 467          210
1478 14 54          BCE   OUTS2,MAINXX&5,*   Q. COMMENTS CARD       A   8  0482  B 758 006 *        210
1479 14 55          C     MAINXX&19,@CHAIN@                           A   7  0490  C 020 964          210
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1480 14 56           BE    CHAINX                                   A  5  0497  B H11 S           210
1481 14 57           C     MAINXX&19,@MLCWA@                        A  7  0502  C 020 969         211
1482 14 58           BE    OUTS2                                    A  5  0509  B 758 S           211
1483 14 59           C     MAINXX&17,@ENT@     Q. ENTER CARD        A  7  0514  C 018 972         211
1484 14 60           BE    ENTST                                    A  5  0521  B 795 S           211
1485 14 61   SWMA1   C     MAINXX&19,@MA   @   Q. MODIFY ADDRESS MACRO A  7  0526  C 020 977     211
1486 14 62   SWMA2   BE    MASETX                                   A  5  0533  B U33 S           211
1487 14 63           C     MAINXX&19,@EX   @   Q. EX CARD           A  7  0538  C 020 982         212
1488 14 64           BE    EXSET                                    A  5  0545  B 857 S           212
1489 14 65           C     MAINXX&17,@END@     Q. END CARD          A  7  0550  C 018 985         212
1490 14 66           BE    ENDSTX                                   A  5  0557  B U78 S           212
1491 14 67           C     MAINXX&18,WHOOPS                         A  7  0562  C 019 W05         212
1492 14 68           BE    CALLNX              Q. CALL STATEMENT    A  5  0569  B J51 S           212
1493 14 69           C     MAINXX&19,INCLDX                         A  7  0574  C 020 U59         213
1494 14 70           BE    CALLNX                                   A  5  0581  B J51 S           213
1495 14 71           C     MAINXX&19,@LTORG@                        A  7  0586  C 020 990         213
1496 14 72           BE    LORGS               Q. LTORG CARD        A  5  0593  B 918 S           213
1497 14 73           SBR   INDEX3,TABLEI                           A  7  0598  H 099 T74         213
1498 14 74   FEW     C     MAINXX&17,0&X3                           A  7  0605  C 018 0?0         213
1499 14 75           SBR   INDEX3                                   A  4  0612  H 099             214
1500 14 76           BE    MSUBTX                                   A  5  0616  B P00 S           214
1501 14 77           BCE   MANY,0&X3,#                              A  8  0621  B 633 0?0 #       214
1502 14 78           B     FEW                                      A  4  0629  B 605             214
1503 14 79   MANY    BCE   OUTS2,MAINXX&19,                         A  8  0633  B 758 020         214
1504 14 80           BCE   OUTS2,MAINXX&15,                         A  8  0641  B 758 016         214
1505 14 81           B     MSUBTX              NO. MACRO            A  4  0649  B P00             215
1506 14 82   *
1507 14 83   *     INPUT ROUTINE
1508 14 84   *
1509 14 85   TWEDB   SBR   TWDB1&3                                  A  4  0653  H 696             215
1510 14 86           CS    LMAINX                                   A  4  0657  / 086             215
1511 14 87           B     RTWED                                    A  4  0661  B 677             215
1512 14 88   CHART   C                                              A  1  0665  C                 215
1513 14 89           BSS   EOF4,A              Q. LAST CARD         A  5  0666  B 934 A           215
1514 14 90           R                                              A  1  0671  1                 215
1515 14 91           SSB   TWDB1,1                                  A  5  0672  K 693 1           216
1516 14 92   RTWED   B     CTAPEX                                   A  4  0677  B W50             216
1517 14 93           NOP   TDF4                                     A  4  0681  N 699             216
1518 14 94           BCE   CHANGE,MAINXX&73,N                       A  8  0685  B 708 074 N       216
1519 14 95   TWDB1   B     TREAD                                    A  4  0693  B 471             216
1520 14 96   TDF4    DCW   &EOF4                                   A  3  0699  934               216
1521 14 97           DCW   @M%U5001R@                               A  8  0707                  216
1522 14 98   CHANGE  CW    CHART,TSTEN&4                            A  7  0708  ) 665 779         217
1523 14 99           MN    @4@,TDF4&4                               A  7  0715  D 991 703         217
1524 15 00           CW    OUTS2&4,NTPER&4                          A  7  0722  ) 762 885         217
1525 15 01           C     CALLTX,BLANK                             A  7  0729  C !73 999         217
1526 15 02           BE    HOOHA                                    A  5  0736  B 745 S           217
1527 15 03           B     SUREXX                                   A  4  0741  B T08             217
1528 15 04   HOOHA   MCW   @SCR@,CHARCR                            A  7  0745  M 994 U62         218
1529 15 05           MCW                                            A  1  0752  M                 218
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1530 15 06          MCW                                             A   1  0753  M                 218
1531 15 07          B     TWDB1                                     A   4  0754  B 693             218
1532 15 08   *
1533 15 09   *     READ RELEASE
1534 15 10   *
1535 15 11   OUTS2  BSS   OUTSBX,C           Q. TAPE INPUT         A   5  0758  B O41 C           218
1536 15 12   RHO    NOP                                            A   1  0763  N                 218
1537 15 13          MCW   @8@,RHO                                   A   7  0764  M 995 763         218
1538 15 14          B     OUTSBX                                    A   4  0771  B O41             219
1539 15 15   *
1540 15 16   *    FIXED FORM RECORDS
1541 15 17   *
1542 15 18   TSTEN  BSS   ENTST,C           Q. TAPE INPUT         A   5  0775  B 795 C           219
1543 15 19          SRF                     NO. START RAD FEED    A   1  0780  8                 219
1544 15 20          SBR   NOSIR&3,ANTST                            A   7  0781  H 917 803         219
1545 15 21          MCW   @N@,BUT1XX                               A   7  0788  M 959 O37         219
1546 15 22   ENTST  B     SBROTX                                    A   4  0795  B O33             219
1547 15 23          B     TWEDB                                     A   4  0799  B 653             219
1548 15 24   ANTST  MCW   @B@,BUT1XX                               A   7  0803  M 996 O37         220
1549 15 25          SBR   NOSIR&3,TREAD                            A   7  0810  H 917 471         220
1550 15 26          BCE   TSTEN,MAINXX&7,*                        A   8  0817  B 775 008 *       220
1551 15 27          C     MAINXX&15,@END@   Q. END CARD           A   7  0825  C 016 985         220
1552 15 28          BE    ENDSTX                                    A   5  0832  B U78 S           220
1553 15 29          C     MAINXX&15,@ENT@   Q. NEW MODE           A   7  0837  C 016 972         221
1554 15 30          BU    TSTEN                                     A   5  0844  B 775 /           221
1555 15 31          B     SBROTX                                    A   4  0849  B O33             221
1556 15 32          B     READT                                     A   4  0853  B 467             221
1557 15 33   *
1558 15 34   *    PROCESS EX
1559 15 35   *
1560 15 36   EXSET  C     CALLTX,BLANK#3    Q. ANY CALLS            A   7  0857  C !73 999         221
1561 15 37          BE    OUTS2                                     A   5  0864  B 758 S           221
1562 15 38          B     SUREXX                                    A   4  0869  B T08             221
1563 15 39          B     SBROTX                                    A   4  0873  B O33             222
1564 15 40          B     READT                                     A   4  0877  B 467             222
1565 15 41   *
1566 15 42   *    READ RELEASE REDUNDANCY ROUTINE
1567 15 43   *
1568 15 44   NTPER  BSS   YESIR,C           Q. TAPE INPUT         A   5  0881  B 896 C           222
1569 15 45          R                                               A   1  0886  1                 222
1570 15 46          SS    1                                         A   2  0887  K 1               222
1571 15 47          MCW   @N@,RHO                                   A   7  0889  M 959 763         222
1572 15 48   YESIR  SBR   COMETS&3,CRWRED                          A   7  0896  H X65 X71         222
1573 15 49          SBR   CCONPR&3,NOSIR                          A   7  0903  H X70 914         223
1574 15 50          B     CRWRED                                    A   4  0910  B X71             223
1575 15 51   NOSIR  B     TREAD                                     A   4  0914  B 471             223
1576 15 52   *
1577 15 53   *     PROCESS LTORG
1578 15 54   *
1579 15 55   LORGS  C     CALLTX,BLANK      Q. ANY CALLS            A   7  0918  C !73 999         223
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1580 15 56           BU    HAULIT                                     A  5  0925  B S64 /            223
1581 15 57           B     OUTS2                                      A  4  0930  B 758              223
1582 15 58   EOF4    CS    LMAINX                                     A  4  0934  / 086              223
1583 15 59           SW    1                                          A  4  0938  , 001              224
1584 15 60           MCW   @END$$$@,MAINXX&18                       A  7  0942  M |05 019          224
1585 15 61           B     ENDSTX                                     A  4  0949  B U78              224
1586 15 62   ANTPER  DCW   &NTPERA                                    A  3  0955  881                224
1587 15 63   ACRWED  DCW   &CRWRED                                    A  3  0958  X71                224
1588 15 64           LTORG *                                          A           0959
                     DCW   @N@                                        A  1  0959             LIT   224
       1479                @CHAIN@                                  A  5  0964             LIT   224
       1481                @MLCWA@                                  A  5  0969             LIT   225
                           @ENT@                                    A  3  0972             LIT   225
       1485                @MA   @                                  A  5  0977             LIT   225
       1487                @EX   @                                  A  5  0982             LIT   225
                           @END@                                    A  3  0985             LIT   225
       1495                @LTORG@                                  A  5  0990             LIT   225
                           @4@                                      A  1  0991             LIT   225
                           @SCR@                                    A  3  0994             LIT   226
                           @8@                                      A  1  0995             LIT   226
                           @B@                                      A  1  0996             LIT   226
       1560  BLANK         #03                                      A  3  0999             AREA  226
       1584                @END$$$@                                 A  6  1005             LIT   226
1589 15 65   *
1590 15 66   *   MAIN LINE PROCESSING ANNEX
1591 15 67   *
1592 15 68           SFX   X
1593 15 69           ORG   NUORIG                                     X           1044
1594 15 70   EOF1B   RWD   1                                          X  5  1044  U %U1 R            227
1595 15 71           S     PREVS                                      X  4  1049  S H72              227
1596 15 72           B     SWITCH                                     X  4  1053  B L01              227
1597 15 73   *
1598 15 74   *   PROCESS LOZENGED FIELD  6  -  20
1599 15 75   *
1600 15 76   LOZENG  BM    MLBLZ,MAINX&2&X1   Q. INTERNAL LABEL      X  8  1057  V D68 0|3 K       227
1601 15 77           B     LABEL                                      X  4  1065  B /19             227
1602 15 78           MCW   BLANKS,MAINX&4&X1                         X  7  1069  M W16 0|5         227
1603 15 79           MCW   INDEX1,SAVX1#3                           X  7  1076  M 089 W11         227
1604 15 80           MCW   INDEX3,INDEX2                            X  7  1083  M 099 094         228
1605 15 81           B     SBGRD                                      X  4  1090  B G46             228
1606 15 82           A     SAVX1,INDEX1                               X  7  1094  A W11 089         228
1607 15 83           MCW   0&X3,MAINX&X1                           X  7  1101  M 0?0 0|1         228
1608 15 84           MCW   SAVX1,INDEX1                            X  7  1108  M W11 089         228
1609 15 85           B     UPENGL                                     X  4  1115  B A48             228
1610 15 86   *
1611 15 87   *   LOCATE PARAMETERS
1612 15 88   *
1613 15 89   LABEL   SBR   LEXIT&3                                   X  4  1119  H S63             229
1614 15 90           MCW   BLANKS#5,INDEX3                         X  7  1123  M W16 099         229
1615 15 91           MCW   BLANKS,CNTP                              X  7  1130  M W16 W19         229
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1616 15 92          MN    MAINX&1&X1,CNTP                           X   7  1137  D 0|2 W19         229
1617 15 93   CIRCL   S     &1,CNTP                                   X   7  1144  S W17 W19         229
1618 15 94          BM    TENSR,CNTP                                X   8  1151  V /70 W19 K       230
1619 15 95          A     @3@,INDEX3                                X   7  1159  A W18 099        230
1620 15 96          B     CIRCL                                     X   4  1166  B /44            230
1621 15 97   TENSR  BCE   CHZON,DECTB-2&X3,0                        X   8  1170  B !74 UI0 0      230
1622 15 98          MCW   BLANKS,CNTP#1                            X   7  1178  M W16 W19        230
1623 15 99          MCW   DECTB&X3,INDEX3                          X   7  1185  M UI2 099        231
1624 16 00          MN    MAINX&2&X1,CNTP                           X   7  1192  D 0|3 W19        231
1625 16 01   MOVINP S     &1,CNTP                                   X   7  1199  S W17 W19        231
1626 16 02          MCW   0&X3,0&X3                                 X   7  1206  M 0?0 0?0        231
1627 16 03          SAR   WAREA#3                                   X   4  1213  Q W22            231
1628 16 04          BCE   CHZON,0&X3,,       Q. MISSING PARAMETER   X   8  1217  B !74 0?0 ,      232
1629 16 05          BM    PUTIN,CNTP         Q. PARAMETER LOCATED   X   8  1225  V S44 W19 K      232
1630 16 06          MCW   WAREA,INDEX3                              X   7  1233  M W22 099        232
1631 16 07          B     MOVINP                                    X   4  1240  B /99            232
1632 16 08   PUTIN  BCE   CHZON,0&X3,;                              X   8  1244  B !74 0?0 ;      232
1633 16 09          BWZ   DELET,MAINX&2&X1,S                        X   8  1252  V D41 0|3 S      233
1634 16 10   LEXIT  B     0                                         X   4  1260  B 000            233
1635 16 11   *
1636 16 12   *    PROCESS LTORG
1637 16 13   *
1638 16 14   HAULIT MCW   @ORG  @,MAINX&19   REPLACE LTORG WITH ORG  X   7  1264  M W27 020        233
1639 16 15          MCW   @L@,MAINX&74                              X   7  1271  M W28 075        233
1640 16 16          B     SBROT                                     X   4  1278  B O33            233
1641 16 17          B     EXITC                                     X   4  1282  B D79            233
1642 16 18          CS    LMAIN                                     X   4  1286  / 086            233
1643 16 19          MCW   LITORG,MAINX&20    GENERATE LTORG*        X   7  1290  M T58 021        234
1644 16 20          MCW   CHARCC,MAINX&74                           X   7  1297  M U61 075        234
1645 16 21          B     WHYYY                                     X   4  1304  B K97            234
1646 16 22   *
1647 16 23   *              PREPARATION FOR LTORG,EX,EX OR IOCS
1648 16 24   *
1649 16 25   SUREX  SBR   SIMPLE&3                                  X   4  1308  H T41            234
1650 16 26          SW    1                                         X   4  1312  , 001            234
1651 16 27          CS    LIPUTX                                    X   4  1316  / 186            234
1652 16 28          LCA   LMAINX,LIPUTX                            X   7  1320  L 086 186        234
1653 16 29          B     EXITCX                                    X   4  1327  B D79            235
1654 16 30          LCA   LIPUTX,LMAINX                           X   7  1331  L 186 086        235
1655 16 31   SIMPLE B     0                                         X   4  1338  B 000            235
1656 16 32   TDFEXT DCW   &RWDEXT                                  X   3  1344  D83              235
1657 16 33          DCW   @M%U1001R@                              X   8  1352                   235
1658 16 34   LITORG DCW   @LTORG*@                                 X   6  1358                   235
1659 16 35   *
1660 16 36   *   IOCS TABLE
1661 16 37   *
1662 16 38          DCW   @#@                                     X   1  1359                   235
1663 16 39          DCW   @RLS@                                   X   3  1362                   236
1664 16 40          DCW   @GET@                                   X   3  1365                   236
1665 16 41          DCW   @PUT@                                   X   3  1368                   236
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1666 16 42          DCW   @DTF@                                    X  3  1371                    236
1667 16 43   TABLEI DCW   @OPE@                                    X  3  1374                    236
1668 16 44   *
1669 16 45   *  GENERATE UNKNOWN MACRO CARD
1670 16 46   *
1671 16 47   NOROT  SBR   NROTC&3                                  X  4  1375  H U14             236
1672 16 48          CS    LMAINX                                   X  4  1379  / 086             236
1673 16 49          MCW   @B@,MAINX&85                             X  7  1383  M W29 086          237
1674 16 50          MCW   @UNKNOWN@,MAINX&19                      X  7  1390  M W36 020          237
1675 16 51          MCW   CHARCC,MAINX&74                         X  7  1397  M U61 075          237
1676 16 52          MCW   @*@,MAINX&5                            X  7  1404  M W37 006          237
1677 16 53   NROTC  B     0                                        X  4  1411  B 000              237
1678 16 54   POTS   MCW   @B@,SWITCH                              X  7  1415  M W29 L01          237
1679 16 55          MCW   @N@,NEXTCD                             X  7  1422  M W38 N66          238
1680 16 56          B     COOKER                                   X  4  1429  B E90              238
1681 16 57   *
1682 16 58   *   MODIFY ADDRESS MACRO
1683 16 59   *
1684 16 60   MASET  MCW   CHARCR,MAINX&74                         X  7  1433  M U62 075          238
1685 16 61          B     SBROTX                                   X  4  1440  B O33              238
1686 16 62          MCW   @D@,MAINX&17                            X  7  1444  M W39 018          238
1687 16 63          B     SGC                                      X  4  1451  B P18              238
1688 16 64   INCLDX DCW   @INCLD@                                  X  5  1459                    238
1689 16 65   CHARCS DCW   @Z@                                      X  1  1460                    239
1690 16 66   CHARCC DCW   @Y@                                      X  1  1461                    239
1691 16 67   CHARCR DCW   @W@                                      X  1  1462                    239
1692 16 68   KINGS  B     NOROT                                    X  4  1463  B T75              239
1693 16 69          MCW   HLDSB,MAINX&10                          X  7  1467  M 192 011          239
1694 16 70          B     WHYYY                                    X  4  1474  B K97              239
1695 16 71   ENDSTX B     CTAPE                                    X  4  1478  B W50              239
1696 16 72          NOP   TDF5                                     X  4  1482  N V89              240
1697 16 73          B     OVLY4I                                   X  4  1486  B 434              240
1698 16 74   DECTB  DCW   &PARTB                                   X  3  1492  466                240
1699 16 75          DA    9X3                                      X     1493   1519             241
1700 16 76   ENDDC  EQU   *                                        X     1519                    241
1701 16 77   MOVEC  LCA   @;@,0&X3                                 X  7  1520  L W40 0?0          241
1702 16 78          SBR   INDEX3                                   X  4  1527  H 099              241
1703 16 79          A     @3@,INDEX2&1                             X  7  1531  A W18 095          242
1704 16 80          BCE   MIDLE,INDEX2&1,3                        X  8  1538  B H22 095 3        242
1705 16 81   LOWER  A     @1@,INDEX1                               X  7  1546  A W41 089          242
1706 16 82          SW    MAINX&20&X1                              X  4  1553  , 0S1              242
1707 16 83          BCE   MOVEC,MAINX&20&X1,,                     X  8  1557  B V20 0S1 ,        242
1708 16 84   WEEDD  MCW   INDEX2&1,IOCSAV                         X  7  1565  M 095 H10          243
1709 16 85          B     WEEDBX                                   X  4  1572  B N39              243
1710 16 86          MCW   IOCSAV,INDEX2&1                         X  7  1576  M H10 095          243
1711 16 87          B     COMSN                                    X  4  1583  B P79              243
1712 16 88   TDF5   DCW   #3                                       X  3  1589                    243
1713 16 89          RTW   5,OVLY4I                                X  8  1590  L %U5 434 R        243
1714 16 90   NEWEST DC    0                                        X  1  1598                    243
1715 16 91   SYMNM  DCW   @000@                                    X  3  1601                    243
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1716	16	92	WHOOPS	DCW	@CALL@	X	4	1605			244
1717	16	93	ADDCAL	DCW	&CALLTX	X	3	1608	!73		244
1718	16	94		LTORG	*	X			1609		
		1603	SAVX1	DCW	#03	X	3	1611		AREA	244
		1614	BLANKS		#05	X	5	1616		AREA	244
					&1	X	1	1617		LIT	244
					@3@	X	1	1618		LIT	244
		1622	CNTP		#01	X	1	1619		AREA	244
		1627	WAREA		#03	X	3	1622		AREA	245
		1638			@ORG @	X	5	1627		LIT	245
					@L@	X	1	1628		LIT	245
					@B@	X	1	1629		LIT	245
		1674			@UNKNOWN@	X	7	1636		LIT	245
					@*@	X	1	1637		LIT	245
					@N@	X	1	1638		LIT	245
					@D@	X	1	1639		LIT	246
					@;@	X	1	1640		LIT	246
					@1@	X	1	1641		LIT	246
1719	16	95		ORG	1649	X			1649		
1720	16	96	GM1	DCW	@}@	X	1	1649			247
1721	16	97		EX		X			B 000		248

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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1722 16 98          JOB   1401 AUTOCODER - PASS 2 - MACRO-GENERATOR- VERSION 3
1723 16 99          SFX   X
1724 17 00   *
1725 17 01   *   GENERALIZED TAPE INPUT/OUTPUT ROUTINE
1726 17 02   *
1727 17 03          ORG   1650                                      X            1650                 251
1728 17 04   CTAPEX SBR   INDEX2                                   X   4  1650  H 094                251
1729 17 05          SBR   CCONPR&3                                 X   4  1654  H X70                251
1730 17 06          MCW   3&X2,INDEX2                              X   7  1658  M 0!3 094            251
1731 17 07          MCW   8&X2,CTAPEC&7                            X   7  1665  M 0!8 X29            251
1732 17 08          MCW   0&X2,CEORC&3                            X   7  1672  M 0!0 X41            251
1733 17 09          SW    CCOMPR&4                                X   4  1679  , X47               251
1734 17 10          MCW   7&X2,CCOMPR&6                           X   7  1683  M 0!7 X49            252
1735 17 11          A     @12@,CCOMPR&6                           X   7  1690  A Y93 X49            252
1736 17 12          CW    CCOMPR&4                                X   4  1697  ) X47               252
1737 17 13          MN    CTAPEC&3,CHALT&6                        X   7  1701  D X25 Y55           252
1738 17 14          MN    CTAPEC&7,CHALT&6                        X   7  1708  D X29 Y55           252
1739 17 15          MCW   @9@,CERRCT#1                            X   7  1715  M Y94 Y95            252
1740 17 16   CTAPEC RT    0,0                                     X   8  1722  M %U0 000 R          253
1741 17 17          BCE   COMETS,CTAPEC&7,W                       X   8  1730  B X62 X29 W          253
1742 17 18   CEORC  BEF   0                                       X   5  1738  B 000 K              253
1743 17 19   CCOMPR BCE   CTAPEC,0,}                             X   8  1743  B X22 000 }          253
1744 17 20          B                                             X   1  1751  B                    253
1745 17 21          B                                             X   1  1752  B                    253
1746 17 22          B                                             X   1  1753  B                    253
1747 17 23          B                                             X   1  1754  B                    254
1748 17 24          B                                             X   1  1755  B                    254
1749 17 25          B                                             X   1  1756  B                    254
1750 17 26          B                                             X   1  1757  B                    254
1751 17 27          B                                             X   1  1758  B                    254
1752 17 28          B                                             X   1  1759  B                    254
1753 17 29          B                                             X   1  1760  B                    254
1754 17 30          B                                             X   1  1761  B                    255
1755 17 31   COMETS BER   CRWRED                                  X   5  1762  B X71 L              255
1756 17 32   CCONPR B     0                                       X   4  1767  B 000                255
1757 17 33   CRWRED S     @1@,CERRCT                              X   7  1771  S Y96 Y95            255
1758 17 34          MN    CTAPEC&3,*&4                            X   7  1778  D X25 X88            255
1759 17 35          BSP   0                                       X   5  1785  U %U0 B              255
1760 17 36          BCE   CTROW,CTAPEC&7,W                       X   8  1790  B Y10 X29 W          255
1761 17 37          BM    CHALT,CERRCT                            X   8  1798  V Y49 Y95 K          256
1762 17 38          B     CTAPEC                                  X   4  1806  B X22               256
1763 17 39   CTROW  A     @1@,CERASC#2                            X   7  1810  A Y96 Y98            256
1764 17 40          SKP   6                                       X   5  1817  U %U6 E              256
1765 17 41          BCE   CCHALT,CERASC-1,5                       X   8  1822  B Y34 Y97 5          256
1766 17 42          B     CTAPEC-7                                X   4  1830  B X15               256
1767 17 43   CCHALT S     CERASC                                  X   4  1834  S Y98               257
1768 17 44          H     0,202                                   X   7  1838  . 000 202           257
1769 17 45          B     CTAPEC-7                                X   4  1845  B X15               257
1770 17 46   CHALT  H     0,200                                   X   7  1849  . 000 200           257
1771 17 47          BSS   CTAPEC-7,E                              X   5  1856  B X15 E             257
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 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1772 17 48          MCW   CTAPEC&7,*&8                       X   7  1861  M X29 Y75          257
1773 17 49          RT    0,0                               X   8  1868  M %U0 000 R        258
1774 17 50          H     0,201                             X   7  1876  . 000 201          258
1775 17 51          B     CCONPR                            X   4  1883  B X67             258
1776 17 52   HEADR  DCW   @HEADR@                           X   5  1891                    258
1777 17 53          LTORG *                                 X          1892
                    DCW   @12@                              X   2  1893            LIT     258
                          @9@                               X   1  1894            LIT     258
       1739  CERRCT       #01                               X   1  1895            AREA    258
                          @1@                               X   1  1896            LIT     259
       1763  CERASC       #02                               X   2  1898            AREA    259
1778 17 54   *
1779 17 55   *   INITIALIZATION
1780 17 56   *
1781 17 57          ORG   1900                              X          1900
1782 17 58   STARTX MCW   340,IOCSAV                        X   7  1900  M 340 H10          260
1783 17 59          MCW                                     X   1  1907  M                 260
1784 17 595         MCW   NORDRL,HOLE#1                     X   7  1908  M W12 !55          260
1785 17 60          B     CTAPE                             X   4  1915  B W50             260
1786 17 61          NOP   TDFSS                             X   4  1919  N Z68             260
1787 17 62          CW    GM1                               X   4  1923  ) W49             260
1788 17 63          SW    3998                              X   4  1927  , I98             260
1789 17 64          MCW   LIPUT&1,3998                      X   7  1931  M 187 I98          261
1790 17 65          CW    3995,3997                         X   7  1938  ) I95 I97          261
1791 17 66          BSS   ALTERX,B                         X   5  1945  B Z77 B            261
1792 17 67          RWD   1                                 X   5  1950  U %U1 R            261
1793 17 675         MCW   HOLE,CARDSX                      X   7  1955  M !55 189          261
1794 17 68          B     STARTA                            X   4  1962  B 101             261
1795 17 69   TDFSS  DCW   &CCHALT                           X   3  1968  Y34               261
1796 17 70          DCW   @L%U1001R@                        X   8  1976                    262
1797 17 71   ALTERX B     CTAPEX                            X   4  1977  B W50             262
1798 17 72          NOP   TDFSS                             X   4  1981  N Z68             262
1799 17 73          CW    GM2XXX                            X   4  1985  ) |43             262
1800 17 74          RWD   1                                 X   5  1989  U %U1 R            262
1801 17 75          MCW   IOCSAV,SYMNM                      X   7  1994  M H10 W01          262
1802 17 76          MCW   &IOCALT,SWITCH&3                  X   7  2001  M !58 L04          262
1803 17 77          SBR   HAPPY&3,STRING                    X   7  2008  H N73 156          263
1804 17 78          MCW   @N@,OUTSB                         X   7  2015  M !59 O41          263
1805 17 79          MCW   @N@,BUT1X                         X   7  2022  M !59 O37          263
1806 17 80          MCW   @N@,BUT2X                         X   7  2029  M !59 O89          263
1807 17 81          BCE   VOICEB,IOCSAV-3,*                 X   8  2036  B 101 H07 *        263
1808 17 82          MCW   @N@,SWMA2B                        X   7  2044  M !59 759          264
1809 17 83          B     VOICEB                            X   4  2051  B 101             264
1810 17 84          LTORG *                                 X          2055
       1784  HOLE   DCW   #01                               X   1  2055            AREA    264
       1802                &IOCALT                         X   3  2058  106       ADCON   264
                           @N@                             X   1  2059            LIT     264
1811 17 85          ORG   1900                              X          1900
1812 17 86          DA    1X174                             X      1900  2073              264
1813 17 87   CALLT  EQU   *                                 X      2073
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1814 17 88   *
1815 17 89   *  PROCESS MISSING PARAMETERS WITH REGARD TO ZONE
1816 17 90   *
1817 17 91   CHZON  BWZ   SLASH,MAINX&2&X1,S                        X   8  2074  V J08 0|3 S        265
1818 17 92          BWZ   DELET,MAINX&2&X1,B                       X   8  2082  V D41 0|3 B        265
1819 17 93          MCW   @B@,MAINX&85                             X   7  2090  M H44 086          265
1820 17 94   ZONBR  CW    MAINX&X1,MAINX&3&X1                       X   7  2097  ) 0|1 0|4         265
1821 17 95   ZONCH  B     DEFND                                     X   4  2104  B ?41             265
1822 17 96   SLASH  MCW   BLANKS-2,MAINX&2&X1                      X   7  2108  M W14 0|3         266
1823 17 97          B     ZONBR                                     X   4  2115  B !97             266
1824 17 98   SUBSET MCW   @N@,SWITCH                               X   7  2119  M H45 L01         266
1825 17 99          MCW   @B@,NEXTCD                               X   7  2126  M H44 N66         266
1826 18 00          MCW   CHARCS,MAINX&74                          X   7  2133  M U60 075         266
1827 18 01          B     CALIT                                     X   4  2140  B J58             266
1828 18 02   MASKS  MCW   @B@,NOCAL                                X   7  2144  M H44 K20         267
1829 18 03   *
1830 18 04   *  PROCESSING CALL STATEMENT
1831 18 05   *
1832 18 06   CALLN  MCW   CHARCR,MAINX&74                          X   7  2151  M U62 075         267
1833 18 07   CALIT  MCW   ADDCAL,INDEX2      BEGIN SCAN OF CALL TABLE X   7  2158  M W08 094         267
1834 18 08          SW    MAINXX&20                                 X   4  2165  , 021             267
1835 18 09   YSCALX BCE   XXXX,INDEX2-2,Y    Q. CALL TABLE EXCEEDED  X   8  2169  B K90 092 Y       267
1836 18 10          C     0&X2,@   @                                X   7  2177  C 0!0 H48         268
1837 18 11          BE    SPADEX                                    X   5  2184  B K09 S           268
1838 18 12          C     0&X2,MAINX&22                             X   7  2189  C 0!0 023         268
1839 18 13          SAR   INDEX2                                    X   4  2196  Q 094             268
1840 18 14          BE    QUEEN                                     X   5  2200  B K16 S           268
1841 18 15          B     YSCALX                                    X   4  2205  B J69             268
1842 18 16   SPADEX MCW   MAINX&22,0&X2                           X   7  2209  M 023 0!0         268
1843 18 17   QUEEN  CW    MAINXX&20                                 X   4  2216  ) 021             269
1844 18 18   NOCALX NOP   SKELCX                                   X   4  2220  N R17             269
1845 18 19          B     SBROT                                     X   4  2224  B O33             269
1846 18 20          BCE   SWITCH,MAINX&19,D  Q. INCLD STATEMENT    X   8  2228  B L01 020 D       269
1847 18 21   *
1848 18 22   *   LOAD PARAMETERS INTO TABLE
1849 18 23   *
1850 18 24          MCW   MAINX&10,PARTB                            X   7  2236  M 011 466         269
1851 18 25          SBR   INDEX3                                    X   4  2243  H 099             269
1852 18 26          S     INDEX1&1                                  X   4  2247  S 090             269
1853 18 27   DIMNDX B     SCANXX                                    X   4  2251  B M19             270
1854 18 28          SW    1                                         X   4  2255  , 001             270
1855 18 29          LCA   MAINX&18&X1,0&X3                         X   7  2259  L 0/9 0?0         270
1856 18 30          SBR   INDEX3                                    X   4  2266  H 099             270
1857 18 31          BCE   HEARTX,MAINX&19&X1,                       X   8  2270  B L09 0S0         270
1858 18 32          BCE   WEEDBX,MAINX&19&X1,,                      X   8  2278  B N39 0S0 ,       270
1859 18 33          B     DIMNDX                                    X   4  2286  B K51             270
1860 18 34   XXXX   MCW   @7@,MAINX&85                             X   7  2290  M H49 086         271
1861 18 35   WHYYY  B     SBROT                                     X   4  2297  B O33             271
1862 18 36   SWITCH B     READTA                                    X   4  2301  B 467             271
1863 18 37          B     POTS                                      X   4  2305  B U15             271
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1864 18 38   *
1865 18 39   *   GENERATE BRANCH AND DCW,S
1866 18 40   *
1867 18 41   HEARTX LCA   @ @,0&X3                                  X   7  2309  L H50 0?0          271
1868 18 42          CS    LMAINX                                    X   4  2316  / 086            271
1869 18 43          MCW   PARTB,MAINX&10                           X   7  2320  M 466 011         271
1870 18 44          MCW   PARTB-6,MAINX&24                          X   7  2327  M 460 025         272
1871 18 45          SAR   INDEX3                                    X   4  2334  Q 099            272
1872 18 46          MCW   @B@,MAINX&15                              X   7  2338  M H44 016         272
1873 18 47   SLAM   MCW   CHARCC,MAINX&74                           X   7  2345  M U61 075         272
1874 18 48          MCW   INDEX3,SAVXL2#3                           X   7  2352  M 099 H53         272
1875 18 49          MCW   SAVXL2,INDEX3                             X   7  2359  M H53 099         272
1876 18 50          CW    MAINX&23                                  X   4  2366  ) 024            273
1877 18 51          B     SBROT                                     X   4  2370  B O33            273
1878 18 52          CS    LMAINX                                    X   4  2374  / 086            273
1879 18 53          BCE   SWITCH,0&X3,                              X   8  2378  B L01 0?0         273
1880 18 54          MCW   @DCW@,MAINX&17                           X   7  2386  M H56 018         273
1881 18 55          MCW   INDEX3,INDEX2                             X   7  2393  M 099 094         273
1882 18 56          B     SBGRDX                                    X   4  2400  B G46            273
1883 18 57          MCW   0&X3,MAINX&20&X1                          X   7  2404  M 0?0 0S1        274
1884 18 58          SAR   INDEX3                                    X   4  2411  Q 099            274
1885 18 59          B     SLAM                                      X   4  2415  B L45            274
1886 18 60   *
1887 18 61   *     SCAN FOR COMMA, TWO BLANKS, OR AN @
1888 18 62   *
1889 18 63   SCANXX SBR   CLUBS&3                                   X   4  2419  H N12            274
1890 18 64   SCANL  SW    MAINX&20                                  X   4  2423  , 021            274
1891 18 65          BCE   SCNAT,MAINX&20&X1,@                       X   8  2427  B N13 0S1 @       274
1892 18 66          BCE   CETWMS,MAINX&20&X1,,                      X   8  2435  B M98 0S1 ,       274
1893 18 67          C     MAINX&20&X1,@  @                          X   7  2443  C 0S1 H58         275
1894 18 68          BE    CLUBS                                     X   5  2450  B N09 S           275
1895 18 69   CXIT1  A     @1@,INDEX1                                X   7  2455  A H59 089         275
1896 18 70          C     INDEX1,@52@                               X   7  2462  C 089 H61         275
1897 18 71          BU    SCANL                                     X   5  2469  B M23 /           275
1898 18 72          C     MAINX&71,@  @                             X   7  2474  C 072 H58         275
1899 18 73          BE    CLUBS                                     X   5  2481  B N09 S           276
1900 18 74          BCE   CLUBS,MAINX&71,                           X   8  2486  B N09 072         276
1901 18 75          B     CXIT                                      X   4  2494  B N02            276
1902 18 76   CETWMS SW    MAINX&21&X1                               X   4  2498  , 0S2            276
1903 18 77   CXIT   A     @1@,INDEX1                                X   7  2502  A H59 089         276
1904 18 78   CLUBS  B     0                                         X   4  2509  B 000            276
1905 18 79   SCNAT  ZA    @510@,INDEX1&1                            X   7  2513  ? H64 090         276
1906 18 80   ATLOK  BCE   CXIT1,MAINX&20&X1,@                       X   8  2520  B M55 0S1 @       277
1907 18 81          S     &10,INDEX1&1                              X   7  2528  S H66 090         277
1908 18 82          B     ATLOK                                     X   4  2535  B N20            277
1909 18 83   *
1910 18 84   *  OBTAIN MORE PARAMETERS FROM ADDITIONAL RECORDS
1911 18 85   *
1912 18 86   WEEDBX SBR   WEDXT&3                                   X   4  2539  H O21            277
1913 18 87          B     NEWEED                                    X   4  2543  B N54            277
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 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
1914 18 88   WEDDBX A     @1@,INDEX1                                   X  7  2547  A H59 089          277
1915 18 89   NEWEED C     INDEX1,@52@                                  X  7  2554  C 089 H61          278
1916 18 90          BU    LOOPW                                        X  5  2561  B O06 /            278
1917 18 91   NEXTCD NOP   CALLCD                                       X  4  2566  N G80              278
1918 18 92   HAPPY  B     TWEDBA             READ NEXT RECORD          X  4  2570  B 653              278
1919 18 93          NOP                                               X  1  2574  N                  278
1920 18 94          MCW   CHARCR,MAINX&74                             X  7  2575  M U62 075          278
1921 18 95   THRU   B     SBROTX                                       X  4  2582  B O33              278
1922 18 96          BCE   HAPPY,MAINX&5,*                            X  8  2586  B N70 006 *        279
1923 18 97          S     INDEX1&1                                     X  4  2594  S 090              279
1924 18 98          BCE   MOVEC,MAINX&20,,   Q. FIRST PARAMETER MISSSING X  8  2598  B V20 021 ,      279
1925 18 99   LOOPW  BCE   WEDDBX,MAINX&20&X1,                         X  8  2606  B N47 0S1          279
1926 19 00          SW    MAINX&20&X1                                  X  4  2614  , 0S1              279
1927 19 01   WEDXT  B     0                                            X  4  2618  B 000              279
1928 19 02   TDF6   DCW   &CCHALT                                      X  3  2624  Y34                279
1929 19 03          DCW   @M%U6I12W@                                  X  8  2632                     280
1930 19 04   *
1931 19 05   *   OUTPUT ROUTINE
1932 19 06   *
1933 19 07   SBROTX SBR   BRNCH&3                                      X  4  2633  H O99              280
1934 19 08   BUT1X  B     HOMEX                                        X  4  2637  B O48              280
1935 19 09   OUTSB  MCW   ANTPER,COMETS&3                             X  7  2641  M 955 X65          280
1936 19 10   HOMEX  MCW   LMAIN,LOPUT                                 X  7  2648  M 086 I97          280
1937 19 11          BCE   BUT2X,OUTPT&73,*                           X  8  2655  B O89 I85 *        280
1938 19 12          MCW   BLANKS-3,OUTPT&73                          X  7  2663  M W13 I85          281
1939 19 13          SW    LOPUT&1                                      X  4  2670  , I98              281
1940 19 14          MCW   LIPUT&1,LOPUT&1                            X  7  2674  M 187 I98          281
1941 19 15          B     CTAPEX                                       X  4  2681  B W50              281
1942 19 16          NOP   TDF6                                         X  4  2685  N O24              281
1943 19 17   BUT2X  MCW   ACRWED,COMETS&3                            X  7  2689  M 958 X65          281
1944 19 18   BRNCH  B     0                                            X  4  2696  B 000              281
1945 19 19   *
1946 19 20   *  PROCESS PARAMETERS FOR SUBSTITUTIONS
1947 19 21   *
1948 19 22   MSUBTX MCW   @R@,MAINX&74                                X  7  2700  M H67 075          282
1949 19 23          B     SBROTX                                       X  4  2707  B O33              282
1950 19 24          A     @1@,SYMNM                                    X  7  2711  A H59 W01          282
1951 19 25   SGC    MCW   MAINX&17,HLDSB                              X  7  2718  M 018 192          282
1952 19 26          S     ENDDC                                        X  4  2725  S V19              282
1953 19 27          CHAIN 8                                                                 MACRO
1954                S                                                X  1  2729  S           GEN    282
1955                S                                                X  1  2730  S           GEN    282
1956                S                                                X  1  2731  S           GEN    283
1957                S                                                X  1  2732  S           GEN    283
1958                S                                                X  1  2733  S           GEN    283
1959                S                                                X  1  2734  S           GEN    283
1960                S                                                X  1  2735  S           GEN    283
1961                S                                                X  1  2736  S           GEN    283
1962 19 28          S     INDEX2&2                                     X  4  2737  S 096              283
1963 19 29          A     @3@,INDEX2&1                                 X  7  2741  A H68 095          284
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 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1964 19 30          MCW   MAINX&10,PARTB                     X   7  2748  M 011 466          284
1965 19 31          SBR   INDEX3                             X   4  2755  H 099              284
1966 19 32          S     INDEX1&1                           X   4  2759  S 090              284
1967 19 33          BCE   BTREND,MAINX&20,                   X   8  2763  B Q25 021          284
1968 19 34          BCE   MOVEC,MAINX&20,,                   X   8  2771  B V20 021 ,        284
1969 19 35   COMSN  A     @3@,INDEX2&1                       X   7  2779  A H68 095          285
1970 19 36          BCE   ABOVE,INDEX2&1,3                   X   8  2786  B H33 095 3        285
1971 19 37   BELOW  B     SCANXX                             X   4  2794  B M19              285
1972 19 38          LCA   MAINX&18&X1,0&X3                  X   7  2798  L 0/9 0?0          285
1973 19 39          SBR   INDEX3                             X   4  2805  H 099              285
1974 19 40          BCE   MOVEC,MAINX&20&X1,,                X   8  2809  B V20 0S1 ,        285
1975 19 41          BCE   WEEDD,MAINX&19&X1,,               X   8  2817  B V65 0S0 ,        286
1976 19 42   BTREND LCA   @,@,0&X3                          X   7  2825  L H69 0?0          286
1977 19 43          CS    LMAINX                             X   4  2832  / 086              286
1978 19 44          C     PREVS#3,HLDSB                      X   7  2836  C H72 192          286
1979 19 45          MCW   @999@,PREVS                        X   7  2843  M H75 H72          286
1980 19 46          BE    HARMN                              X   5  2850  B R65 S            286
1981 19 47          BH    RDTP1                              X   5  2855  B Q65 U            287
1982 19 48   EOF1   RWD   1                                  X   5  2860  U %U1 R            287
1983 19 49   *
1984 19 50   *               SUBSTITUTIONS
1985 19 51   *
1986 19 52   RDTP1  SW    100                                X   4  2865  , 100              287
1987 19 53          B     CTAPE                              X   4  2869  B W50              287
1988 19 54          NOP   TDFLIB                             X   4  2873  N B18              287
1989 19 55          C     MAINX&19,HEADR                     X   7  2877  C 020 Y91          287
1990 19 56          BU    RDTP1                              X   5  2884  B Q65 /            287
1991 19 57          C     MAINX&7,@999@                      X   7  2889  C 008 H75          288
1992 19 58          BE    KINGS                              X   5  2896  B U63 S            288
1993 19 59          C     MAINX&7,HLDSB                      X   7  2901  C 008 192          288
1994 19 60          BU    RDTP1                              X   5  2908  B Q65 /            288
1995 19 61          B     HARMN                              X   4  2913  B R65              288
1996 19 62   SKELC  MCW   @N@,NOCAL                          X   7  2917  M H45 K20          288
1997 19 63          MCW   CHARCS,MAINX&74                    X   7  2924  M U60 075          289
1998 19 64          B     SBROT                              X   4  2931  B O33              289
1999 19 65          BCE   HARMN,MAINX&19,D                   X   8  2935  B R65 020 D        289
2000 19 66          MCW   @B    @,MAINX&19                   X   7  2943  M H80 020          289
2001 19 67   BOUTS  CW    ZEROX                              X   4  2950  ) 188              289
2002 19 68          MCW   CHARCC,MAINX&74                   X   7  2954  M U61 075          289
2003 19 69          B     SBROTX                             X   4  2961  B O33              290
2004 19 70   HARMN  CS    LMAINX                             X   4  2965  / 086              290
2005 19 71          SW    1,100                              X   7  2969  , 001 100          290
2006 19 72          MCW   LIPUT&1,100                       X   7  2976  M 187 100          290
2007 19 73          B     CTAPEX                             X   4  2983  B W50              290
2008 19 74          NOP   TDFLB2                             X   4  2987  N B29              290
2009 19 75          C     MAINX&19,HEADR                     X   7  2991  C 020 Y91          290
2010 19 76          MCW   MAINX&7,PREVS                      X   7  2998  M 008 H72          291
2011 19 77          BE    SWITCH                             X   5  3005  B L01 S            291
2012 19 78          C     MAINX&7,@)00@                      X   7  3010  C 008 H83          291
2013 19 79          BU    LZFND                              X   5  3017  B ?26 /            291
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2014 19 80          SW    ZEROX                                      X   4  3022  , 188             291
2015 19 81    *
2016 19 82    *  RIGHT TO LEFT SCAN FOR LOZENGES
2017 19 83    *
2018 19 84    LZFND ZA    @690@,INDEX1&1                             X   7  3026  ? H86 090          291
2019 19 85    LOZSC BCE   LZCNT,MAINX&X1,)                          X   8  3033  B B38 0|1 )        292
2020 19 86    DEFND S     &10,INDEX1&1                               X   7  3041  S H66 090          292
2021 19 87          C     INDEX1,@15@                                X   7  3048  C 089 H88          292
2022 19 88          BU    LOZSC                                      X   5  3055  B ?33 /            292
2023 19 89          S     INDEX1&1                                   X   4  3060  S 090             292
2024 19 90    CLEANC B    SCANXX                                     X   4  3064  B M19             292
2025 19 91          CW    MAINX&20,MAINX&20&X1                       X   7  3068  ) 021 0S1         293
2026 19 92          C     INDEX1,@51@                                X   7  3075  C 089 H90          293
2027 19 93          BL    ENDCLN                                     X   5  3082  B A26 T           293
2028 19 94          C     MAINXX&20&X1,@  @                          X   7  3087  C 0S1 H58          293
2029 19 95          BU    CLEANC                                     X   5  3094  B ?64 /            293
2030 19 96          BCE   ENDCLN,MAINX&5,*                          X   8  3099  B A26 006 *        293
2031 19 97          SW    MAINX&20&X1                                X   4  3107  , 0S1             294
2032 19 98          MCW   BLANKS-4,MAINXX&71                         X   7  3111  M W12 072          294
2033 19 99          MCW   MAINXX&71                                  X   4  3118  M 072             294
2034 20 00          CW    MAINXX&20&X1                               X   4  3122  ) 0S1             294
2035 20 01    *
2036 20 02    *   RIGHT TO LEFT SCAN FOR LOZENGES  6  -  20
2037 20 03    *
2038 20 04    ENDCLN MCW  @015@,INDEX1                               X   7  3126  M H93 089          294
2039 20 05          SBR   ZONCH&3,UPENGL                             X   7  3133  H J07 A48         294
2040 20 06    ENGLOZ BCE  LOZENG,MAINX&X1,)                          X   8  3140  B |57 0|1 )       295
2041 20 07    UPENGL S    &10,INDEX1&1                               X   7  3148  S H66 090          295
2042 20 08          C     INDEX1,@04@                                X   7  3155  C 089 H95          295
2043 20 09          BU    ENGLOZ                                     X   5  3162  B A40 /            295
2044 20 10    OUTSD  SBR  ZONCH&3,DEFND                              X   7  3167  H J07 ?41         295
2045 20 11    SHIFTL NOP  PARTB,MAINX&10                             X   7  3174  N 466 011         296
2046 20 12          MCW   @N@,SHIFTL                                 X   7  3181  M H45 A74         296
2047 20 13          C     MAINX&18,WHOOPS                            X   7  3188  C 019 W05         296
2048 20 14          BE    MASKS                                      X   5  3195  B J44 S           296
2049 20 15          C     MAINX&19,INCLD                             X   7  3200  C 020 U59         296
2050 20 16          BE    MASKS                                      X   5  3207  B J44 S           296
2051 20 17          B     BOUTS                                      X   4  3212  B R50             297
2052 20 18    TDFLIB DCW  &KINGS                                     X   3  3218  U63               297
2053 20 19          DCW   @M%U1001R@                                X   8  3226                    297
2054 20 20    TDFLB2 DCW  &EOF1B                                     X   3  3229  |44               297
2055 20 21          DCW   @M%U1001R@                                X   8  3237                    297
2056 20 22    *
2057 20 23    *   PROCESS LOZENGED FIELD  21  -  72
2058 20 24    *
2059 20 25    LZCNT  BCE  DEFND,MAINX&1&X1,                          X   8  3238  B ?41 0|2          297
2060 20 26          SW    MAINX&X1,MAINX&3&X1                        X   7  3246  , 0|1 0|4          298
2061 20 27          BM    STSYM,MAINX&2&X1                           X   8  3253  V C56 0|3 K        298
2062 20 28          B     LABEL                                      X   4  3261  B /19             298
2063 20 29          MCW   INDEX3,SAVX3#3                             X   7  3265  M 099 H98          298
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2064 20 30           S     INDEX3,WAREA                               X   7  3272  S 099 W22          298
2065 20 31           MZ    BLANKS,WAREA                               X   7  3279  Y W16 W22          299
2066 20 32           MCW   @I99@,INDEX3                               X   7  3286  M I01 099          299
2067 20 33           S     WAREA,INDEX3                               X   7  3293  S W22 099          299
2068 20 34           MCW   @I@,INDEX3-2                              X   7  3300  M I02 097          299
2069 20 35           C     INDEX3,@I9F@                               X   7  3307  C 099 I05          299
2070 20 36           BL    SPTYP                                      X   5  3314  B C78 T            300
2071 20 37           MCW   MAINX&76&X3,MAINX&72                       X   7  3319  M 0G7 073          300
2072 20 38           SBR   MOVE3&6                                    X   4  3326  H C47             300
2073 20 39   LMN     CW    MAINX&3&X1                                 X   4  3330  ) 0|4             300
2074 20 40           MCW   SAVX3,INDEX3                               X   7  3334  M H98 099          300
2075 20 41   MOVE3   MCW   0&X3,0                                     X   7  3341  M 0?0 000          300
2076 20 42           CW    MAINX&X1                                   X   4  3348  ) 0|1             300
2077 20 43           B     DEFND                                      X   4  3352  B ?41             301
2078 20 44   STSYM   MCW   MAINX&68,MAINX&71                         X   7  3356  M 069 072          301
2079 20 45           MCW   SYMNM                                      X   4  3363  M W01             301
2080 20 46           CW    MAINX&X1,MAINX&3&X1                        X   7  3367  ) 0|1 0|4         301
2081 20 47           B     DEFND                                      X   4  3374  B ?41             301
2082 20 48   *
2083 20 49   *  SPECIAL PROCESSING OF ONE AND TWO CHARACTER OPERANDS
2084 20 50   *
2085 20 51   SPTYP   LCA   MAINX&72,OUTPT&72                         X   7  3378  L 073 I84          301
2086 20 52           CW    MAINX&X1,MAINX&3&X1                        X   7  3385  ) 0|1 0|4         302
2087 20 53           MCW   BLANKS-2,MAINX&71                         X   7  3392  M W14 072          302
2088 20 54           BCE   HOUSE,INDEX3,H                             X   8  3399  B D22 099 H        302
2089 20 55           MCW   OUTPT&72,MAINX&71                          X   7  3407  M I84 072          302
2090 20 56           SBR   MOVE3&6                                    X   4  3414  H C47             302
2091 20 57           B     SPOUT                                      X   4  3418  B D33             302
2092 20 58   HOUSE   MCW   OUTPT&72,MAINX&70                         X   7  3422  M I84 071          303
2093 20 59           SBR   MOVE3&6                                    X   4  3429  H C47             303
2094 20 60   SPOUT   CW    OUTPT&3&X1                                 X   4  3433  ) I/5             303
2095 20 61           B     LMN                                        X   4  3437  B C30             303
2096 20 62   DELET   BW    LBLMV,ZEROX                                X   8  3441  V D53 188 1        303
2097 20 63           B     HARMN                                      X   4  3449  B R65             303
2098 20 64   LBLMV   MCW   @M@,SHIFTL                                X   7  3453  M I06 A74          303
2099 20 65           CW    ZEROX                                      X   4  3460  ) 188             304
2100 20 66           B     HARMN                                      X   4  3464  B R65             304
2101 20 67   MLBLZ   MCW   SYMNM,MAINX&10                            X   7  3468  M W01 011          304
2102 20 68           B     OUTSD                                      X   4  3475  B A67             304
2103 20 69   *
2104 20 70   *  PULL IN CALLED SUBROUTINES AT LTORG, END OR EXECUTE CARDS
2105 20 71   *
2106 20 72   EXITC   SBR   CEXIT1&3                                   X   4  3479  H G45             304
2107 20 73   RWDEXT  RWD   1                                          X   5  3483  U %U1 R           304
2108 20 74   CWPRC   CW    NEWEST                                     X   4  3488  ) V98             304
2109 20 75   TPRD1   SW    100                                        X   4  3492  , 100             305
2110 20 76           MCW   LIPUT&1,100                                X   7  3496  M 187 100          305
2111 20 77           B     CTAPEX                                     X   4  3503  B W50             305
2112 20 78           NOP   TDFEXT                                     X   4  3507  N T44             305
2113 20 79           C     MAINX&19,HEADR                             X   7  3511  C 020 Y91          305
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2114 20 80          BU    TPRD1                                      X  5  3518  B D92 /            305
2115 20 81   SOLUT  C     MAINX&7,@999@                              X  7  3523  C 008 H75          305
2116 20 82          BE    EOF1A                                      X  5  3530  B F56 S            306
2117 20 83   OPPENT MCW   ADDCAL,INDEX1                             X  7  3535  M W08 089          306
2118 20 84   PRTNER BCE   TPRD1,INDEX1-2,Y                          X  8  3542  B D92 087 Y        306
2119 20 85          SW    MAINX&5                                    X  4  3550  , 006             306
2120 20 86          C     0&X1,MAINX&7                               X  7  3554  C 0|0 008          306
2121 20 87          SAR   INDEX1                                     X  4  3561  Q 089              306
2122 20 88          BU    PRTNER                                     X  5  3565  B E42 /            307
2123 20 89          BW    TPRD1,1&X1                                 X  8  3570  V D92 0|1 1        307
2124 20 90          CW    MAINX&5                                    X  4  3578  ) 006             307
2125 20 91          SW    1&X1                                       X  4  3582  , 0|1              307
2126 20 92          SW    NEWEST                                     X  4  3586  , V98              307
2127 20 93   COOKER B     CTAPEX                                     X  4  3590  B W50              307
2128 20 94          NOP   TDFEXT                                    X  4  3594  N T44              307
2129 20 95          C     MAINX&18,WHOOPS                            X  7  3598  C 019 W05          308
2130 20 96          BE    SUBSET                                     X  5  3605  B J19 S            308
2131 20 97          C     MAINXX&19,INCLD                            X  7  3610  C 020 U59          308
2132 20 98          BE    SUBSET                                     X  5  3617  B J19 S            308
2133 20 99          C     MAINX&19,HEADR                             X  7  3622  C 020 Y91          308
2134 21 00          BE    SOLUT                                      X  5  3629  B E23 S            308
2135 21 01          MCW   CHARCC,MAINX&74                           X  7  3634  M U61 075          309
2136 21 02          LCA   LOPUT&1,100                               X  7  3641  L I98 100          309
2137 21 03          B     SBROT                                      X  4  3648  B O33              309
2138 21 04          B     COOKER                                     X  4  3652  B E90              309
2139 21 05   EOF1A  MCW   ADDCAL,INDEX1                             X  7  3656  M W08 089          309
2140 21 06   COMBL  BCE   CEXIT,INDEX1-2,Y                          X  8  3663  B G26 087 Y        309
2141 21 07          C     0&X1,@   @                                 X  7  3671  C 0|0 H48          310
2142 21 08          SAR   INDEX1                                     X  4  3678  Q 089              310
2143 21 09          BE    CEXIT                                      X  5  3682  B G26 S            310
2144 21 10          BW    COMBL,1&X1                                 X  8  3687  V F63 0|1 1        310
2145 21 11          BW    RWDEXT,NEWEST                              X  8  3695  V D83 V98 1        310
2146 21 12   *
2147 21 13   *  CREATE COMMENTS CARD FOR UNKNOWN  SUBROUTINES
2148 21 14   *
2149 21 15   UNKNWN B     NOROT                                      X  4  3703  B T75              310
2150 21 16          SW    1&X1                                       X  4  3707  , 0|1              311
2151 21 17          MCW   3&X1,MAINX&10                             X  7  3711  M 0|3 011          311
2152 21 18          B     SBROT                                      X  4  3718  B O33              311
2153 21 19          B     COMBL                                      X  4  3722  B F63              311
2154 21 20   CEXIT  CS    CALLT                                      X  4  3726  / !73             311
2155 21 21          CS                                               X  1  3730  /                 311
2156 21 22          CW    100                                        X  4  3731  ) 100             311
2157 21 23          MCW   @999@,PREVS                               X  7  3735  M H75 H72          312
2158 21 24   CEXIT1 B     0                                          X  4  3742  B 000              312
2159 21 25   SBGRD  SBR   GRAND&3                                    X  4  3746  H G57              312
2160 21 26          S     INDEX1&1                                   X  4  3750  S 090              312
2161 21 27   GRAND  BW    0,0&X2                                     X  8  3754  V 000 0!0 1        312
2162 21 28          S     @10@,INDEX2&1                              X  7  3762  S I08 095          312
2163 21 29          A     @1@,INDEX1                                 X  7  3769  A H59 089          313
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2164 21 30          B     GRAND                                    X   4  3776  B G54              313
2165 21 31   CALLCD CS    LMAINX                                   X   4  3780  / 086              313
2166 21 32          B     CTAPE                                    X   4  3784  B W50              313
2167 21 33          NOP   TDFEXT                                   X   4  3788  N T44              313
2168 21 34          MCW   CHARCS,MAINX&74                         X   7  3792  M U60 075          313
2169 21 35          SW    1                                        X   4  3799  , 001              313
2170 21 36          B     THRU                                     X   4  3803  B N82              314
2171 21 37   IOCSAV DCW   #4                                       X   4  3810                     314
2172 21 38   CHAINX MCW   @R@,MAINX&74                            X   7  3811  M H67 075          314
2173 21 39          B     WHYYY                                    X   4  3818  B K97              314
2174 21 40   MIDLE  MCW   INDEX3,DECTB&X2                         X   7  3822  M 099 UR2          314
2175 21 41          B     LOWER                                    X   4  3829  B V46              314
2176 21 42   ABOVE  MCW   INDEX3,DECTB&X2                         X   7  3833  M 099 UR2          314
2177 21 43          B     BELOW                                    X   4  3840  B P94              315
2178 21 44          LTORG *                                        X          3844
                    DCW   @B@                                      X   1  3844           LIT    315
                          @N@                                      X   1  3845           LIT    315
                          @   @                                    X   3  3848           LIT    315
                          @7@                                      X   1  3849           LIT    315
                          @ @                                      X   1  3850           LIT    315
       1874  SAVXL2       #03                                      X   3  3853           AREA   315
                          @DCW@                                    X   3  3856           LIT    316
                          @  @                                     X   2  3858           LIT    316
                          @1@                                      X   1  3859           LIT    316
                          @52@                                     X   2  3861           LIT    316
                          @510@                                    X   3  3864           LIT    316
                          &10                                      X   2  3866           LIT    316
                          @R@                                      X   1  3867           LIT    316
                          @3@                                      X   1  3868           LIT    317
                          @,@                                      X   1  3869           LIT    317
       1978  PREVS        #03                                      X   3  3872           AREA   317
                          @999@                                    X   3  3875           LIT    317
       2000               @B    @                                  X   5  3880           LIT    317
                          @)00@                                    X   3  3883           LIT    317
                          @690@                                    X   3  3886           LIT    317
                          @15@                                     X   2  3888           LIT    318
                          @51@                                     X   2  3890           LIT    318
                          @015@                                    X   3  3893           LIT    318
                          @04@                                     X   2  3895           LIT    318
       2063  SAVX3        #03                                      X   3  3898           AREA   318
                          @I99@                                    X   3  3901           LIT    318
                          @I@                                      X   1  3902           LIT    318
                          @I9F@                                    X   3  3905           LIT    319
                          @M@                                      X   1  3906           LIT    319
                          @10@                                     X   2  3908           LIT    319
2179 21 45   *
2180 21 46   *  OUTPUT AREA
2181 21 47   *
2182 21 48          ORG   3912                                     X          3912
2183 21 49   OUTPT  DA    1X86,G                                   X      3912  3997               319
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

                    DCW   @}@                                        X   1  3998              GMARK  320
2184 21 50   LOPUT  EQU   *-1                                       X      3997
2185 21 51          EX                                             X            B 000              321
2186 21 52          END   START                                    X            / Z00 080          324
```

3 ERRORS

```
CLEAR STORAGE 1     ,008015,019026,030,034041,045,053,0570571026                                    1
CLEAR STORAGE 2     L068112,102106,113/101099/I99,027A070028)027B0010270B0261,001/001113I0          2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039              ,0010011040         3


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 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

 101  1 01   003    JOB   1401 AUTOCODER-PASS 3-TRANSLATOR-INITIAL  -VERSION 3
 102  1 02          CTL   630 1
 103  1 03   *
 104  1 04   *EQUATES
 105  1 05   *
 106  1 06   INTAPE EQU   %U6                                                      %U6
 107  1 07   OUTAPE EQU   %U4                                                      %U4
 108  1 08   SYSTAP EQU   %U1                                                      %U1
 109  1 09   INITAP EQU   %U0                                                      %U0
 110  1 10   XXXX   EQU   0000                                                    0000
 111  1 11   PRINT  EQU   200                                                     0200
 112  1 12   LIBRN  EQU   000                                                     0000
 113  1 13   *
 114  1 14   *TAPE REDUNDANCY ROUTINE
 115  1 15   *
 116  1 16          ORG   RTEND&1                                                  2210
 117  1 17   TPERR  SBR   XL3                                                 4   2210  H 099                4
 118  1 18          SBR   REDXT&3                                              4   2214  H K82                4
 119  1 19          MZ    &9,XL3                                               7   2218  Y M60 099            4
 120  1 20          MCW   4000-10&X3,TPINS&7          BRING IN INSTRUCTION     7   2225  M II0 K73            4
 121  1 21          MN    TPINS&3,BSP1&3               THAT CAUSED              7   2232  D K69 K49            4
 122  1 22          MCW   TPINS&7,INST2&7              REDUNDANCY               7   2239  M K73 L82            4
 123  1 23   BSP1   BSP   INITAP                      BACKSPACE TAPE           5   2246  U %U0 B              5
 124  1 24          BCE   WRTRD,TPINS&7,W             Q. WRITE REDUNDANCY      8   2251  B L55 K73 W          5
 125  1 25          MCW   &9,RDCT#1                   INITIALIZE COUNTER       7   2259  M M60 M61            5
 126  1 26   TPINS  RT    INITAP,XXXX                 RE-READ                  8   2266  M %U0 000 R          5
 127  1 27          BER   RDERR                       Q. REDUNDANT AGAIN       5   2274  B K83 L              5
 128  1 28   REDXT  B     XXXX                        EXIT                     4   2279  B 000                5
 129  1 29   RDERR  MN    TPINS&3,BSP2&3                                       7   2283  D K69 K93            6
 130  1 30   BSP2   BSP   INITAP                      BACKSPACE AGAIN          5   2290  U %U0 B              6
 131  1 31          S     &1,RDCT                     REDUCE COUNTER           7   2295  S M62 M61            6
 132  1 32          BWZ   TPINS,RDCT,B                Q. 10 SUCCESSIVE READS   8   2302  V K66 M61 B          6
 133  1 33          MN    TPINS&3,TPHLT&6                                      7   2310  D K69 L23            6
 134  1 34   TPHLT  H     XXXX,390                    HALT                     7   2317  . 000 390            7
 135  1 35          MCW   TPINS&7,*&8                                         7   2324  M K73 L38            7
 136  1 36          RT    INITAP,XXXX                 RE-READ                  8   2331  M %U0 000 R          7
 137  1 37          BSS   BSP1,E                      DETERMINE OPTION         5   2339  B K46 E              7
 138  1 38          H     XXXX,302                    HALT AGAIN               7   2344  . 000 302            7
 139  1 39          B     REDXT                       EXIT                     4   2351  B K79                7
 140  1 40   WRTRD  SKP   SYSTAP                      ERASE TAPE               5   2355  U %U1 E              8
 141  1 41          BCE   SBCTR,WRTCR-1,5             Q. FIFTY SKIPS           8   2360  B L92 M63 5          8
 142  1 42          A     &1,WRTCR#2                  INCREASE COUNTER         7   2368  A M62 M64            8
 143  1 43   INST2  WT    INITAP,XXXX                 RE-WRITE                 8   2375  M %U0 000 W          8
 144  1 44          BER   BSP1                        Q. REDUNDANT AGAIN       5   2383  B K46 L              8
 145  1 45          B     REDXT                                                4   2388  B K79                8
 146  1 46   SBCTR  S     WRTCR                       RESET COUNTER            4   2392  S M64                9
 147  1 47          MN    TPINS&3,*&7                                          7   2396  D K69 M09            9
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SEQ PG LIN  LABEL   OP     OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
148  1 48           H      XXXX,360                 HALT             7  2403  . 000 360          9
149  1 49           B      INST2                                     4  2410  B L75              9
150  1 50   *
151  1 51   * NOISE RECORD ROUTINE
152  1 52   *
153  1 53   NOISE   SBR    XL3                                       4  2414  H 099              9
154  1 54           SBR    NSXT&3                                    4  2418  H M52              9
155  1 55           MZ     &9,XL3                                    7  2422  Y M60 099          9
156  1 56   N2      BCE    4000-12&X3, XXXX,}       SCAN FOR GROUP MARK  8  2429  B IH8 000 }       10
157  1 57           CHAIN  12                                                                MACRO
158                 BCE                                              1  2437  B                GEN  10
159                 BCE                                              1  2438  B                GEN  10
160                 BCE                                              1  2439  B                GEN  10
161                 BCE                                              1  2440  B                GEN  10
162                 BCE                                              1  2441  B                GEN  10
163                 BCE                                              1  2442  B                GEN  10
164                 BCE                                              1  2443  B                GEN  11
165                 BCE                                              1  2444  B                GEN  11
166                 BCE                                              1  2445  B                GEN  11
167                 BCE                                              1  2446  B                GEN  11
168                 BCE                                              1  2447  B                GEN  11
169                 BCE                                              1  2448  B                GEN  11
170  1 58   NSXT    B      XXXX                                      4  2449  B 000              11
171  1 59   OBJCOR  DCW    @3@                      OBJECT CORE SIZE CODE  1  2453                   12
172  1 60   HIVAL   DCW    @  999@                  HIGHEST OBJECT ADDRESS 5  2458                   12
173  1 61   MANAM   DCW    @#@                      EQUALS # OR A          1  2459                   12
174  1 62           LTORG  *                                                      2460
                    DCW    &9                                                1  2460                LIT  12
       125  RDCT           #01                                               1  2461                AREA 12
                           &1                                                1  2462                LIT  12
       142  WRTCR          #02                                               2  2464                AREA 12
175  1 63   *
176  1 64   *BEGIN     OF MAIN LINE
177  1 65   *
178  1 66   BEGIN   RWD    INTAPE                   REWIND INPUT TAPE    5  2465  U %U6 R            13
179  1 67           RWD    5                        REWIND 5             5  2470  U %U5 R            13
180  1 68           CS     3999                     CLEAR INPUT AREA     4  2475  / I99              13
181  1 69           RTW    SYSTAP,001               READ LOWER HALF OF   8  2479  L %U1 001 R        13
182  1 70           NOP    0                         PASS 3              4  2487  N 000              13
183  1 71           BER    TPERR                                         5  2491  B K10 L            13
184  1 72           SW     GMK1,GMK2                INITIALIZE GROUP MARKS 7 2496  , I89 187          13
185  1 73           CW     SYSMK2                                        4  2503  ) ?03              14
186  1 74           CS     080                      CLEAR READ AREA      4  2507  / 080              14
187  1 75           SW     EQVADD                   INITIALIZE TO UNDEF  4  2511  , A69              14
188  1 76           RWD    OUTAPE                   RWD OUTPUT TAPE      5  2515  U %U4 R            14
189  1 77           MCW    &FREE&13,N2&6                                 7  2520  M R20 M35          14
190  1 78           MCW    @N@,N3                   CRIPPLE TEST FOR NOISE 7 2527 M R21 573         14
191  1 79           MCW    @N@,N4                                        7  2534  M R21 558          14
192  1 80           RT     5,FREE&1                 READ IN MACRO FACTOR 8  2541  M %U5 101 R        15
193  1 81           B      NOISE                     WHICH IS            4  2549  B M14              15
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
194  1 82           BER   TPERR                          PASSED ON FROM PASS 2     5  2553  B K10 L            15
195  1 83           RWD   5                              AND SAVE VALUE            5  2558  U %U5 R            15
196  1 84           MCW   FREE&3,JOBLBL#3                                         7  2563  M 103 R24          15
197  1 85           ZA    @101@,ALTRNO                   RESET ALTER NUMBER        7  2570  ? R27 184          15
198  1 86   *
199  1 87   * PROCESS JOB CARD
200  1 88   *
201  1 89           B     GET                            GET FIRST RECORD          4  2577  B 524              16
202  1 90           BCE   GENJOB,FREE&6,*                Q. COMMENTS CARD          8  2581  B Q53 106 *        16
203  1 91           C     FREE&18,@JOB@                  Q. JOB CARD               7  2589  C 118 R30          16
204  1 92           BU    GENJOB                                                   5  2596  B Q53 /            16
205  1 93   CODJOB  MCW   JOBLBL,FREE&8                  PICKUP FACTOR             7  2601  M R24 108          16
206  1 94           WT    OUTAPE,FREE&1                  PUT JOB CARD              8  2608  M %U4 101 W        16
207  1 95           NOP   0                                                        4  2616  N 000              17
208  1 96           BER   TPERR                                                    5  2620  B K10 L            17
209  1 97           A     &1,ALTRNO                                                7  2625  A R31 184          17
210  1 98           B     GET                            GET NEXT RECORD           4  2632  B 524              17
211  1 99           MCW   @B@,N3                        RESET NOISE ROUTINE       7  2636  M R32 573          17
212  2 00           MCW   @M@,N4                                                   7  2643  M R33 558          17
213  2 01   *
214  2 02   *PROCESS CONTROL CARD
215  2 03   *
216  2 04           C     FREE&18,@CTL@                  Q. CONTROL CARD           7  2650  C 118 R36          18
217  2 05           BU    CHNAD                                                    5  2657  B Q85 /            18
218  2 06           CS    0                                                        4  2662  / 000              18
219  2 07           SBR   CLEAR&3                                                  4  2666  H O85              18
220  2 08           SBR   SVSZ#3                                                   4  2670  H R39              18
221  2 09           BWZ   PROSZ,CLEAR&3,2                                         8  2674  V P02 O85 2        18
222  2 10   CLEAR   CS    15999                                                    4  2682  / I9I              18
223  2 11           SBR   CLEAR&3                        CLEAR ABOVE 4K            4  2686  H O85              19
224  2 12           C     CLEAR&3,@I99@                  Q. END OF CLEARING        7  2690  C O85 R42          19
225  2 13           BU    CLEAR                                                    5  2697  B O82 /            19
226  2 14   PROSZ   MCW   @6@,PHOLD#1                                            7  2702  M R43 R44          19
227  2 15           BWZ   CSZ,SVSZ,B                                             8  2709  V P54 R39 B        19
228  2 16           MCW   @5@,PHOLD                                              7  2717  M R45 R44          19
229  2 17           BWZ   CSZ,SVSZ,K                                             8  2724  V P54 R39 K        20
230  2 18           MCW   @4@,PHOLD                                              7  2732  M R46 R44          20
231  2 19           BWZ   CSZ,SVSZ,S                                             8  2739  V P54 R39 S        20
232  2 20           MCW   @3@,PHOLD                                              7  2747  M R47 R44          20
233  2 21   CSZ     C     FREE&21,PHOLD                                            7  2754  C 121 R44          20
234  2 22           BE    INOBJ                                                    5  2761  B P97 S            21
235  2 23           MESSG @INCORRECT PROCESSOR MACHINE SIZE SPECIFIED@,42                                MACRO
236    02           CS    332                                                      4  2766  / 332       GEN    21
237    03           CS                                                             1  2770  /           GEN    21
238    04           MCW   @INCORRECT PROCESSOR MACHINE SIZE SPECIFIED@,42&200      7  2771  M R89 242   GEN    21
239    05           W                                                              1  2778  2           GEN    21
240    07           BCV   *&5                                                      5  2779  B P88 @     GEN    21
241    08           B     *&3                                                      4  2784  B P90       GEN    21
242    09           CC    1                                                        2  2788  F 1         GEN    22
243  2 24           MCW   PHOLD,FREE&21                                           7  2790  M R44 121          22
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
244  2 25   INOBJ   MCW   FREE&22,OBJCOR                SAVE OBJECT MACH CODE      7  2797  M 122 M53          22
245  2 26           ZA    OBJCOR,XL1                                              7  2804  ? M53 089          22
246  2 27           S     &30,XL1&1                                               7  2811  S R91 090          22
247  2 28           A     XL1                           CODE -HIVAL-              4  2818  A 089              22
248  2 29           MCW   OBJTBL&X1,HIVAL-3                                      7  2822  M R/1 M55          23
249  2 30           C     FREE&22,@3@                   Q. OBJECT CORE GT 4K      7  2829  C 122 R47          23
250  2 31           BL    GETMN                                                   5  2836  B 419 T            23
251  2 32           BCE   SETHI,FREE&24,1               Q. MA HARDWARE            8  2841  B Q99 124 1        23
252  2 33           B     IS4K                                                    4  2849  B Q92              23
253  2 34   GENJOB  BSP   INTAPE                                                  5  2853  U %U6 B            23
254  2 35           MCW   FREE&74,FREE&73                                         7  2858  M 174 173          24
255  2 36           MCW   @JOB  @,FREE&20               GENERATE JOB CARD         7  2865  M R96 120          24
256  2 37           MCW                                                           1  2872  M                  24
257  2 38           MCW   FREE&74,FREE&15               BLANK AREA                7  2873  M 174 115          24
258  2 39           MCW                                                           1  2880  M                  24
259  2 40           B     CODJOB                                                  4  2881  B O01              24
260  2 41   CHNAD   MCW   &SUBXL,INTXT&3                INITIALIZE EXIT           7  2885  M R99 463          24
261  2 42   IS4K    MCW   @A@,MANAM                                              7  2892  M ?00 M59          25
262  2 43   SETHI   MCW   @03@,HIVAL-3                                           7  2899  M ?02 M55          25
263  2 44           B     GETMN                                                   4  2906  B 419              25
264  2 45   OBJTBL  DCW   @03@                                                    2  2911                     25
265  2 46           DCW   @07@                                                    2  2913                     25
266  2 47           DCW   @11@                                                    2  2915                     25
267  2 48           DCW   @15@                                                    2  2917                     25
268  2 49           LTORG *                                                                2918
       189          DCW   &FREE&13                                               3  2920  113          ADCON  26
                          @N@                                                   1  2921                LIT    26
       196  JOBLBL         #03                                                   3  2924                AREA   26
                          @101@                                                 3  2927                LIT    26
                          @JOB@                                                 3  2930                LIT    26
                          &1                                                    1  2931                LIT    26
                          @B@                                                   1  2932                LIT    26
                          @M@                                                   1  2933                LIT    27
                          @CTL@                                                 3  2936                LIT    27
       220  SVSZ           #03                                                   3  2939                AREA   27
                          @I99@                                                 3  2942                LIT    27
                          @6@                                                   1  2943                LIT    27
       226  PHOLD          #01                                                   1  2944                AREA   27
                          @5@                                                   1  2945                LIT    27
                          @4@                                                   1  2946                LIT    28
                          @3@                                                   1  2947                LIT    28
       238                @INCORRECT PROCESSOR MACHINE SIZE SPECIFIED@          42  2989                LIT    30
                          &30                                                   2  2991                LIT    30
       255                @JOB  @                                               5  2996                LIT    30
       260                &SUBXL                                                3  2999  634           ADCON  30
                          @A@                                                   1  3000                LIT    30
                          @03@                                                  2  3002                LIT    31
269  2 50   SYSMK2  DCW   @}@                           SYSTEM GROUP MARK         1  3003                       31
270  2 51           XFR   000                                                                B 000              32
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

271  2 52          JOB   1401 AUTOCODER-PASS 3 LEFT MAIN LINE      -VERSION 3
272  2 53   *
273  2 54   *INITIALIZATION OF INDEX LOCATIONS
274  2 55   *
275  2 56          XINIT XL1,XL2,XL3                                                                  MACRO
276    01   XL1    EQU   089                                                      0089               GEN
277    02   089    DCW   000                                                    3 0089               GEN     35
278    04   091    DC    00                                                     2 0091               GEN     35
279    05   XL2    EQU   094                                                      0094               GEN
280    06   094    DCW   000                                                    3 0094               GEN     35
281    08   096    DC    00                                                     2 0096               GEN     35
282    09   XL3    EQU   099                                                      0099               GEN
283    10   099    DCW   000                                                    3 0099               GEN     35
284    12   100    DC    0                                                      1 0100               GEN     35
285  2 57   *
286  2 58   *FREE FORM INPUT AREA
287  2 59   *
288  2 60          ORG   101                                                              0101
289  2 61   FREE   EQU   100                                                      0100
290  2 62          DA    1X86                                                     0101   0186                35
291  2 63                1,1                                                      0101               FIELD   35
292  2 64                19,19                                                    0119               FIELD   35
293  2 65                16,16                                                    0116               FIELD   35
294  2 66                6,6                                                      0106               FIELD   36
295  2 67                21,21                                                    0121               FIELD   36
296  2 68   ALTRNO       81,84                                                    0184               FIELD   36
297  2 69                85,85                                                    0185               FIELD   36
298  2 70   GMK2   DC    @}@                                                    1 0187                       37
299  2 71   *
300  2 72   *FIXED FORM INPUT AREA
301  2 73   *
302  2 74          ORG   333                                                              0333
303  2 75   INPUT  EQU   *                                                        0332
304  2 76          DA    1X86                                                     0333   0418                37
305  2 77                40,40                                                    0372               FIELD   37
306  2 78                17,17                                                    0349               FIELD   37
307  2 79                28,28                                                    0360               FIELD   37
308  2 80                39,39                                                    0371               FIELD   38
309  2 81                76,76                                                    0408               FIELD   38
310  2 82   *
311  2 83   * GET UPPER HALF OF PASS 3
312  2 84   *
313  2 85   GETMN  RTW   SYSTAP,BEGIN                                          8 0419  L %U1 M65 R          38
314  2 86          NOP   0                                                      4 0427  N 000                38
315  2 87          BER   TPERR                                                  5 0431  B K10 L              38
316  2 88          MCW   MANAM,MASYM-3                                          7 0436  M M59 B93            38
317  2 89          RTW   SYSTAP,OVL2                                            8 0443  L %U1 626 R          38
318  2 90          NOP   0                                                      4 0451  N 000                39
319  2 91          BER   TPERR                                                  5 0455  B K10 L              39
320  2 92   INTXT  B     NUREC                                                  4 0460  B 626                39
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
321  2 93   *
322  2 94   * GET FIXED FORM OVERLAY
323  2 95   *
324  2 96   GTFIX  RTW   SYSTAP,OVL2                                 8  0464  L %U1 626 R         39
325  2 97          NOP   0                                           4  0472  N 000               39
326  2 98          BER   TPERR                                       5  0476  B K10 L             39
327  2 99          BSP   SYSTAP                                     5  0481  U %U1 B             39
328  3 00          BSP   SYSTAP                                     5  0486  U %U1 B             40
329  3 01          BW    PROFIX,FREESW                              8  0491  V 661 H09 1         40
330  3 02          B     RSTMOD                                     4  0499  B 638               40
331  3 03   *
332  3 04   * GET FREE FORM OVERLAY
333  3 05   *
334  3 06   GTFRE  RTW   SYSTAP,OVL2                                8  0503  L %U1 626 R         40
335  3 07          NOP   0                                           4  0511  N 000               40
336  3 08          BER   TPERR                                       5  0515  B K10 L             40
337  3 09          B     PSTNU                                      4  0520  B 630               40
338  3 10   *
339  3 11   *GET ROUTINE
340  3 12   *
341  3 13   GET    SBR   GETXT&3                                     4  0524  H 553               41
342  3 14          B     RDTAP                                      4  0528  B 554               41
343  3 15          MCW   INAREA&79,FREE&80                          7  0532  M I82 180           41
344  3 16          CHAIN 4                                                                 MACRO
345                MCW                                              1  0539  M                GEN  41
346                MCW                                              1  0540  M                GEN  41
347                MCW                                              1  0541  M                GEN  41
348                MCW                                              1  0542  M                GEN  41
349  3 17          MCW   INAREA&85,FREE&86                          7  0543  M I88 186           42
350  3 18   GETXT  B     XXXX                                       4  0550  B 000               42
351  3 19   RDTAP  SBR   RDXT&3                  READ TAPE           4  0554  H 585               42
352  3 20   N4     MCW   &INAREA&12,N2&6                            7  0558  M R43 M35           42
353  3 21          RT    INTAPE,INAREA                              8  0565  M %U6 I03 R         42
354  3 22   N3     B     NOISE                  CHECK FOR NOISE     4  0573  B M14               42
355  3 23          BER   TPERR                                       5  0577  B K10 L             42
356  3 24   RDXT   B     XXXX                                       4  0582  B 000               43
357  3 25   *
358  3 26   *PUT ROUTINE
359  3 27   *
360  3 28   PUT    SBR   PUTXT&3                                     4  0586  H 625               43
361  3 29          CW    FREE&21                                    4  0590  ) 121               43
362  3 30          WT    OUTAPE,FREE&1                              8  0594  M %U4 101 W         43
363  3 31          NOP   0                                           4  0602  N 000               43
364  3 32          BER   TPERR                                       5  0606  B K10 L             43
365  3 33          SW    FREE&21                                    4  0611  , 121               43
366  3 34          A     &1,ALTRNO              INCREASE ALTER NUMBER 7  0615  A R44 184           44
367  3 35   PUTXT  B     XXXX                                       4  0622  B 000               44
368  3 36   OVL2   DCW   0                                          1  0626                      44
369  3 37          DCW   @}@                    SYSTEM GROUP MARK   1  0627                      44
370  3 38          XFR   0                                                  B 000               45
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SEQ PG LIN LABEL OP OPERANDS SFX CT LOCN INSTRUCTION TYPE CARD

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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
371  3 39          JOB   1401 AUTOCODER-PASS 3 PROCESS FREE FORM   -VERSION 3
372  3 40   *
373  3 41   *BEGINNING OF NEW FREE FORM RECORD ANALYSIS
374  3 42   *
375  3 43          ORG   OVL2                                                    0626
376  3 44   NUREC  B     PUT                                          4  0626  B 586                48
377  3 45   PSTNU  B     GET                                          4  0630  B 524                48
378  3 46   SUBXL  SW    MODESW                                       4  0634  , ?02                48
379  3 47          CW    FREESW                                       4  0638  ) H09                48
380  3 48          BCE   NUREC,FREE&6,*                              8  0642  B 626 106 *          48
381  3 49          BCE   REG,FREE&75,                                 8  0650  B 991 175            48
382  3 50          BCE   REG,FREE&75,L                               8  0658  B 991 175 L          49
383  3 51          BCE   NUREC,FREE&75,S                            8  0666  B 626 175 S          49
384  3 52          BCE   NUREC,FREE&75,Z                            8  0674  B 626 175 Z          49
385  3 53          BCE   NUREC,FREE&85,R                            8  0682  B 626 185 R          49
386  3 54          C     FREE&18,@CHA@                                7  0690  C 118 R47            49
387  3 55          BCE   CKCHN,FREE&75,C                            8  0697  B 722 175 C          50
388  3 56          BCE   CKCHN,FREE&75,Y                            8  0705  B 722 175 Y          50
389  3 57          BU    NUREC                                        5  0713  B 626 /              50
390  3 58          B     PRCHN                                        4  0718  B 727                50
391  3 59   CKCHN  BU    REG                                          5  0722  B 991 /              50
392  3 60   PRCHN  ZA    FREE&22,WAREA2                               7  0727  ? 122 A14            50
393  3 61          BCE   *&5,WAREA2,&                                8  0734  B 746 A14 &          51
394  3 62          B     *&8                                          4  0742  B 753                51
395  3 63          ZA    WAREA2-1,WAREA2                              7  0746  ? A13 A14            51
396  3 64          BCE   *&5,FREE&75,C                               8  0753  B 765 175 C          51
397  3 65          B     *&8                                          4  0761  B 772                51
398  3 66          MCW   @S@,FREE&75                                  7  0765  M R48 175            51
399  3 67          BCE   *&5,FREE&75,Y                               8  0772  B 784 175 Y          52
400  3 68          B     *&8                                          4  0780  B 791                52
401  3 69          MCW   @Z@,FREE&75                                  7  0784  M R49 175            52
402  3 70          B     PUT                                          4  0791  B 586                52
403  3 71          C     WAREA2,&00                ACCOUNT FOR CHAIN 00  7  0795  C A14 R51          52
404  3 72          BL    *&5                                          5  0802  B 811 T              52
405  3 73          B     PSTNU                                        4  0807  B 630                52
406  3 74          MCW   FREE&75,HLDCD#1                              7  0811  M 175 R52            53
407  3 75          MCW   @C@,FREE&75                                  7  0818  M R53 175            53
408  3 76          BCE   BLNKX,HLDCD,R                               8  0825  B 848 R52 R          53
409  3 77          BCE   BLNKX,HLDCD,S                               8  0833  B 848 R52 S          53
410  3 78          MCW   @Y@,FREE&75                                  7  0841  M R54 175            53
411  3 79   BLNKX  MCW   BLNK2,FREE&74                               7  0848  M A55 174            54
412  3 80          MCW   FREE&74                                      4  0855  M 174                54
413  3 81          MCW   SAVOP                                        4  0859  M R88                54
414  3 82          MCW                                              1  0863  M                    54
415  3 83          MCW                                              1  0864  M                    54
416  3 84          MCW   FREE&74,FREE&5            BLANK PAGE/LINE    7  0865  M 174 105            54
417  3 85   CHNLP  B     PUT                                          4  0872  B 586                54
418  3 86          MCW   FREE&74,FREE&11           BLANK LABEL FIELD  7  0876  M 174 111            55
419  3 87          S     &1,WAREA2                                    7  0883  S R44 A14            55
420  3 88          C     WAREA2,&00                                   7  0890  C A14 R51            55
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

421  3 89          BL    CHNLP                                                  5  0897  B 872 T             55
422  3 90          B     PSTNU                                                  4  0902  B 630               55
423  3 91   GENPS  MCW   @&1 @,FREE&15                                          7  0906  M R57 115           55
424  3 92          B     PUT                                                    4  0913  B 586               56
425  3 93          MCW   FREE&73,FREE&72              TO HIGHEST ADDRESS OF     7  0917  M 173 172           56
426  3 94          MCW   @C@,FREE&75                  OBJECT CORE               7  0924  M R53 175           56
427  3 95          MCW   HIVAL,FREE&25                                          7  0931  M M58 125           56
428  3 96          MCW   @EQU  @                                                4  0938  M R62               56
429  3 97          MCW                                                          1  0942  M                   56
430  3 98          MCW   @$HIVAL &P @                                           4  0943  M R72               56
431  3 99          MCW   FREE&73                                                4  0947  M 173               57
432  4 00          MCW   &NUREC,GENPS&3                                         7  0951  M R75 909           57
433  4 01          MCW   @B@,ISHIV                                              7  0958  M R76 969           57
434  4 02          B     NUREC                                                  4  0965  B 626               57
435  4 03   ISHIV  NOP   PSTNU                                                  4  0969  N 630               57
436  4 04          MCW   HIVAL,FREE&25                SET NEW HIGHEST VALUE      7  0973  M M58 125           57
437  4 05          MCW   @B@,PSSW2                                              7  0980  M R76 |37           58
438  4 06          B     TSTRE                                                  4  0987  B |53               58
439  4 07   REG    S     XL3&1                                                  4  0991  S 100               58
440  4 08          S                                                            1  0995  S                   58
441  4 09          S                                                            1  0996  S                   58
442  4 10          C     FREE&18,@   @                                          7  0997  C 118 R79           58
443  4 11          BU    SVUP3                                                  5  1004  B |17 /             58
444  4 12          BCE   TSTRE,FREE&19,                                         8  1009  B |53 119           59
445  4 13   SVUP3  MCW   FREE&20,SAVOP#9                                        7  1017  M 120 R88           59
446  4 14          MCW                                                          1  1024  M                   59
447  4 15          C     FREE&11, @$HIVAL@            Q. HIVAL EQUATE PRESNT    7  1025  C 111 R94           59
448  4 16          BE    ISHIV                                                  5  1032  B 969 S             59
449  4 17   PSSW2  NOP   TSTRE                                                  4  1037  N |53               59
450  4 18          C     FREE&10,@$P   @              Q. ARITH MACRO PRESENT    7  1041  C 110 R99           59
451  4 19          BE    GENPS                                                  5  1048  B 906 S             60
452  4 20   TSTRE  BCE   ISREA,FREE&85,R                                        8  1053  B |96 185 R         60
453  4 21          B     TLUOP                        LOOKUP MNEMONIC           4  1061  B M65               60
454  4 22   STFUN  MCW   FREE&15,SAVOP-5                                        7  1065  M 115 R83           60
455  4 23          BW    NUREC,EQVADD                 Q. INSTRUCTION            8  1072  V 626 A69 1         60
456  4 24          C     FREE&15,@3 @                                           7  1080  C 115 ?01           60
457  4 25          BE    EOJ                                                    5  1087  B Q75 S             61
458  4 26          B     NUREC                                                  4  1092  B 626               61
459  4 27   ISREA  SW    FREE&12                                                4  1096  , 112               61
460  4 28          LCA   FREE&15,EQVADD                                         7  1100  L 115 A69           61
461  4 29          CW    FREE&12                                                4  1107  ) 112               61
462  4 30          BCE   TYPCL,FREE&15,&                                        8  1111  B /26 115 &         61
463  4 31          CHAIN 3                                                                        MACRO
464                BCE                                                          1  1119  B           GEN     61
465                BCE                                                          1  1120  B           GEN     62
466                BCE                                                          1  1121  B           GEN     62
467  4 32          B     STFUN                                                  4  1122  B |65               62
468  4 33   TYPCL  SW    EQVADD-2                                               4  1126  , A67               62
469  4 34          BCE   STFUN,FREE&12,&                                        8  1130  B |65 112 &         62
470  4 35          SW    EQVADD-1                                               4  1138  , A68               62
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
471  4 36          BCE   STFUN,FREE&13,&                           8  1142  B |65 113 &         62
472  4 37          SW    EQVADD                                    4  1150  , A69               63
473  4 38          B     STFUN                                     4  1154  B |65               63
474  4 39          DCW   0                                         1  1158                      63
475  4 40          DCW   @}@                     SYSTEM GROUP MARK 1  1159                      63
476  4 41          XFR   0                                                 B 000               64
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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
477  4 42          JOB   1401 AUTOCODER-PASS 3 PROCESS FIX FORM -VERSION 3
478  4 43          ORG   OVL2                                                  0626
479  4 44   *
480  4 45   *BEGINNING OF NEW FIXED FORM RECORD ANALYSIS
481  4 46   *
482  4 47   ENTSPS B     PUT                         PUT LAST RECORD          4  0626  B 586              67
483  4 48          BW    GTFRE,FREESW                Q. FREE DONE IN FIXED    8  0630  V 503 H09 1        67
484  4 49   RSTMOD CW    MODESW#1,ABSW               RESET SWITCHES           7  0638  ) ?02 A10          67
485  4 50          B     RDTAP                       GET A RECORD             4  0645  B 554              67
486  4 51          MCW   INAREA&79,INPUT&80          MOVE TO FIXED FORM       7  0649  M I82 412          67
487  4 52          CHAIN 5                                                                MACRO
488                MCW                                                        1  0656  M                  GEN  67
489                MCW                                                        1  0657  M                  GEN  67
490                MCW                                                        1  0658  M                  GEN  68
491                MCW                                                        1  0659  M                  GEN  68
492                MCW                                                        1  0660  M                  GEN  68
493  4 53   PROFIX MCW   INPUT&80,FREE&80            MOVE IDENTIFICATION      7  0661  M 412 180          68
494  4 54          MCW   BLANK,FREE&75               SET OPERAND PORTION      7  0668  M A54 175          68
495  4 55          MCW   FREE&75                      OF -FREE- TO BLANKS      4  0675  M 175              68
496  4 56          MCW   FREE&75,FREE&20             SET BALANCE TO BLANK     7  0679  M 175 120          68
497  4 57          MCW                                                        1  0686  M                  69
498  4 58          MCW                                                        1  0687  M                  69
499  4 59          MCW   INPUT&82,FREE&86            BLANK CODE POSITIONS     7  0688  M 414 186          69
500  4 60          MCW   INPUT&13,FREE&11            MOVE LABEL AND PG/LINE   7  0695  M 345 111          69
501  4 61          MCW   INPUT&5                     NO TO -FREE-             4  0702  M 337              69
502  4 62          BCE   COMCRD,INPUT&8,*            Q. COMMENTS CARD         8  0706  B Y71 340 *        69
503  4 63          BCE   LBERR,FREE&11,,             CHECK FOR INVALID        8  0714  B 778 111 ,        69
504  4 64          CHAIN 4                           CHARACTERS IN LABELS                                 MACRO
505                BCE                                                        1  0722  B                  GEN  70
506                BCE                                                        1  0723  B                  GEN  70
507                BCE                                                        1  0724  B                  GEN  70
508                BCE                                                        1  0725  B                  GEN  70
509  4 65          BCE   LBERR,FREE&10,-                                      8  0726  B 778 110 -        70
510  4 66          CHAIN 4                                                                MACRO
511                BCE                                                        1  0734  B                  GEN  70
512                BCE                                                        1  0735  B                  GEN  70
513                BCE                                                        1  0736  B                  GEN  71
514                BCE                                                        1  0737  B                  GEN  71
515  4 67          BCE   LBERR,FREE&10,#                                      8  0738  B 778 110 #        71
516  4 68          CHAIN 4                                                                MACRO
517                BCE                                                        1  0746  B                  GEN  71
518                BCE                                                        1  0747  B                  GEN  71
519                BCE                                                        1  0748  B                  GEN  71
520                BCE                                                        1  0749  B                  GEN  71
521  4 69          BCE   LBERR,FREE&10,&                                      8  0750  B 778 110 &        72
522  4 70          CHAIN 4                                                                MACRO
523                BCE                                                        1  0758  B                  GEN  72
524                BCE                                                        1  0759  B                  GEN  72
525                BCE                                                        1  0760  B                  GEN  72
526                BCE                                                        1  0761  B                  GEN  72
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
527  4 71           BCE   LBERR,FREE&10,|                            8  0762  B 778 110 |        72
528  4 72           CHAIN 4                                                                MACRO
529                 BCE                                              1  0770  B           GEN     72
530                 BCE                                              1  0771  B           GEN     73
531                 BCE                                              1  0772  B           GEN     73
532                 BCE                                              1  0773  B           GEN     73
533  4 73           B     BCK1                                       4  0774  B 798               73
534  4 74   LBERR   CS    332                                        4  0778  / 332               73
535  4 75           CS                                               1  0782  /                   73
536  4 76           MCW   @ILLEGAL LABEL - SEQUENCE NUMBER@,231      7  0783  M ?33 231           73
537  4 77           MCS   ALTRNO,236                                 7  0790  Z 184 236           74
538  4 78           W                                                1  0797  2                   74
539  4 79   BCK1    C     INPUT&15,BLNK2          Q. ACTUAL OP CODE  7  0798  C 347 A55           74
540  4 80           BE    ABSFIX                   PRESENT IN FIXED FORM  5  0805  B S70 S          74
541  4 81           MCW   BLNK2,SAVOP                                 7  0810  M A55 R88           74
542  4 82           MCW   INPUT&16                                   4  0817  M 348               74
543  4 83           MCW   INPUT&16,FREE&18         MOVE MNEMONIC TO FREE  7  0821  M 348 118        74
544  4 84   TLUFIX  S     XL3&1                    RESET INDEX LOCATIONS  4  0828  S 100            75
545  4 85           S                               TO ZERO          1  0832  S                   75
546  4 86           S                                                1  0833  S                   75
547  4 87           B     TLUOP                    LOOKUP MNEMONIC    4  0834  B M65               75
548  4 88           BW    FIXINS,EQVADD            Q. INSTRUCTION     8  0838  V 854 A69 1         75
549  4 89           BCE   FOUND,EQVADD,            Q. CONTROL OP      8  0846  B T40 A69           75
550  4 90   *
551  4 91   * PROCESS INSTRUCTION
552  4 92   *
553  4 93   FIXINS  BCE   LKNOP,INPUT&17,          Q. A OPERAND       8  0854  B 974 349           75
554  4 94           BCE   FIXALF,INPUT&17,@        Q. ALPHA LITERAL   8  0862  B /84 349 @         76
555  4 95           B     SCAN                     SCAN A OPERAND     4  0870  B Z09               76
556  4 96   CKB     BCE   CKMOD,INPUT&28,          Q. B OPERAND       8  0874  B 950 360           76
557  4 97           A     &1,XL2                   MOVE COMMA TO FREE 7  0882  A R44 094           76
558  4 98           MCW   @,@,FREE&21&X2            TO SEPARATE OPERANDS  7  0889  M ?34 1K1        76
559  4 99           A     &1,XL2                                     7  0896  A R44 094           77
560  5 00           MCW   @011@,XL1                                  7  0903  M ?37 089           77
561  5 01           BCE   FIXALF,INPUT&28,@        Q. ALPHA  LITERAL  8  0910  B /84 360 @         77
562  5 02           B     SCAN                     SCAN B OPERAND     4  0918  B Z09               77
563  5 03   CKOP    C     INPUT&16,@B  @           Q. BRANCH INSTRUCTION  7  0922  C 348 ?40        77
564  5 04           BE    MAKBCE                                     5  0929  B |40 S             77
565  5 05           C     INPUT&16,@  B@           Q. ACTUAL BRANCH INST  7  0934  C 348 ?43        78
566  5 06           BE    MOVMOD                                     5  0941  B |18 S             78
567  5 07           B     LKNOP                                      4  0946  B 974               78
568  5 08   CKMOD   C     INPUT&16,@B  @           Q. BRANCH INSTRUCTION  7  0950  C 348 ?40        78
569  5 09           BE    ALTROP                                     5  0957  B |51 S             78
570  5 10           C     INPUT&16,@  B@           Q. ACTUAL BRANCH INST  7  0962  C 348 ?43        78
571  5 11           BE    ALTROP                                     5  0969  B |51 S             79
572  5 12   LKNOP   C     INPUT&16,@NOP@           Q. NOP INSTRUCTION 7  0974  C 348 ?46           79
573  5 13           BE    CKNOP                                      5  0981  B /46 S             79
574  5 14           BW    PICKUP,ABSW              Q. ACTUAL OP CODE  8  0986  V |29 A10 1         79
575  5 15           BCE   PICKUP,INPUT&39,         Q. D CHARACTER     8  0994  B |29 371           79
576  5 16   ISMOD   BCE   MOVMOD,FREE&15,          Q. ILLEGAL OP      8  1002  B |18 115           80
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SEQ PG LIN  LABEL   OP    OPERANDS                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
577  5 17           BWZ   IOTYP,FREE&15,2             Q. I/O INSTRUCTION     8  1010  V /54 115 2       80
578  5 18   MOVMOD  MCW   INPUT&39,FREE&23&X2         MOVE D CHARACTER TO    7  1018  M 371 1K3         80
579  5 19           MCW   @,@                          FREE AREA              4  1025  M ?34             80
580  5 20   PICKUP  MCW   INPUT&55,FREE&72            PICKUP COMMENTS        7  1029  M 387 172         80
581  5 21           B     ENDFIX                                             4  1036  B 626             80
582  5 22   MAKBCE  MCW   @BCE@,FREE&18              MOVE -BCE- MNEMONIC    7  1040  M ?49 118         81
583  5 23           B     ISMOD                        TO OPERATION FIELD    4  1047  B |02             81
584  5 24   ALTROP  BCE   PICKUP,INPUT&39,           Q. D CHARACTER, I.E.,  8  1051  B |29 371         81
585  5 25           MCW   @BIN@,FREE&18              UNCONDITIONAL BRANCH   7  1059  M ?52 118         81
586  5 26           MCW   @& B@,FREE&15              SET FIVE CHAR BRANCH   7  1066  M ?55 115         81
587  5 27           S     XL1&1                                              4  1073  S 090             81
588  5 28           MCW   BLNK2,FREE&20                                      7  1077  M A55 120         82
589  5 29   TLUBIN  C     BINTBL&X1,INPUT&39          SEARCH 5-CHARACTER     7  1084  C H/4 371         82
590  5 30           BE    BINFND                       BRANCH TABLE FOR      5  1091  B /15 S           82
591  5 31           BCE   MOVMOD,BINTBL&5&X1,         APPROPRIATE UNIQUE     8  1096  B |18 H/9         82
592  5 32           A     &5,XL1                       MNEMONIC. IF NOT       7  1104  A ?56 089         82
593  5 33           B     TLUBIN                       PRESENT LEAVE          4  1111  B |84             82
594  5 34   BINFND  MCW   BINTBL-1&X1,FREE&19         MNEMONIC -BIN-         7  1115  M H/3 119         83
595  5 35           MCW                                                      1  1122  M                 83
596  5 36           C     FREE&18,@BSS@               Q. BRANCH SENSE SWITCH 7  1123  C 118 ?59         83
597  5 37           BE    MOVMOD                                             5  1130  B |18 S           83
598  5 38           MCW   INPUT&39,FREE&14           PICKUP D CHARACTER     7  1135  M 371 114         83
599  5 39           B     PICKUP                                             4  1142  B |29             83
600  5 40   CKNOP   BCE   PICKUP,INPUT&39,                                   8  1146  B |29 371         83
601  5 41   IOTYP   MCW   INPUT&39,FREE&14           CODE I/O INSTRUCTIONS  7  1154  M 371 114         84
602  5 42           MCW   @&@                          IN ACTUAL IN          4  1161  M ?60             84
603  5 43           MCW   INPUT&39,FREE&20            OPERATION FIELD        7  1165  M 371 120         84
604  5 44           MCW   FREE&15                                            4  1172  M 115             84
605  5 45           MCW   BLANK3                                             4  1176  M A56             84
606  5 46           B     PICKUP                                             4  1180  B |29             84
607  5 47   FIXALF  BCE   ENDALF,INPUT&27&X1,@       SCAN FOR ENDING @ SIGN 8  1184  B S18 3V9 @       84
608  5 48           CHAIN 8                                                                MACRO
609                 BCE                                                    1  1192  B           GEN   85
610                 BCE                                                    1  1193  B           GEN   85
611                 BCE                                                    1  1194  B           GEN   85
612                 BCE                                                    1  1195  B           GEN   85
613                 BCE                                                    1  1196  B           GEN   85
614                 BCE                                                    1  1197  B           GEN   85
615                 BCE                                                    1  1198  B           GEN   85
616                 BCE                                                    1  1199  B           GEN   86
617  5 49   VALUE   A     &1,XL2                      PROCESS STATEMENT AS   7  1200  A R44 094         86
618  5 50           MCW   @$$@,FREE&21&X2            UNPROCESSABLE ALPHA    7  1207  M ?62 1K1         86
619  5 51           B     WHCHOP                       LITERAL ILLEGAL OPND  4  1214  B S54             86
620  5 52   ENDALF  SBR   WAREA3                     PICKUP LITERAL AND     4  1218  H A15             86
621  5 53           S     &VALUE&2,WAREA3              MOVE TO FREE FORM     7  1222  S ?65 A15         86
622  5 54           ZS    WAREA3                       AREA                  4  1229  ! A15             86
623  5 55           A     WAREA3,XL1                                         7  1233  A A15 089         87
624  5 56           A     WAREA3,XL2                                         7  1240  A A15 094         87
625  5 57           MCW   INPUT&17&X1,FREE&21&X2                           7  1247  M 3U9 1K1         87
626  5 58   WHCHOP  C     XL1,@011@                   EXIT ON BASIS OF WHICH 7  1254  C 089 ?37         87
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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
627  5 59           BH    CKB                          OPERAND ACTING UPON     5  1261  B 874 U           87
628  5 60           B     CKOP                                                 4  1266  B 922             87
629  5 61   ABSFIX  BCE   SAMFIX,INPUT&16,             PRINT OUT MESSAGE ONLY  8  1270  B T28 348         88
630  5 62           MCW   INPUT&16,FREE&19             ONCE THAT ACTUAL OPS    7  1278  M 348 119         88
631  5 63           MCW   INPUT&39,FREE&20             ARE PRESENT IN FIXED    7  1285  M 371 120         88
632  5 64   SW1     NOP   SETABS                       FORM IMAGES             4  1292  N T20             88
633  5 65           CS    332                          THIS ACCOUNTS FOR       4  1296  / 332             88
634  5 66           CS                                 THE POSSIBILITY THAT    1  1300  /                 88
635  5 67           MCW   @ACTUAL OP CODES PRESENT IN FIXED FORM IMAGES@,270   7  1301  M A09 270         88
636  5 68           CC    1                            THE USER FORGOT TO      2  1308  F 1               89
637  5 69           W                                  USE AN ENTER            1  1310  2                 89
638  5 70           CC    1                            AUTOCODER STATEMENT     2  1311  F 1               89
639  5 71           MCW   @B@,SW1                      WHEN RETURNING TO       7  1313  M R76 S92         89
640  5 72   SETABS  SW    ABSW#1                       FREE FORM               4  1320  , A10             89
641  5 73           B     TLUFIX                                               4  1324  B 828             89
642  5 74   SAMFIX  MCW   SAVOP,FREE&20                PROCESS SAME OP CODE    7  1328  M R88 120         89
643  5 75           MCW                                                        1  1335  M                 90
644  5 76           B     TLUFIX                                               4  1336  B 828             90
645  5 77   *
646  5 78   * BEGINNING OF PROCESS CONTROL AND DECLARATIVE OPERATION CODES
647  5 79   *
648  5 80   FOUND   BW    FIXINS,EQVADD                DETERMINE TYPE OF       8  1340  V 854 A69 1       90
649  5 81           S     XL3&1                        CONTROL OP AND GO TO    4  1348  S 100             90
650  5 82           MN    EQVADD-1,XL3                 APPROPRIATE ROUTINE     7  1352  D A68 099         90
651  5 83           A     XL3                                                  4  1359  A 099             90
652  5 84           A     XL3                                                  4  1363  A 099             90
653  5 85           B     *&1&X3                                               4  1367  B TG1             91
654  5 86           B     BADOP                        DA ILLEGAL IN FIXED FM  4  1371  B P28             91
655  5 87           B     DCWSTM                       GO TO CONSTANT RTN      4  1375  B U84             91
656  5 88           B     ERHLT                        SHOULD NEVER OCCUR      4  1379  B U73             91
657  5 89           B     ONEOP                        END, EX, XFR            4  1383  B X60             91
658  5 90           B     ONEOP                        GO TO SUFFIX RTN        4  1387  B X60             91
659  5 91           B     ERHLT                        SHOULD NEVER OCCUR      4  1391  B U73             91
660  5 92           B     CKLOR                        GO TO ORIGIN RTN        4  1395  B Y89             92
661  5 93           B     DSTYP                        GO TO DS, EQU RTN       4  1399  B X88             92
662  5 94           B     INSPC                        GO TO SPECIAL ROUTINE   4  1403  B U21             92
663  5 95           MCW   INPUT&55,FREE&59                                     7  1407  M 387 159         92
664  5 96           MCW                                TO FREE FORM AREA       1  1414  M                 92
665  5 97           MCW                                                        1  1415  M                 92
666  5 98           MCW                                                        1  1416  M                 92
667  5 99           B     ENDFIX                                               4  1417  B 626             93
668  6 00   INSPC   BCE   NOPND,INPUT&17,              PROCESS                 8  1421  B U62 349         93
669  6 01           MCW   @B@,FREE&18                  CC AND CCB AND SS       7  1429  M R76 118         93
670  6 02           MCW   EQVADD-2,EQVADD              AND SSB                 7  1436  M A67 A69         93
671  6 03           LCA   BLANK                                                4  1443  L A54             93
672  6 04           MCW   EQVADD,FREE&15                                       7  1447  M A69 115         93
673  6 05           MCW   @ &@                                                 4  1454  M A12             94
674  6 06           B     FIXINS                                               4  1458  B 854             94
675  6 07   NOPND   MCW   INPUT&39,FREE&21             PROCESS TWO CHARACTER   7  1462  M 371 121         94
676  6 08           B     ENDFIX                       INSTRUCTIONS            4  1469  B 626             94
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
677  6 09   ERHLT  H     0,301                    SYSTEM ERROR HALT    7  1473  . 000 301          94
678  6 10          B     ERHLT                                         4  1480  B U73              94
679  6 11   *
680  6 12   *PROCESS DCW, DC STATEMENTS
681  6 13   *
682  6 14   DCWSTM BCE   DCWTYP,INPUT&17,*        Q. DCW*              8  1484  B V51 349 *        94
683  6 15          A     BLANK,INPUT&17           ASSURE NOT BLANK     7  1492  A A54 349          95
684  6 16          MCW   FREE&18,WAREA6#6         GENERATE EQUATE      7  1499  M 118 A18          95
685  6 17          MCW                             FOR DCW ACTUAL      1  1506  M                  95
686  6 18          MCW   @EQU@,FREE&18                                 7  1507  M A21 118          95
687  6 19          MCW   @&P @                                        4  1514  M A24              95
688  6 20          MCW   INPUT&21,FREE&25                             7  1518  M 353 125          95
689  6 21          B     PUT                                          4  1525  B 586              95
690  6 22          MCW   FREE&74,FREE&73                             7  1529  M 174 173          96
691  6 23          MCW   INPUT&22,FREE&11          GENERATE FREE FORM   7  1536  M 354 111          96
692  6 24          MCW   WAREA6,FREE&18             DCW ACTUAL        7  1543  M A18 118          96
693  6 25          MCW                                                1  1550  M                  96
694  6 26   DCWTYP CW    INPUT&40,INPUT&39        REMOVE WORD MARKS    7  1551  ) 372 371          96
695  6 27          CW    INPUT&28                                     4  1558  ) 360              96
696  6 28          BCE   DSARTN,FREE&14,J        Q. DSA STATEMENT     8  1562  B X15 114 J        97
697  6 29          BCE   KNOWN,INPUT&23,&        Q. IS THE LENGTH OF  8  1570  B W69 355 &        97
698  6 30          BCE   KNOWN,INPUT&23,-         THE CONSTANT TO BE  8  1578  B W69 355 -        97
699  6 31          BCE   KNOWN,INPUT&23,@         COMPUTED BY THE     8  1586  B W69 355 @        97
700  6 32          MN    INPUT&7,XL1               PROCESSOR          7  1594  D 339 089          97
701  6 33          MN                                                 1  1601  D                  98
702  6 34          A     BLANK,XL1                                    7  1602  A A54 089          98
703  6 35          C     XL1,@032@                Q. COUNT GT 32 OR   7  1609  C 089 A27          98
704  6 36          BL    CORERR                    LT ZERO. IF        5  1616  B W80 T             98
705  6 37          C     XL1,@000@                 ERROR ATTEMPT TO   7  1621  C 089 A30          98
706  6 38          BE    CORERR                    PROCESS RECORD ANYWAY 5 1628 B W80 S            98
707  6 39   RTNDCW MCW   INPUT&23&X1,FREE&21&X1   CONSTANT TO FREE FORM  7  1633  M 3V5 1S1          98
708  6 40          MCW   @@@,FREE&21              ENCLOSE DCW WITHIN   7  1640  M A31 121          99
709  6 41          MCW   @@@,FREE&22&X1           AT SIGNS             7  1647  M A31 1S2          99
710  6 42   RSTWM  SW    INPUT&40,INPUT&39        RESET WORD MARKS     7  1654  , 372 371          99
711  6 43          SW    INPUT&28                                     4  1661  , 360              99
712  6 44          B     ENDFIX                                       4  1665  B 626              99
713  6 45   KNOWN  MCW   INPUT&55,FREE&53         PICKUP ENTIRE DCW AREA 7 1669 M 387 153         99
714  6 46          B     RSTWM                                        4  1676  B W54             100
715  6 47   CORERR S     XL1&1                                        4  1680  S 090             100
716  6 48   LPERR  BCE   RTNDCW,INPUT&24&X1,      SCAN FOR FIRST BLANK 8  1684  B W33 3V6         100
717  6 49          A     &1,XL1                    IN ATTEMPT TO CORRECT 7 1692  A R44 089         100
718  6 50          C     XL1,@52@                 Q) END OF RECORD     7  1699  C 089 A33          100
719  6 51          BE    RTNDCW                                       5  1706  B W33 S            100
720  6 52          B     LPERR                                        4  1711  B W84              100
721  6 53   *
722  6 54   * PROCESS DSA STATEMENTS
723  6 55   *
724  6 56   DSARTN S     XL2&2                    PICKUP FIXED FORM DSA 4 1715  S 096             101
725  6 57          MCW   @011@,XL1                 AND PLACE IN FREE FOR 7 1719 M ?37 089         101
726  6 58          B     SCAN                      FORM AREA            4  1726  B Z09              101
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

727  6 59          MCW   FREE&72,FREE&73              IF UNSIGNED MAKE SIGN      7  1730  M 172 173          101
728  6 60          MCW   @&@                           PLUS                      4  1737  M ?60              101
729  6 61          BCE   RSTWM,INPUT&27,              Q. NO SIGN                 8  1741  B W54 359          101
730  6 62          MCW   INPUT&27,FREE&21             SIGN ADDRESS CONSTANT      7  1749  M 359 121          102
731  6 63          B     RSTWM                                                   4  1756  B W54              102
732  6 64   ONEOP  B     *&5,INPUT&17,                PROCESS THOSE              8  1760  B X72 349          102
733  6 65          B     SCAN                          INSTRUCTIONS              4  1768  B Z09              102
734  6 66          C     @3 @,EQVADD                   THAT ONLY HAVE ONE OP     7  1772  C ?01 A69          102
735  6 67          BE    PREOJ                        IF END CARD GOT TO EOJ     5  1779  B Q67 S            102
736  6 68          B     ENDFIX                                                  4  1784  B 626              102
737  6 69   *
738  6 70   * PROCESS DS, EQU STATEMENTS
739  6 71   *
740  6 72   DSTYP  BCE   DSACT,INPUT&17,*             IF DS IS REALLY AN         8  1788  B Y33 349 *        103
741  6 73          BCE   *&5,INPUT&17,                 EQU CHANGE OP             8  1796  B Y08 349          103
742  6 74          B     *&8                           CODE. ASSURE              4  1804  B Y15              103
743  6 75          NOP   BLANK,INPUT&17                OPERAND NOT BLANK         7  1808  N A54 349          103
744  6 76   DOEQU  MCW   @EQU@,FREE&18                                          7  1815  M A21 118          103
745  6 77          MCW   @P@,FREE&14                                            7  1822  M A34 114          104
746  6 78          B     ONEOP                                                   4  1829  B X60              104
747  6 79   DSACT  SW    INPUT&6                      PROCESS DS ACTUAL          4  1833  , 338              104
748  6 80          A     BLANK,INPUT&7                                           7  1837  A A54 339          104
749  6 81          CW    INPUT&6                                                 4  1844  ) 338              104
750  6 82          C     INPUT&7,@00@                 Q. NO COUNT                7  1848  C 339 A36          104
751  6 83          BE    DOEQU                                                   5  1855  B Y15 S            104
752  6 84          MCW   INPUT&7,FREE&22                                         7  1860  M 339 122          105
753  6 85          B     ENDFIX                                                  4  1867  B 626              105
754  6 86   *
755  6 87   *PROCESS COMMENTS CARDS
756  6 88   *
757  6 89   COMCRD MCW   INPUT&55,FREE&53             PROCESS COMMENTS CARDS     7  1871  M 387 153          105
758  6 90          CHAIN 7                                                                          MACRO
759                MCW                                                          1  1878  M           GEN    105
760                MCW                                                          1  1879  M           GEN    105
761                MCW                                                          1  1880  M           GEN    105
762                MCW                                                          1  1881  M           GEN    105
763                MCW                                                          1  1882  M           GEN    106
764                MCW                                                          1  1883  M           GEN    106
765                MCW                                                          1  1884  M           GEN    106
766  6 91          B     ENTSPS                                                  4  1885  B 626              106
767  6 92   *
768  6 93   * PROCESS ORIGIN, LTORG STATEMENTS
769  6 94   *
770  6 95   CKLOR  BCE   ONEOP,FREE&16,O              CHANGE MNEMONIC TO         8  1889  B X60 116 O        106
771  6 96          MCW   @LTORG@,FREE&20               -LTORG- IF LITERAL        7  1897  M A41 120          106
772  6 97          MCW                                 ORG STATEMENT             1  1904  M                  106
773  6 98          B     ONEOP                                                   4  1905  B X60              107
774  6 99   *
775  7 00   *SCAN ROUTINE WHICH CONVERTS FIXED FORM RECORDS INTO FREE FORM
776  7 01   *
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SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
777  7 02   SCAN    SBR   SCNXT&3                             4  1909  H J20             107
778  7 03           S     XL3&1                RESET INDEX 3  4  1913  S 100             107
779  7 04   LOOP1   BCE   CK1BK,INPUT&18&X1,   Q. BLANK CHARACTER  8  1917  B Z62 3V0  107
780  7 05   CXL1    C     XL3,@05@             Q. END OF ADDRESS  7  1925  C 099 A43  107
781  7 06           BE    NDOPD                               5  1932  B Z86 S         107
782  7 07           A     &1,XL1               INCREASE ALL INDEX  7  1937  A R44 089  107
783  7 08           A     &1,XL2                REGISTERS      7  1944  A R44 094      108
784  7 09           A     &1,XL3                               7  1951  A R44 099      108
785  7 10           B     LOOP1                               4  1958  B Z17          108
786  7 11   CK1BK   C     XL3,@04@             TOLERATE ONE BLANK  7  1962  C 099 A45  108
787  7 12           BE    NDOPD                 IN ADDRESS    5  1969  B Z86 S         108
788  7 13           BCE   *&5,INPUT&19&X1,                   8  1974  B Z86 3V1       108
789  7 14           B     CXL1                                4  1982  B Z25          109
790  7 15   NDOPD   MCW   INPUT&17&X1,FREE&21&X2  MOVE ADDRESS PORTION  7  1986  M 3U9 1K1  109
791  7 16           C     XL1,@011@             TO FREE FORM AREA  7  1993  C 089 ?37  109
792  7 17           S     XL1&2                               4  2000  S 091          109
793  7 18           BH    *&8                                 5  2004  B !16 U        109
794  7 19           MCW   @011@,XL1                           7  2009  M ?37 089      109
795  7 20           BCE   CKLIT2,INPUT&23&X1,  Q. NO CHARACTER ADJ  8  2016  B J88 3V5  110
796  7 21           BWZ   MKMIN,INPUT&23&X1,K  ASSURE CHAR ADJ  8  2024  V J21 3V5 K  110
797  7 22           MCW   @&@,INPUT&23&X1       & OR -        7  2032  M ?60 3V5      110
798  7 23   RTN2    SW    INPUT&24&X1,INPUT&23&X1  PROCESS CHARACTER  7  2039  , 3V6 3V5  110
799  7 24           A     BLANK,INPUT&26&X1     ADJUSTMENT    7  2046  A A54 3V8      110
800  7 25           A     &4,XL2                              7  2053  A A46 094      111
801  7 26           MCW   INPUT&26&X1,FREE&21&X2              7  2060  M 3V8 1K1      111
802  7 27           MCW                                       1  2067  M              111
803  7 28           CW    INPUT&24&X1,INPUT&23&X1             7  2068  ) 3V6 3V5      111
804  7 29   NOADJ   BCE   FIXLIT,INPUT&17&X1,&  Q. LITERAL   8  2075  B J32 3U9 &  111
805  7 30           BCE   FIXLIT,INPUT&17&X1,-                8  2083  B J32 3U9 -  111
806  7 31           BCE   SCNXT,INPUT&27&X1,    Q. INDEXING   8  2091  B J17 3V9      112
807  7 32           A     &3,XL2                PROCESS INDEXING  7  2099  A A47 094  112
808  7 33           MN    INPUT&27&X1,FREE&21&X2              7  2106  D 3V9 1K1      112
809  7 34           MCW   @&X@                                4  2113  M A49          112
810  7 35   SCNXT   B     XXXX                  EXIT          4  2117  B 000          112
811  7 36   MKMIN   MCW   @-@,INPUT&23&X1       SET CHAR ADJ SIGN  7  2121  M A50 3V5  112
812  7 37           B     RTN2                  TO MINUS      4  2128  B !39          113
813  7 38   FIXLIT  BCE   NOT11,INPUT&27&X1,    PROCESS REMAINDER OF  8  2132  B J58 3V9  113
814  7 39           A     &1,XL2                 FIXED FORM NUMERIC  7  2140  A R44 094  113
815  7 40           MN    INPUT&27&X1,FREE&21&X2  LITERAL     7  2147  D 3V9 1K1      113
816  7 41           B     SCNXT                               4  2154  B J17          113
817  7 42   NOT11   BCE   SUBT,INPUT&26&X1,                  8  2158  B J70 3V8      113
818  7 43           B     SCNXT                               4  2166  B J17          114
819  7 44   SUBT    A     @I99@,XL1                           7  2170  A A53 089      114
820  7 45           A     @I99@,XL2                           7  2177  A A53 094      114
821  7 46           B     NOT11                               4  2184  B J58          114
822  7 47   CKLIT2  BCE   SCNXT,INPUT&17&X1,&  Q. LITERAL   8  2188  B J17 3U9 &  114
823  7 48           BCE   SCNXT,INPUT&17&X1,-                8  2196  B J17 3U9 -  114
824  7 49           B     NOADJ                               4  2204  B !75          115
825  7 50           DCW   0                                   1  2208                 115
826  7 51   SYSMK1  DCW   @}@                 SYSTEM GROUP MARK  1  2209            115
```

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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
827  7 52          XFR   0                                                       B 000              116
828  7 53   RTEND  EQU   *                                                    2209
```

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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

829  7 54           JOB   1401 AUTOCODER-PASS 3 RIGHT MAIN LINE  -VERSION 3
830  7 55   *
831  7 56   *TABLE LOOKUP OF MNEMONIC OP CODE
832  7 57   *
833  7 58           ORG   BEGIN                                                    2465
834  7 59   TLUOP   SBR   TLUXT&3                                          4  2465  H O46              119
835  7 60           C     FREE&18,BLANK3#3            Q. ACTUAL           7  2469  C 118 A56          119
836  7 61           BE    ABSCOD                       OP CODE            5  2476  B P55 S            119
837  7 62           MLC   FREE&18,XL2                                     7  2481  M 118 094          119
838  7 63           A     FREE&18,XL2-1                                   7  2488  A 118 093          119
839  7 64           A     FREE&18,XL2-2                                   7  2495  A 118 092          119
840  7 65           A     FREE&16,XL2                 TABLE LOOKUP        7  2502  A 116 094          120
841  7 66   SUB1    S     &5500,XL2&1                  USES ADDRESS       7  2509  S A60 095          120
842  7 67           BWZ   SUB1,XL2&1,B                CONVERSION TECHNIQUE 8 2516  V N09 095 B        120
843  7 68           MLCWA OPND-549&X2,EQVADD#9                            7  2524  L BN9 A69          120
844  7 69           SAR   GETOP&3                                         4  2531  Q N42              120
845  7 70           S     XL2&2                                           4  2535  S 096              120
846  7 71   GETOP   MLCWA XXXX,EQVADD                 SEARCH TABLE FOR    7  2539  L 000 A69          121
847  7 72           SAR   GETOP&3                      MNEMONIC           4  2546  Q N42              121
848  7 73           BCE   BADOP,EQVADD,@              Q. OP NOT IN TABLE  8  2550  B P28 A69 @        121
849  7 74           C     EQVADD,FREE&18              Q. OP CODE FOUND    7  2558  C A69 118          121
850  7 75           BU    GETOP                                           5  2565  B N39 /            121
851  7 76           LCA   EQVADD-3,EQVADD             SHIFT TABLE FUNCTION 7 2570  L A66 A69          121
852  7 77           C     @N @,EQVADD                 Q. ENTER CARD       7  2577  C A71 A69          122
853  7 78           BE    ENTER                                           5  2584  B O47 S            122
854  7 79           C     EQVADD,@B @                 Q.MLC, MLCWA TYPE   7  2589  C A69 A73          122
855  7 80           BE    SPECIN                                          5  2596  B O83 S            122
856  7 81           C     EQVADD,@2 @                 Q. RAMAC INSTN      7  2601  C A69 A75          122
857  7 82           BE    SPECIN                                          5  2608  B O83 S            122
858  7 83   SAVCOD  MCW   EQVADD,FREE&15              PLACE TABLE FUNCTION 7 2613  M A69 115          123
859  7 84           SBR   XL3                         ON RECORD PRECEDED BY 4 2620  H 099              123
860  7 85           C     XL3,&FREE&11                A PLUS SIGN         7  2624  C 099 A78          123
861  7 86           BE    *&8                                             5  2631  B O43 S            123
862  7 87           MCW   @&@,000&X3                                     7  2636  M ?60 0?0          123
863  7 88   TLUXT   B     XXXX                        EXIT                4  2643  B 000              123
864  7 89   ENTER   C     FREE&23,@SPS@               DETERMINE TYPE OF   7  2647  C 123 A81          124
865  7 90           BE    GTFIX                       ENTER CARD AND      5  2654  B 464 S            124
866  7 91           C     INPUT&20,@AUTO@             GO TO APPROPRIATE   7  2659  C 352 A85          124
867  7 92           BE    GTFRE                       ROUTINE             5  2666  B 503 S            124
868  7 93           BW    PSTNU,MODESW                                    8  2671  V 630 ?02 1        124
869  7 94           B     RSTMOD                                          4  2679  B 638              124
870  7 95   SPECIN  BWZ   MLCTYP,EQVADD-1,B           Q. MLC TYPE         8  2683  V P17 A68 B        125
871  7 96           LCA   EQVADD-2,EQVADD                                 7  2691  L A67 A69          125
872  7 97   CKEL    BCE   SAVCOD,FREE&19,             Q. SHOULD OP BE -L-  8  2698  B O13 119          125
873  7 98           MCW   @L@,EQVADD                 MAKE OP CODE -L-    7  2706  M A86 A69          125
874  7 99           B     SAVCOD                                          4  2713  B O13              125
875  8 00   MLCTYP  LCA   @M@,EQVADD                 MAKE OP -M-         7  2717  L A87 A69          126
876  8 01           B     CKEL                                            4  2724  B O98              126
877  8 02   *
878  8 03   * PROCESS ILLEGAL OPERATION CODE
```

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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
879  8 04   *
880  8 05   BADOP  LCA   BLANK,EQVADD                MAKE OP BLANK          7  2728  L A54 A69          126
881  8 06          BW    SAVCOD,FREESW               Q. IN FREE FORM MODE   8  2735  V O13 H09 1        126
882  8 07          BW    CKFF,MODESW                 Q. IN FREE FORM MODE   8  2743  V Q01 ?02 1        126
883  8 08          B     SAVCOD                                             4  2751  B O13              126
884  8 09   ABSCOD BCE   SAVCOD,FREE&19,                                    8  2755  B O13 119          127
885  8 10          LCA   BLANK,EQVADD               PROCESS ACTUAL OP      7  2763  L A54 A69          127
886  8 11          MCW   FREE&19,EQVADD               CODES                 7  2770  M 119 A69          127
887  8 12          BCE   SAVCOD,FREE&20,                                   8  2777  B O13 120          127
888  8 13          CW    EQVADD                                             4  2785  ) A69              127
889  8 14          SW                                                       1  2789  ,                  127
890  8 15          MCW   FREE&20,EQVADD-1                                  7  2790  M 120 A68          128
891  8 16          B     SAVCOD                                             4  2797  B O13              128
892  8 17   CKFF   BCE   SAVCOD,FREE&14,              IF RECORD APPEARS TO B 8  2801  B O13 114          128
893  8 18          MCW   FREE&80,INPUT&80             BE FIXED FORM RECORD  7  2809  M 180 412          128
894  8 19          CHAIN 9                                                                MACRO
895                MCW                                                      1  2816  M                  GEN    128
896                MCW                                                      1  2817  M                  GEN    128
897                MCW                                                      1  2818  M                  GEN    128
898                MCW                                                      1  2819  M                  GEN    129
899                MCW                                                      1  2820  M                  GEN    129
900                MCW                                                      1  2821  M                  GEN    129
901                MCW                                                      1  2822  M                  GEN    129
902                MCW                                                      1  2823  M                  GEN    129
903                MCW                                                      1  2824  M                  GEN    129
904  8 20          CS    332                                                4  2825  / 332              129
905  8 21          CS                                                       1  2829  /                  130
906  8 22          MCW   FREE&80,PRINT&80                                  7  2830  M 180 280          130
907  8 23          CHAIN 4                                                                MACRO
908                MCW                                                      1  2837  M                  GEN    130
909                MCW                                                      1  2838  M                  GEN    130
910                MCW                                                      1  2839  M                  GEN    130
911                MCW                                                      1  2840  M                  GEN    130
912  8 24          MCW   @PROCESSING AS FIXED FORM RECORD@,332              7  2841  M B18 332          130
913  8 25          W                                                        1  2848  2                  131
914  8 26          SW    FREESW                                             4  2849  , H09              131
915  8 27          BCV   RESTR                                              5  2853  B Q62 @            131
916  8 28          B     GTFIX                                              4  2858  B 464              131
917  8 29   RESTR  CCB   GTFIX, 1                                           5  2862  F 464 1            131
918  8 30   *
919  8 31   * END OF JOB PROCEDURE
920  8 32   *
921  8 33   PREOJ  RTW   SYSTAP,OVL2                 SKIP PAST OVERLAY      8  2867  L %U1 626 R        131
922  8 34   EOJ    B     PUT                         PUT END CARD           4  2875  B 586              131
923  8 35          WTM   OUTAPE                      WRITE TAPE MARK        5  2879  U %U4 M            132
924  8 36          MESSG @PASS 3 COMPLETED@,60,K,1                                        MACRO
925    01          CC    K                                                  2  2884  F K                GEN    132
926    02          CS    332                                                4  2886  / 332              GEN    132
927    03          CS                                                       1  2890  /                  GEN    132
928    04          MCW   @PASS 3 COMPLETED@,60&200                         7  2891  M B34 260          GEN    132
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
929     05         W                                                  1  2898  2           GEN   132
930     06         CC    1                                            2  2899  F 1         GEN   132
931  8  37         CW    SYSMK1                    CLEAR GROUP MK W/ WM  4  2901  ) K09             133
932  8  38         CW    GMK1,GMK2                                      7  2905  ) I89 187         133
933  8  39         RTW   SYSTAP,OVL2                                   8  2912  L %U1 626 R       133
934  8  40         RTW   SYSTAP,085                 READ IN PASS 4       8  2920  L %U1 085 R       133
935  8  41         NOP   0                                            4  2928  N 000             133
936  8  42         BER   TPERR                                        5  2932  B K10 L           133
937  8  43         B     PASSB2                    GO TO NEXT PASS      4  2937  B 200             134
938  8  44         LTORG *                                                     2941
       352          DCW   &INAREA&12                                   3  2943  I15         ADCON 134
                          &1                                           1  2944              LIT   134
                          @CHA@                                        3  2947              LIT   134
                          @S@                                          1  2948              LIT   134
                          @Z@                                          1  2949              LIT   134
                          &00                                          2  2951              LIT   134
       406  HLDCD         #01                                          1  2952              AREA  135
                          @C@                                          1  2953              LIT   135
                          @Y@                                          1  2954              LIT   135
                          @&1 @                                        3  2957              LIT   135
       428                @EQU  @                                      5  2962              LIT   135
       430                @$HIVAL &P @                                10  2972              LIT   135
       432                &NUREC                                       3  2975  626         ADCON 135
                          @B@                                          1  2976              LIT   136
                          @   @                                        3  2979              LIT   136
       445  SAVOP         #09                                          9  2988              AREA  136
       447                @$HIVAL@                                     6  2994              LIT   136
       450                @$P   @                                      5  2999              LIT   136
                          @3 @                                         2  3001              LIT   136
       484  MODESW        #01                                          1  3002              AREA  136
       536                @ILLEGAL LABEL - SEQUENCE NUMBER@           31  3033              LIT   137
                          @,@                                          1  3034              LIT   137
                          @011@                                        3  3037              LIT   137
                          @B  @                                        3  3040              LIT   137
                          @  B@                                        3  3043              LIT   138
                          @NOP@                                        3  3046              LIT   138
                          @BCE@                                        3  3049              LIT   138
                          @BIN@                                        3  3052              LIT   138
                          @& B@                                        3  3055              LIT   138
                          &5                                           1  3056              LIT   138
                          @BSS@                                        3  3059              LIT   138
                          @&@                                          1  3060              LIT   139
                          @$$@                                         2  3062              LIT   139
       621                &VALUE&2                                     3  3065  S02         ADCON 139
       635                @ACTUAL OP CODES PRESENT IN FIXED FORM IMAGES@ 44  3109              LIT   141
       640  ABSW          #01                                          1  3110              AREA  141
                          @ &@                                         2  3112              LIT   141
       684  WAREA6        #06                                          6  3118              AREA  141
                          @EQU@                                        3  3121              LIT   141
                          @&P @                                        3  3124              LIT   142
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
962	8	68		DCW	@F3WM2 WDC@		9	3340		150
963	8	69		DCW	@ FCCB@		5	3345		150
964	8	70		DCW	@S1DUDCR@		7	3352		151
965	8	71		DCW	@YMLZ@		4	3356		151
966	8	72		DCW	@@M @		4	3360		151
967	8	73		DCW	@UEUSKP@		6	3366		151
968	8	74		DCW	@O ORG@		5	3371		151
969	8	75		DCW	@HSBR@		4	3375		151
970	8	76		DCW	@K8 SS @		6	3381		151
971	8	77		DCW	@YMZ @		4	3385		152
972	8	78		DCW	@ @		1	3386		152
973	8	79		DCW	@)CW @		4	3390		152
974	8	80		DCW	@UWLWTW@		6	3396		152
975	8	81		DCW	@B MLC@		5	3401		152
976	8	82		DCW	@ZMCS@		4	3405		152
977	8	83		DCW	@UWMWT @		6	3411		152
978	8	84		DCW	@MMCW@		4	3415		153
979	8	85		DCW	@F2WM2 WDT@		9	3424		153
980	8	86		DCW	@QSAR@		4	3428		153
981	8	87		DCW	@R6WRF@		5	3433		153
982	8	88		DCW	@S1EUECR@		7	3440		153
983	8	89		DCW	@8SRF@		4	3444		153
984	8	90		DCW	@)2WM @		5	3449		153
985	8	91		DCW	@1VBW @		5	3454		154
986	8	92		DCW	@9BBC9@		5	3459		154
987	8	93		DCW	@1R @		4	3463		154
988	8	94		DCW	@URLRTW@		6	3469		154
989	8	95		DCW	@F1RMRD @		7	3476		154
990	8	96		DCW	@F1RLRDW@		7	3483		154
991	8	97		DCW	@MMU @		4	3487		154
992	8	98		DCW	@VBWZ@		4	3491		155
993	8	99		DCW	@,SW @		4	3495		155
994	9	00		DCW	@RBBPC@		5	3500		155
995	9	01		DCW	@CC @		4	3504		155
996	9	02		DCW	@C4PCB@		5	3509		155
997	9	03		DCW	@DMLN@		4	3513		155
998	9	04		DCW	@UMUWTM@		6	3519		155
999	9	05		DCW	@EMCE@		4	3523		156
1000	9	06		DCW	@C EX @		5	3528		156
1001	9	07		DCW	@ UCU @		5	3533		156
1002	9	08		DCW	@ZBBAV@		5	3538		156
1003	9	09		DCW	@5RP @		4	3542		156
1004	9	10		DCW	@.H @		4	3546		156
1005	9	11		DCW	@LLU @		4	3550		156
1006	9	12		DCW	@BWMWTB@		6	3556		157
1007	9	13		DCW	@ KSSB@		5	3561		157
1008	9	14		DCW	@KBBEF@		5	3566		157
1009	9	15		DCW	@PMRC@		4	3570		157
1010	9	16		DCW	@UBUBSP@		6	3576		157
1011	9	17		DCW	@URMRT @		6	3582		157

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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1012  9 18          DCW   @SBBE @                                     5  3587                    157
1013  9 19          DCW   @3WR @                                      4  3591                    158
1014  9 20          DCW   @SS  @                                      4  3595                    158
1015  9 21          DCW   @BB  @                                      4  3599                    158
1016  9 22          DCW   @1 DCW@                                     5  3604                    158
1017  9 23          DCW   @WBBE@                                      4  3608                    158
1018  9 24          DCW   @J DSA@                                     5  3613                    158
1019  9 25          DCW   @LLCA@                                      4  3617                    158
1020  9 26          DCW   @A DC @                                     5  3622                    159
1021  9 27          DCW   @F1WLWDW@                                   7  3629                    159
1022  9 28          DCW   @7WRP@                                      4  3633                    159
1023  9 29          DCW   @ BBIN@                                     5  3638                    159
1024  9 30          DCW   @KVBM @                                     5  3643                    159
1025  9 31          DCW   @PBBPB@                                     5  3648                    159
1026  9 32          DCW   @9SPF@                                      4  3652                    159
1027  9 33          DCW   @M SFX@                                     5  3657                    160
1028  9 34          DCW   @4P  @                                      4  3661                    160
1029  9 35          DCW   @F0RMSD @                                   7  3668                    160
1030  9 36          DCW   @@BBCV@                                     5  3673                    160
1031  9 37          DCW   @!ZS @                                      4  3677                    160
1032  9 38          DCW   @O LTO@                                     5  3682                    160
1033  9 39          DCW   @P EQU@                                     5  3687                    160
1034  9 40          DCW   @ BBSS@                                     5  3692                    161
1035  9 41          DCW   @F8 CC @                                    6  3698                    161
1036  9 42          DCW   @AA  @                                      4  3702                    161
1037  9 43          DCW   @LBBER@                                     5  3707                    161
1038  9 44          DCW   @/BBU @                                     5  3712                    161
1039  9 45          DCW   @BBCE@                                      4  3716                    161
1040  9 46          DCW   @UBBH @                                     5  3721                    161
1041  9 47          DCW   @TBBL @                                     5  3726                    162
1042  9 48          DCW   @X DS @                                     5  3731                    162
1043  9 49          DCW   @F2RM2 RDT@                                 9  3740                    162
1044  9 50          DCW   @AMMBD@                                     5  3745                    162
1045  9 51          DCW   @2W  @                                      4  3749                    162
1046  9 52          DCW   @F1WMWD @                                   7  3756                    162
1047  9 53          DCW   @DMN @                                      4  3760                    162
1048  9 54          DCW   @C1RCB@                                     5  3765                    163
1049  9 55          DCW   @6WP @                                      4  3769                    163
1050  9 56          DCW   @XMIZ@                                      4  3773                    163
1051  9 57          DCW   #9                                          9  3782                    163
1052  9 58          DCW   #3                                          3  3785                    163
1053  9 59          DCW   @?ZA @                                      4  3789                    163
1054  9 60          DCW   #1                                          1  3790                    163
1055  9 61          DCW   @UUURWU@                                    6  3796                    164
1056  9 62          DCW   @URURWD@                                    6  3802                    164
1057  9 63          DCW   @R4RF @                                     5  3807                    164
1058  9 64    OPND  DCW   #1                                          1  3808                    164
1059  9 65    *
1060  9 66    * CONSTANTS AND TABLES
1061  9 67    *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1062  9 68   FREESW DC    0                                           1  3809                      164
1063  9 69   BINTBL DCW   @BAV Z@                                     5  3814                      164
1064  9 70          DCW   @BC9 9@                                     5  3819                      164
1065  9 71          DCW   @BU  /@                                     5  3824                      164
1066  9 72          DCW   @BCV @@                                     5  3829                      165
1067  9 73          DCW   @BE  S@                                     5  3834                      165
1068  9 74          DCW   @BEF K@                                     5  3839                      165
1069  9 75          DCW   @BER L@                                     5  3844                      165
1070  9 76          DCW   @BH  U@                                     5  3849                      165
1071  9 77          DCW   @BL  T@                                     5  3854                      165
1072  9 78          DCW   @BLC A@                                     5  3859                      165
1073  9 79          DCW   @BPB P@                                     5  3864                      166
1074  9 80          DCW   @BPCBR@                                     5  3869                      166
1075  9 81          DCW   @BSS B@                                     5  3874                      166
1076  9 82          DCW   @BSS C@                                     5  3879                      166
1077  9 83          DCW   @BSS D@                                     5  3884                      166
1078  9 84          DCW   @BSS E@                                     5  3889                      166
1079  9 85          DCW   @BSS F@                                     5  3894                      166
1080  9 86          DCW   @BSS G@                                     5  3899                      167
1081  9 87   *
1082  9 88   *TAPE INPUT AREA
1083  9 89   *
1084  9 90          DS    3                                              3902
1085  9 91   INAREA DA    1X86,G                                         3903   3988               167
                     DCW   @}@                                         1  3989              GMARK  168
1086  9 92   GMK1   EQU   *                                              3989
1087  9 93   *
1088  9 94   *  EQUATES
1089  9 95   *
1090  9 96   BLANK  EQU   BLANK3-2                                      3154
1091  9 97   BLNK2  EQU   BLANK3-1                                      3155
1092  9 98   ENDFIX EQU   ENTSPS                                        0626
1093  9 99   WAREA3 EQU   WAREA6-3                                      3115
1094 10 00   WAREA2 EQU   WAREA6-4                                      3114
1095 10 01          EX    LIBRN                                             B 000              169
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 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

1096 10 02          JOB   1401 AUTOCODER-PASS 4-LEFT MAIN LINE -VERSION 3
1097 10 03          SFX   Z
1098 10 04   *
1099 10 05   * INITIALIZATION OF INDEX LOCATIONS
1100 10 06   *
1101 10 07          ORG   085                                         Z          0085
1102 10 08   GRPMK1 DC    @}@                                         Z   1  0085                  172
1103 10 09          DC    0                                           Z   1  0086                  172
1104 10 10   XL1    DCW   000                                         Z   3  0089                  172
1105 10 11          DC    00                                          Z   2  0091                  172
1106 10 12   XL2    DCW   000                                         Z   3  0094                  172
1107 10 13          DC    00                                          Z   2  0096                  172
1108 10 14   XL3    DCW   000                                         Z   3  0099                  172
1109 10 15          DS    1                                           Z      0100
1110 10 16   *
1111 10 17   *FIXED FORM IMAGE AREA
1112 10 18   *
1113 10 19   IMAGE  EQU   *                                           Z      0100
1114 10 20          DS    84                                          Z      0184
1115 10 21   GRPMK4 DC    @}@                                         Z   1  0185                  173
1116 10 22   ZONE   DCW   @2SKB@                                      Z   4  0189                  173
1117 10 23   EXOVFL DCW   99                        CONSTANTS USED IN Z   2  0191                  173
1118 10 24   EXNUMB DCW   00                         MAKING LITERAL LABELS Z  2  0193               173
1119 10 25   PROCOR DCW   #1                                          Z   1  0194                  173
1120 10 26   TOTLBL DCW   &0000                                       Z   4  0198                  174
1121 10 27   JOBSW  DCW   0                                           Z   1  0199                  174
1122 10 28   *
1123 10 29   * READ IN CONTROL CARD OVERLAP
1124 10 30   *
1125 10 31   PASSB2 RTW   SYSTAP,DOPROG                              Z   8  0200  L %U1 N75 R      174
1126 10 32          NOP   0                                           Z   4  0208  N 000           174
1127 10 33          BER   TPERR                                       Z   5  0212  B 221 L         174
1128 10 34          B     START                                       Z   4  0217  B N75           174
1129 10 35   *
1130 10 36   *TAPE REDUNDANCY ROUTINE
1131 10 37   *
1132 10 38   TPERR  SBR   XL3                                         Z   4  0221  H 099           174
1133 10 39          SBR   REDXT&3                                     Z   4  0225  H 293           175
1134 10 40          MZ    &9,XL3                                      Z   7  0229  Y 464 099       175
1135 10 41          MCW   4000-10&X3,TPINS&7     BRING IN INSTRUCTION Z  7  0236  M II0 284       175
1136 10 42          MN    TPINS&3,BSP1&3          THAT COUSED         Z   7  0243  D 280 260       175
1137 10 43          MCW   TPINS&7,INST2&7         REDUNDANCY          Z   7  0250  M 284 393       175
1138 10 44   BSP1   BSP   INITAP                  BACKSPACE TAPE      Z   5  0257  U %U0 B         175
1139 10 45          BCE   WRTRD,TPINS&7,W         Q. WRITE REDUNDANCY Z   8  0262  B 366 284 W     176
1140 10 46          MCW   &9,RDCT#1               INITIALIZE COUNTER  Z   7  0270  M 464 465       176
1141 10 47   TPINS  RT    INITAP,XXXX             RE-READ             Z   8  0277  M %U0 000 R     176
1142 10 48          BER   RDERR                   Q. REDUNDANT AGAIN  Z   5  0285  B 294 L         176
1143 10 49   REDXT  B     XXXX                    EXIT                Z   4  0290  B 000           176
1144 10 50   RDERR  MN    TPINS&3,BSP2&3                              Z   7  0294  D 280 304       176
1145 10 51   BSP2   BSP   INITAP                  BACKSPACE AGAIN     Z   5  0301  U %U0 B         177
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1146 10 52          S     &1,RDCT                  REDUCE COUNTER   Z   7  0306  S 466 465         177
1147 10 53          BWZ   TPINS,RDCT,B            Q. 10 SUCCESSIVE READS Z 8  0313  V 277 465 B  177
1148 10 54          MN    TPINS&3,TPHLT&6                           Z   7  0321  D 280 334         177
1149 10 55  TPHLT   H     XXXX,490                 HALT             Z   7  0328  . 000 490         177
1150 10 56          MCW   TPINS&7,*&8                              Z   7  0335  M 284 349         178
1151 10 57          RT    INITAP,XXXX              RE-READ          Z   8  0342  M %U0 000 R       178
1152 10 58          BSS   BSP1,E                   DETERMINE OPTION Z   5  0350  B 257 E           178
1153 10 59          H     XXXX,402                 HALT AGAIN       Z   7  0355  . 000 402         178
1154 10 60          B     REDXT                    EXIT             Z   4  0362  B 290             178
1155 10 61  WRTRD   SKP   SYSTAP                   ERASE TAPE       Z   5  0366  U %U1 E           178
1156 10 62          BCE   SBCTR,WRTCR-1,5          Q. FIFTY SKIPS   Z   8  0371  B 403 467 5      179
1157 10 63          A     &1,WRTCR#2               INCREASE COUNTER Z   7  0379  A 466 468         179
1158 10 64  INST2   WT    INITAP,XXXX              RE-WRITE         Z   8  0386  M %U0 000 W       179
1159 10 65          BER   BSP1                     Q. REDUNDANT AGAIN Z 5  0394  B 257 L           179
1160 10 66          B     REDXT                                     Z   4  0399  B 290             179
1161 10 67  SBCTR   S     WRTCR                    RESET COUNTER    Z   4  0403  S 468             179
1162 10 68          MN    TPINS&3,*&7                               Z   7  0407  D 280 420         180
1163 10 69          H     XXXX,460                 HALT             Z   7  0414  . 000 460         180
1164 10 70          B     INST2                                     Z   4  0421  B 386             180
1165 10 71  *
1166 10 72  * NOISE RECORD ROUTINE
1167 10 73  *
1168 10 74  NOISE   SBR   XL3                                       Z   4  0425  H 099             180
1169 10 75          SBR   NSXT&3                                    Z   4  0429  H 463             180
1170 10 76          MZ    &9,XL3                                    Z   7  0433  Y 464 099         180
1171 10 77  N2      BCE   4000-12&X3,XXXX,}        SCAN FOR GROUP MARK Z 8  0440  B IH8 000 }      181
1172 10 78          CHAIN 12                                                                MACRO
1173                BCE                                             Z   1  0448  B               GEN  181
1174                BCE                                             Z   1  0449  B               GEN  181
1175                BCE                                             Z   1  0450  B               GEN  181
1176                BCE                                             Z   1  0451  B               GEN  181
1177                BCE                                             Z   1  0452  B               GEN  181
1178                BCE                                             Z   1  0453  B               GEN  181
1179                BCE                                             Z   1  0454  B               GEN  182
1180                BCE                                             Z   1  0455  B               GEN  182
1181                BCE                                             Z   1  0456  B               GEN  182
1182                BCE                                             Z   1  0457  B               GEN  182
1183                BCE                                             Z   1  0458  B               GEN  182
1184                BCE                                             Z   1  0459  B               GEN  182
1185 10 79  NSXT    B     XXXX                                      Z   4  0460  B 000             182
1186 10 80          LTORG *                                         Z            0464
                    DCW   &9                                        Z   1  0464                  LIT  183
       1140 RDCT            #01                                     Z   1  0465                  AREA 183
                            &1                                      Z   1  0466                  LIT  183
       1157 WRTCR           #02                                     Z   2  0468                  AREA 183
1187 10 81  *
1188 10 82  *END OF CONTROL CARD ANALYSIS, READ IN MAIN LINE
1189 10 83  *
1190 10 84  CWI98   CW    3998                                      Z   4  0469  ) I98             183
1191 10 85          SW    JOBSW                                     Z   4  0473  , 199             183
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1192 10 86          B     PUT                                     Z   4   0477  B 610             183
1193 10 87   RTNJB   CW    JOBSW                                   Z   4   0481  ) 199             184
1194 10 88          B     WRTP                                    Z   4   0485  B 578             184
1195 10 89   LDOPTB RTW    SYSTAP,DOPROG          READ IN MAIN LINE Z   8   0489  L %U1 N75 R       184
1196 10 90          NOP   0                       OVERLAP          Z   4   0497  N 000             184
1197 10 91          BER   TPERR                                   Z   5   0501  B 221 L           184
1198 10 92          CW    GRPMK5,GRPMK8                           Z   7   0506  ) N74 H99         184
1199 10 93          MLC   @0@,FACTOR-3                           Z   7   0513  M M83 H45         184
1200 10 94   *
1201 10 95   *START OF MAIN LINE
1202 10 96   *
1203 10 97   BYPASS B     GET                    PROCESS BYPASSED CARDS Z   4   0520  B 538             185
1204 10 98          S     XL3&1                                   Z   4   0524  S 100             185
1205 10 99          S                                             Z   1   0528  S                 185
1206 11 00          S                                             Z   1   0529  S                 185
1207 11 01          B     CKCOM                                   Z   4   0530  B 706             185
1208 11 02   *
1209 11 03   *BEGINNING OF NEW CARD ANALYSIS
1210 11 04   *
1211 11 05   NUREC  B     PUT                    PUT LAST RECORD  Z   4   0534  B 610             185
1212 11 06   GET    SBR   GETXT&3                GET ROUTINE      Z   4   0538  H 577             185
1213 11 07          CS    INPUT&80                                Z   4   0542  / 080             186
1214 11 08          SW    INPUT&21                                Z   4   0546  , 021             186
1215 11 09          SBR   N2&6,INPUT&13                          Z   7   0550  H 446 013         186
1216 11 10          RT    INTAP,INPUT&1          READ TAPE        Z   8   0557  M %U4 001 R       186
1217 11 11          B     NOISE                  CHECK FOR NOISE  Z   4   0565  B 425             186
1218 11 12          BER   TPERR                                   Z   5   0569  B 221 L           186
1219 11 13   GETXT  B     XXXX                   EXIT             Z   4   0574  B 000             186
1220 11 14   *
1221 11 15   *IMAGE TO OUTPUT AREA
1222 11 16   *
1223 11 17   WRTP   SBR   WRTXT&3                                 Z   4   0578  H 609             187
1224 11 18          WT    OUTAP,OUTPUT&1         WRITE TAPE       Z   8   0582  M %U5 I18 W       187
1225 11 19          NOP   0                                       Z   4   0590  N 000             187
1226 11 20          BER   TPERR                                   Z   5   0594  B 221 L           187
1227 11 21          MLC   @000@,HOLDC                            Z   7   0599  M M86 M91         187
1228 11 22   WRTXT  B     XXXX                                    Z   4   0606  B 000             187
1229 11 23   PUT    SBR   PUTXT&3                 PUT ROUTINE      Z   4   0610  H 705             187
1230 11 24          MLC   HOLDC,XL3                               Z   7   0614  M M91 099         188
1231 11 25          MLC   IMAGE&80,OUTPUT&80&X3   WORK AREA TO OUTPUT Z   7   0621  M 180 II7         188
1232 11 26          CHAIN 10                                                                MACRO
1233                MLC                                           Z   1   0628  M                 GEN  188
1234                MLC                                           Z   1   0629  M                 GEN  188
1235                MLC                                           Z   1   0630  M                 GEN  188
1236                MLC                                           Z   1   0631  M                 GEN  188
1237                MLC                                           Z   1   0632  M                 GEN  188
1238                MLC                                           Z   1   0633  M                 GEN  189
1239                MLC                                           Z   1   0634  M                 GEN  189
1240                MLC                                           Z   1   0635  M                 GEN  189
1241                MLC                                           Z   1   0636  M                 GEN  189
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1242                MLC                                           Z   1  0637  M           GEN   189
1243 11 27  TPYET   A     &80,HOLDC#3                             Z   7  0638  A M88 M91       189
1244 11 28  CKTAP   BCE   WRTP,XL3-2,0          Q. WRITE YET      Z   8  0645  B 578 097 0     189
1245 11 29          BW    DCWXT, DCWSW2         Q. DCW GT 30 CHARS Z  8  0653  V J85 H92 1    190
1246 11 30          BW    SPGLIN,INITSW         Q. DA RECORD      Z   8  0661  V 692 H87 1    190
1247 11 31          CS    INPUT&80              CLEAR IMAGE AND   Z   4  0669  / 080          190
1248 11 32          SW    INPUT&21               INPUT AREAS      Z   4  0673  , 021          190
1249 11 33          MRCM  INPUT&1,IMAGE&1                         Z   7  0677  P 001 101      190
1250 11 34          BW    RTNJB,JOBSW           Q. JOB CARD       Z   8  0684  V 481 199 1    190
1251 11 35  SPGLIN S     IMAGE&5               WIPE OUT PG/LIN NUMBR Z  4  0692  S 105          191
1252 11 36          S     XL3&1                 ZERO INDEX        Z   4  0696  S 100          191
1253 11 37          S                            LOCATIONS      Z   1  0700  S              191
1254 11 38          S                                           Z   1  0701  S              191
1255 11 39  PUTXT   B     XXXX                  EXIT              Z   4  0702  B 000          191
1256 11 40  SAVE2   ORG   *                                     Z      0706   0706
1257 11 41  CKCOM   BCE   BYPASS,INPUT&6,*      Q. COMMENTS CARD  Z   8  0706  B 520 006 *    191
1258 11 42          MN    INPUT&75,CK2&7                        Z   7  0714  D 075 735      191
1259 11 43          MZ    INPUT&75,CK2&7                        Z   7  0721  Y 075 735      192
1260 11 44  CK2     BCE   BYPASS,@RSWZ@,0                       Z   8  0728  B 520 M95 0    192
1261 11 45          CHAIN 3                                                   MACRO
1262                BCE                                         Z   1  0736  B           GEN   192
1263                BCE                                         Z   1  0737  B           GEN   192
1264                BCE                                         Z   1  0738  B           GEN   192
1265 11 46          MLC   INPUT&84,IMAGE&80        ALTER NO TO FIXED FORM Z 7 0739 M 084 180  192
1266 11 47          BWZ   *&5,INPUT&6,2           Q. IS THERE LABEL Z   8  0746  V 758 006 2    192
1267 11 48          B     PROLBL                  PROCESS LABEL     Z   4  0754  B V38          193
1268 11 49          MCW   INPUT&18,IMAGE&16       MNEMONIC TO FIXED FORM Z 7 0758 M 018 116  193
1269 11 50          SW    SCANSW                  RESET SCAN SWITCH Z   4  0765  , N15          193
1270 11 51          MLC   @000@,FREEA#3                         Z   7  0769  M M86 M98      193
1271 11 52          LCA   BLANK4,EQUADD          RETRIEVE TABLE FUNCTN Z 7 0776 L H62 N11   193
1272 11 53          MCW   @I9I@,XL1               THAT WAS      Z   7  0783  M N01 089      193
1273 11 54  PLSCAN BCE   PLUSFD,INPUT&15&X1,&     GENERATED BY PASS 3 Z 8 0790 B 817 0/5 &  194
1274 11 55  GOBK    C     XL1,@I9G@                               Z   7  0798  C 089 N04      194
1275 11 56          A     @I99@,XL1                               Z   7  0805  A N07 089      194
1276 11 57          BL    PLSCAN                                  Z   5  0812  B 790 T        194
1277 11 58  PLUSFD BCE   GOBK,INPUT&14&X1,&                      Z   8  0817  B 798 0/4 &    194
1278 11 59          SW    EQUADD&1&X1                             Z   4  0825  , N/2          194
1279 11 60          MCW   INPUT&15,EQUADD#4                       Z   7  0829  M 015 N11      195
1280 11 61          S     XL1&2                                   Z   4  0836  S 091          195
1281 11 62          BW    INSTR,EQUADD            Q. REGULAR INSTRUCTION Z 8 0840 V N75 N11 1 195
1282 11 63          BCE   CTRLOP,EQUADD,          Q. CONTROL OP     Z   8  0848  B C61 N11      195
1283 11 64          B     INSTR                                   Z   4  0856  B N75          195
1284 11 65  *
1285 11 66  *SCAN FOR COMMA OR BLANK
1286 11 67  *
1287 11 68  COMSCN SBR   CSCNXT&3                INDEX LOCATION 3  Z   4  0860  H 932          195
1288 11 69          S     XL3&1                    CONTAINS TOTAL  Z   4  0864  S 100          195
1289 11 70          SW    INPUT&21&X2,SCANSW       POSITIONS SCANNED Z 7 0868  , 0K1 N15     196
1290 11 71  TSTCOM A     &1,XL2                   INCLUDING COMMA OR Z 7 0875  A N12 094     196
1291 11 72          A     &1,XL3                   BLANK FOR OPERAND Z 7 0882  A N12 099     196
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1292 11 73          BCE   PRSCXT,INPUT&20&X2,,          INDEX LOCATION 2       Z   8  0889  B 925 0K0 ,        196
1293 11 74          C     INPUT&21&X2,BLANK2             CONTAINS TOTAL        Z   7  0897  C 0K1 H60          196
1294 11 75          BE    CSCNXT                         POSITIONS SCANNED FOR Z   5  0904  B 929 S            197
1295 11 76          C     XL2,@54@                       ALL OPERANDS          Z   7  0909  C 094 N14          197
1296 11 77          BE    SCNERR                        SCANSW SHOWS WHETHER   Z   5  0916  B 933 S            197
1297 11 78          B     TSTCOM                         SCAN TERMINATED BY    Z   4  0921  B 875              197
1298 11 79   PRSCXT CW    SCANSW#1                       COMMA OR TWO BLANKS   Z   4  0925  ) N15              197
1299 11 80   CSCNXT B     XXXX                                                 Z   4  0929  B 000              197
1300 11 81   SCNERR MZ    BBIT,IMAGE&5                                         Z   7  0933  Y 188 105          197
1301 11 82          BCE   CSCNXT,IMAGE&75,3                                    Z   8  0940  B 929 175 3        198
1302 11 83          B     NUREC                                                Z   4  0948  B 534              198
1303 11 84   *
1304 11 85   *CONVERT FREE TO FIXED FORM
1305 11 86   *
1306 11 87   FR2FIX SBR   FR2FXT&3                                             Z   4  0952  H S32              198
1307 11 88          MCW   BLANK,W6AREA                                        Z   7  0956  M H59 H77          198
1308 11 89          MCW   XL2&1,XL3&1                                         Z   7  0963  M 095 100          198
1309 11 90   SCNDEX C     XL3,@04@                      ANY CHARACTER ADJ      Z   7  0970  C 099 N17          198
1310 11 91          BH    DOADRS                         OR INDEXING           Z   5  0977  B /50 U            199
1311 11 92          BE    CKADJ                                                Z   5  0982  B |17 S            199
1312 11 93          C     INPUT&18&X3,@&X@              Q. INDEXING            Z   7  0987  C 0A8 N19          199
1313 11 94          BU    CKADJ                         PROCESS INDEXING       Z   5  0994  B |17 /            199
1314 11 95          MN    INPUT&19&X3,IMAGE&27&X1                              Z   7  0999  D 0A9 1S7          199
1315 11 96          A     &K4K-3,XL3                                           Z   7  1006  A N22 099          199
1316 11 97          B     SCNDEX                                               Z   4  1013  B 970              200
1317 11 98   CKADJ   BCE   CKMIN,INPUT&18&X3,&                                 Z   8  1017  B /34 0A8 &        200
1318 11 99   SCANB  EQU   *-1                             CHARACTER ADJUSTMENT Z      1023
1319 12 00          BCE                                  OR AREA DEFINITION   Z   1  1025  B                200
1320 12 01          BCE                                  LITERAL CODE         Z   1  1026  B                200
1321 12 02   DOMIN  BCE   ISADJ,INPUT&18&X3,-                                  Z   8  1027  B |51 0A8 -        200
1322 12 03          BCE                                                       Z   1  1035  B                200
1323 12 04          BCE                                                       Z   1  1036  B                200
1324 12 05          BCE   ISADJ,INPUT&18&X3,#                                 Z   8  1037  B |51 0A8 #        201
1325 12 06          BCE                                                       Z   1  1045  B                201
1326 12 07          BCE                                                       Z   1  1046  B                201
1327 12 08          B     DOADRS                                              Z   4  1047  B /50              201
1328 12 09   ISADJ   SBR   W3AREA                       PROCESS CHARACTER      Z   4  1051  H H74              201
1329 12 10   PROADJ S     &SCANB,W3AREA                  ADJUSTMENT            Z   7  1055  S N25 H74          201
1330 12 11          MLC   XL2,HOLD3                                           Z   7  1062  M 094 H65          201
1331 12 12          MLNS  W3AREA,XL2                                          Z   7  1069  D H74 094          202
1332 12 13          MLC   @00@                                               Z   4  1076  M N27              202
1333 12 14          MLC   INPUT&19&X3,W3AREA-4&X2                           Z   7  1080  M 0A9 HP0          202
1334 12 15          S     XL2&1,XL3&1                                         Z   7  1087  S 095 100          202
1335 12 16          MZ    INPUT&20&X3,W3AREA-4&X2                           Z   7  1094  Y 0B0 HP0          202
1336 12 17          MN    INPUT&20&X3,W6AREA                                  Z   7  1101  D 0B0 H77          202
1337 12 18          SW    IMAGE&24&X1                                         Z   4  1108  , 1S4              203
1338 12 19          A     W3AREA-4&X2,IMAGE&26&X1       ADD CHAR ADJUSTMENT TO Z   7  1112  A HP0 1S6          203
1339 12 20          CW    IMAGE&24&X1                    FIXED FORM            Z   4  1119  ) 1S4              203
1340 12 21          MLC   HOLD3,XL2                                           Z   7  1123  M H65 094          203
1341 12 22          B     SCNDEX                                              Z   4  1130  B 970              203
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1342 12 23   CKMIN   SBR   W3AREA                  ACCOUNT FOR POSSIBLE  Z  4  1134  H H74              203
1343 12 24           BCE   DOMIN,INPUT&18&X3,-      MULTI-CHAR ADJ OF    Z  8  1138  B |27 0A8 -        203
1344 12 25           B     PROADJ                   &1-2 TYPE            Z  4  1146  B |55               204
1345 12 26   DOADRS  S     FREEA,XL3                PROCESS ADDRESS      Z  7  1150  S M98 099           204
1346 12 27           C     XL3,&007                 Q. OLLEGAL ADDRESS   Z  7  1157  C 099 N30          204
1347 12 28           BL    FIXER                     LENGTH              Z  5  1164  B S33 T              204
1348 12 29           A     FREEA,XL3                                     Z  7  1169  A M98 099           204
1349 12 30           MZ    BLANK,XL3                                     Z  7  1176  Y H59 099           204
1350 12 31           MCW   @|@,INPUT&20&X3                              Z  7  1183  M N31 0B0           205
1351 12 32           MLC   FREEA,XL3                                     Z  7  1190  M M98 099           205
1352 12 33           MRCM  INPUT&21&X3,IMAGE&17&X1  MOVE ADDRESS TO IMAGE Z  7  1197  P 0B1 1/7           205
1353 12 34           SBR   XL3                                           Z  4  1204  H 099               205
1354 12 35           MZ    ABBIT,XL3                                     Z  7  1208  Y 189 099           205
1355 12 36           MCW   BLANK,4000-1&X3                             Z  7  1215  M H59 II9           205
1356 12 37           MN    W6AREA,IMAGE&23&X1                          Z  7  1222  D H77 1S3           206
1357 12 38   FR2FXT  B     XXXX                     EXIT                 Z  4  1229  B 000               206
1358 12 39   FIXER   SW    FIXSW#1                                       Z  4  1233  , N32              206
1359 12 40   OPDER   MCW   @000@,XL3                CODE STATEMENT       Z  7  1237  M M86 099           206
1360 12 41           MZ    ABIT,IMAGE&5              BAD BUT PROCESSABLE  Z  7  1244  Y 187 105          206
1361 12 42           BCE   *&8,XL1,0                                     Z  8  1251  B S66 089 0         206
1362 12 43           MCW   @003@,XL3                                     Z  7  1259  M N35 099           207
1363 12 44           MCW   @###@,IMAGE&70&X3                           Z  7  1266  M N38 1G0           207
1364 12 45           MZ    ABBIT,IMAGE&1&X3                            Z  7  1273  Y 189 1?1           207
1365 12 46           BW    FR2FXT,FIXSW                                Z  8  1280  V S29 N32 1         207
1366 12 47           B     LTER2                                       Z  4  1288  B U09               207
1367 12 48   *
1368 12 49   *SCAN FOR @ SIGN
1369 12 50   *
1370 12 51   SCANAT  SBR   SCNATX&3                                    Z  4  1292  H T85               207
1371 12 52           SW    INPUT&21&X2,SCANSW       SCAN IS EXECUTED FROM Z  7  1296  , 0K1 N15          208
1372 12 53           ZA    @510@,XL3&1               RIGHT TO LEFT       Z  7  1303  ? N41 100           208
1373 12 54   A1ALF   BCE   NDASCN,INPUT&21&X3,@                          Z  8  1310  B T29 0B1 @         208
1374 12 55           S     &10,XL3&1                                     Z  7  1318  S N43 100           208
1375 12 56           B     A1ALF                                         Z  4  1325  B T10               208
1376 12 57   NDASCN  C     XL2,XL3                  Q. NO ENDING @ SIGN  Z  7  1329  C 094 099           209
1377 12 58           BE    LTERR                                         Z  5  1336  B T94 S             209
1378 12 59           BCE   SETSW,INPUT&22&X3,,      Q. IS ENDING @ SIGN  Z  8  1341  B T86 0B2 ,         209
1379 12 60           C     INPUT&23&X3,BLANK2        FOLLOWED BY COMMA OR Z  7  1349  C 0B3 H60          209
1380 12 61           BU    LTERR                     TWO BLANKS           Z  5  1356  B T94 /             209
1381 12 62   SXL     S     XL2&1,XL3&1                                   Z  7  1361  S 095 100           209
1382 12 63           A     &2,XL3                                        Z  7  1368  A N44 099           210
1383 12 64           A     XL3,XL2                                       Z  7  1375  A 099 094           210
1384 12 65   SCNATX  B     XXXX                     EXIT                 Z  4  1382  B 000               210
1385 12 66   SETSW   CW    SCANSW                                        Z  4  1386  ) N15              210
1386 12 67           B     SXL                                           Z  4  1390  B T61               210
1387 12 68   *
1388 12 69   *IMPROPERLY CODED STATEMENT ROUTINE
1389 12 70   *
1390 12 71   LTERR   MLZS  ABIT,IMAGE&5             MARK STATEMENT       Z  7  1394  Y 187 105          210
1391 12 72           CW    FIXSW                     BAD BUT PROCESSABLE  Z  4  1401  ) N32              210
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1392 12 73          B     OPDER                                    Z  4  1405  B S37              211
1393 12 74   LTER2  B     COMSCN                                   Z  4  1409  B 860              211
1394 12 75          MCW   @@@,INPUT&20&X3                         Z  7  1413  M N45 0B0          211
1395 12 76          A     &1,XL3                                   Z  7  1420  A N12 099          211
1396 12 77          B     SCNATX                                   Z  4  1427  B T82              211
1397 12 78   *
1398 12 79   *PLACE LITERALS ON MASTER TAPE
1399 12 80   *
1400 12 81   CALL   BW    CKLOR,LITSW#1            Q. ANY LITERALS Z  8  1431  V U85 N46 1      211
1401 12 82          RT    SYSTAP,INPUT&1           READ IN PROCESS Z  8  1439  M %U1 001 R      212
1402 12 83          RTW   SYSTAP,DOPROG             LITERALS OVERLAP Z  8  1447  L %U1 N75 R      212
1403 12 84          NOP   0                                        Z  4  1455  N 000              212
1404 12 85          BER   TPERR                                    Z  5  1459  B 221 L            212
1405 12 86          B     OVLLIT                   GO TO ROUTINE   Z  4  1464  B N75              212
1406 12 87   RECALL RTW   SYSTAP,DOPROG            RECALL MAIN LINE Z  8  1468  L %U1 N75 R      212
1407 12 88          NOP   0                         OVERLAP         Z  4  1476  N 000              213
1408 12 89          BER   TPERR                                    Z  5  1480  B 221 L            213
1409 12 90   CKLOR  BCE   BYPASS,IMAGE&75,          Q. LITERAL ORIGIN Z  8  1485  B 520 175      213
1410 12 91          BCE   NUREC,IMAGE&75,C         Q. EXECUTE      Z  8  1493  B 534 175 C      213
1411 12 92          RT    SYSTAP,INPUT&1           SKIP PAST OVERLAPS Z  8  1501  M %U1 001 R   213
1412 12 93          RT    SYSTAP,INPUT&1            AND READ IN END OF Z  8  1509  M %U1 001 R   214
1413 12 94          RTW   SYSTAP,EOJRT              JOB OVERLAP     Z  8  1517  L %U1 706 R      214
1414 12 95          NOP   0                                        Z  4  1525  N 000              214
1415 12 96          BER   TPERR                                    Z  5  1529  B 221 L            214
1416 12 97          B     EOJRT                                    Z  4  1534  B 706              214
1417 12 98   *
1418 12 99   *GENERATE ENTRY ADDRESS FOR LABELS
1419 13 00   *
1420 13 01   PROLBL SBR   XTLABL&3                                 Z  4  1538  H V77              214
1421 13 02          MLC   INPUT&11,IMAGE&13                       Z  7  1542  M 011 113          215
1422 13 03          MLC   IMAGE&13,W6AREA                         Z  7  1549  M 113 H77          215
1423 13 04          B     PROLAB                                   Z  4  1556  B W47              215
1424 13 05          MLC   W3AREA,IMAGE&56                        Z  7  1560  M H74 156          215
1425 13 06          A     &1,TOTLBL                                Z  7  1567  A N12 198          215
1426 13 07   XTLABL B     XXXX                                     Z  4  1574  B 000              215
1427 13 08   *
1428 13 09   *CONVERT FREE FORM NUMBER TO FIVE CHARACTERS
1429 13 10   *
1430 13 11   CVRT5  SBR   CVT5XT&3                                 Z  4  1578  H V93              216
1431 13 12          BCE   *&5,W5AREA,&                            Z  8  1582  B V94 H76 &        216
1432 13 13   CVT5XT B     XXXX                                     Z  4  1590  B 000              216
1433 13 14          ZA    W5AREA-1,W5AREA                          Z  7  1594  ? H75 H76          216
1434 13 15          B     CVRT5&4                                  Z  4  1601  B V82              216
1435 13 16   *
1436 13 17   * CHECK FOR FINAL OPERAND
1437 13 18   *
1438 13 19   FNLOP  SBR   FNLXT&3                   Q. FINAL OPERAND Z  4  1605  H W27          216
1439 13 20          BW    FNLXT,SCANSW              FOLLOWED BY TWO Z  8  1609  V W24 N15 1      216
1440 13 21          MZ    ABIT,IMAGE&5              BLANKS          Z  7  1617  Y 187 105        217
1441 13 22   FNLXT  B     XXXX                                     Z  4  1624  B 000              217
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 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
1442 13 23   *
1443 13 24   *CONVERT FLOATING A OPERAND ACTUAL ADDRESS TO FIVE CHARACTERS
1444 13 25   *
1445 13 26   CVTFLA SBR   FLAXT&3                                     Z   4  1628  H W46              217
1446 13 27         ZA    IMAGE&21,W5AREA                             Z   7  1632  ? 121 H76          217
1447 13 28         B     CVRT5                       LINK TO SUBROUTINE Z   4  1639  B V78              217
1448 13 29   FLAXT B     XXXX                                        Z   4  1643  B 000              217
1449 13 30   *
1450 13 31   *CONVERT SYMBOLS TO THREE CHARACTER ENTRY ADDRESS
1451 13 32   *
1452 13 33   PROLAB SBR   LBLXT&3                                     Z   4  1647  H Y10              217
1453 13 34         ZA    &2,HOLD2                                    Z   7  1651  ? N44 H64          218
1454 13 35         BCE   *&5,W6AREA,                ADD SUFFIX CHAR TO Z   8  1658  B W70 H77          218
1455 13 36         B     *&8                         LABELS FIVE CHARS Z   4  1666  B W77              218
1456 13 37         MCW   SFXHLD,W6AREA               OR LESS           Z   7  1670  M H86 H77          218
1457 13 38         ZA    W6AREA-2,HOLD4                              Z   7  1677  ? H75 H71          218
1458 13 39         A     W6AREA,HOLD4                FOLD SYMBOL TO    Z   7  1684  A H77 H71          219
1459 13 40         A     W6AREA,HOLD4-2              FOUR CHARACTERS   Z   7  1691  A H77 H69          219
1460 13 41         MLZS  BLANK,HOLD4                                 Z   7  1698  Y H59 H71          219
1461 13 42         ZA    FACTOR,HOLD7                MULTIPLY BY FACTOR Z   7  1705  ? H48 H84          219
1462 13 43   MPYLP MLNS  HOLD7,HOLD1                                 Z   7  1712  D H84 H85          219
1463 13 44         ZA                                                Z   1  1719  ?                  219
1464 13 45   MULT  BCE   NXTDGT,HOLD1,?                              Z   8  1720  B X46 H85 ?        220
1465 13 46         A     HOLD4,HOLD7-2                               Z   7  1728  A H71 H82          220
1466 13 47         S     &1,HOLD1                                    Z   7  1735  S N12 H85          220
1467 13 48         B     MULT                                        Z   4  1742  B X20              220
1468 13 49   NXTDGT S     &1,HOLD2                                    Z   7  1746  S N12 H64          220
1469 13 50         BWZ   MPYLP,HOLD2,B                               Z   8  1753  V X12 H64 B        221
1470 13 51         S     W5AREA                                      Z   4  1761  S H76              221
1471 13 52         BAV   *&1                                         Z   5  1765  B X70 Z            221
1472 13 53   LOOP1 A     &96,HOLD7-5                 FOLD FIVE CHARACTER Z   7  1770  A N48 H79          221
1473 13 54         BAV   LOOP1                       RESULT TO THREE   Z   5  1777  B X70 Z            221
1474 13 55         MLZS  HOLD7-6,W3AREA              CHARACTER TABLE ENTRY Z   7  1782  Y H78 H74          221
1475 13 56         MLC   HOLD7-3                     ADDRESS           Z   4  1789  M H81              222
1476 13 57         MLNS  HOLD7-5,*&4                                 Z   7  1793  D H79 Y03          222
1477 13 58         MLZS  ZONE,W3AREA-2                               Z   7  1800  Y 189 H72          222
1478 13 59   LBLXT B     XXXX                                        Z   4  1807  B 000              222
1479 13 60   *
1480 13 61   *PROCESS DCW, DC, DSA CARDS
1481 13 62   *
1482 13 63   DCWCD BCE   DCWALF,INPUT&21,@               Q. ALPHA CONSTANT Z   8  1811  B K44 021 @        222
1483 13 64         BCE   ARDEF,INPUT&21,#               Q. AREA DEFINITION Z   8  1819  B L01 021 #        222
1484 13 65         BCE   CKDCW,INPUT&21,&               Q. NUMERIC LITERAL Z   8  1827  B Y58 021 &        223
1485 13 66         BCE   CKDCW,INPUT&21,-                                 Z   8  1835  B Y58 021 -        223
1486 13 67         MLC   INPUT&72,INPUT&73             SHIFT RIGHT       Z   7  1843  M 072 073          223
1487 13 68         MCW   @&@                                         Z   4  1850  M N49              223
1488 13 69         SW    DCWSW                         SET NO ZONING SWITCH Z   4  1854  , H89              223
1489 13 70   CKDCW B     COMSCN                        SCAN FOR BLANK    Z   4  1858  B 860              223
1490 13 71         BCE   ISDSA,INPUT&22,@              Q. ADCON OF LITERAL Z   8  1862  B Y90 022 @        224
1491 13 72         B     FNLOP                         CHECK LAST OPERAND Z   4  1870  B W05              224
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1492 13 73           BCE   ISDSA,IMAGE&75,J          Q. DSA STATEMENT  Z  8  1874  B Y90 175 J      224
1493 13 74           BWZ   ISDCW,INPUT&22,2          Q. DC, DCW STATEMENT Z 8  1882  V K71 022 2      224
1494 13 75    *
1495 13 76    *PROCESS DSA CARDS, SUBSET OF DCW
1496 13 77    *
1497 13 78    ISDSA  MLC   @011@,XL1                                 Z  7  1890  M N52 089          224
1498 13 79           MLNS  &2,IMAGE&75               CODE RECORD     Z  7  1897  D N44 175          225
1499 13 80           MZ    INPUT&21,IMAGE&27                        Z  7  1904  Y 021 127          225
1500 13 81           MCW   BLANK,INPUT&21                           Z  7  1911  M H59 021          225
1501 13 82           BWZ   *&5,IMAGE&75,K                          Z  8  1918  V Z30 175 K        225
1502 13 83           B     *&8                                      Z  4  1926  B Z37              225
1503 13 84           MZ    BLANK,IMAGE&75                           Z  7  1930  Y H59 175          226
1504 13 85           SW    DSASW2                  SET DSA SWITCH   Z  4  1937  , H91             226
1505 13 86           MLC   @001@,FREEA                              Z  7  1941  M N55 M98          226
1506 13 87           MCW   INPUT&34,IMAGE&53                       Z  7  1948  M 034 153          226
1507 13 88           BCE   DSADC,INPUT&22,@                        Z  8  1955  B L54 022 @        226
1508 13 89           BCE   DSADC,INPUT&22,&                        Z  8  1963  B L54 022 &        227
1509 13 90           BCE   DSADC,INPUT&22,-                        Z  8  1971  B L54 022 -        227
1510 13 91           B     FR2FIX                  CONVERT FREE TO FIXED Z 4  1979  B 952          227
1511 13 92           MZ    IMAGE&27,INPUT&21                        Z  7  1983  Y 127 021          227
1512 13 93    DSAX1  MZ    IMAGE&27,IMAGE&40                        Z  7  1990  Y 127 140          227
1513 13 94           MLC   @03@,IMAGE&7              INSERT COUNT    Z  7  1997  M N57 107          228
1514 13 95           MLC   @03@,XL2                                 Z  7  2004  M N57 094          228
1515 13 96    CKAOP  BCE   DCWAST,INPUT&6,           Q. ANY LABEL    Z  8  2011  B !68 006          228
1516 13 97           BWZ   DCWAST,IMAGE&75,S         Q. LITERAL      Z  8  2019  V !68 175 S        228
1517 13 98           BWZ   *&5,INPUT&6,2             Q. ACTUAL ADDRESS Z 8  2027  V !39 006 2      228
1518 13 99           B     DCWAST                                   Z  4  2035  B !68             229
1519 14 00           MLC   INPUT&10,IMAGE&21         PROCESS ACTUAL  Z  7  2039  M 010 121          229
1520 14 01           B     CVTFLA                    ADDRESS         Z  4  2046  B W28              229
1521 14 02    DCWACT MLC   W5AREA,IMAGE&21           ADDRESS TO FIXED Z 7  2050  M H76 121          229
1522 14 03           MLC   W5AREA,IMAGE&61           FORM            Z  7  2057  M H76 161          229
1523 14 04           B     CKMACR                                   Z  4  2064  B !89             229
1524 14 05    DCWAST A     XL2,ORGCTR                BUMP ORIGIN COUNTER Z 7  2068  A 094 H58      230
1525 14 06    BMPCTR MCW   @*@,IMAGE&17              SET TO DCW *    Z  7  2075  M N58 117          230
1526 14 07    DSETAD A     ORGCTR,IMAGE&61           ASSIGN ADDRESS  Z  7  2082  A H58 161          230
1527 14 08    CKMACR BCE   NUREC,IMAGE&75,P          Q. EQU STATEMENT Z 8  2089  B 534 175 P      230
1528 14 09           BCE   NUREC,IMAGE&75,X          Q. DS STATEMENT Z  8  2097  B 534 175 X      230
1529 14 10           BW    DCWXT,DSASW2              Q. DSA STATEMENT Z  8  2105  V J85 H91 1      231
1530 14 11           MLC   INPUT&51,IMAGE&53         MOVE CONSTANT TO Z 7  2113  M 051 153          231
1531 14 12           MLC                             FIXED FORM      Z  1  2120  M                  231
1532 14 13           MLC                                             Z  1  2121  M                  231
1533 14 14           MLC   XL2,IMAGE&7              COUNT TO FIXED FORM Z 7  2122  M 094 107          231
1534 14 15           C     XL2,@030@                 Q. COUNT GREATER THAN Z 7  2129  C 094 N61      231
1535 14 16           BH    DCWXT                     30              Z  5  2136  B J85 U            231
1536 14 17           MN    @8@,INPUT&75              WRITE FREE FORM RECORD Z 7  2141  D N62 075      232
1537 14 18           BWZ   *&8,IMAGE&75,B            ON TAPE         Z  8  2148  V J63 175 B        232
1538 14 19           MZ    IMAGE&75,INPUT&75                        Z  7  2156  Y 175 075          232
1539 14 20           MCW   HOLDC,XL3                                Z  7  2163  M M91 099          232
1540 14 21           MCW   INPUT&80,OUTPUT&80&X3                    Z  7  2170  M 080 II7          232
1541 14 22           SW    DCWSW2                                   Z  4  2177  , H92             233
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1542 14 23           B     TPYET                                     Z   4  2181  B 638             233
1543 14 24   DCWXT    CW    DSASW2,DCWSW2              RESET SWITCHES Z   7  2185  ) H91 H92         233
1544 14 25           BW    *&5,LITSW2                                Z   8  2192  V K04 H90 1       233
1545 14 26           B     NUREC                                     Z   4  2200  B 534             233
1546 14 27           BCE   LITRTN,INPUT&21,@                         Z   8  2204  B P31 021 @       233
1547 14 28           BCE   LTGEN,INPUT&22,&      Q. ADCON OF LITERAL Z   8  2212  B M00 022 &       234
1548 14 29           BCE   LTGEN,INPUT&22,-                         Z   8  2220  B M00 022 -       234
1549 14 30           BCE   LTGEN,INPUT&22,@                         Z   8  2228  B M00 022 @       234
1550 14 31           B     LITRTN                                    Z   4  2236  B P31             234
1551 14 32   PDCWLF  S     XL2&2                                     Z   4  2240  S 096             234
1552 14 33   DCWALF  B     SCANAT                SCAN FOR ENDING @ SIGN Z   4  2244  B S92            234
1553 14 34           B     FNLOP                 CHECK LAST OPERAND  Z   4  2248  B W05            235
1554 14 35           BW    ACNRT,DSASW2          Q. ADCON OF LITERAL Z   8  2252  V L62 H91 1      235
1555 14 36           S     &30,XL2&1                                 Z   7  2260  S N64 095        235
1556 14 37           B     CKAOP                                     Z   4  2267  B !11            235
1557 14 38   ISDCW   S     &20,XL2&1                                 Z   7  2271  S N66 095        235
1558 14 39           BW    NOZONE,DCWSW          Q. CONSTANT ZONED   Z   8  2278  V K93 H89 1      235
1559 14 40           MLZS  INPUT&21,INPUT&21&X2  ZONE CONSTANT       Z   7  2286  Y 021 0K1        236
1560 14 41   NOZONE  CW    DCWSW                                     Z   4  2293  ) H89            236
1561 14 42           B     CKAOP                                     Z   4  2297  B !11            236
1562 14 43   ARDEF   SW    INPUT&22              PROCESS AREA        Z   4  2301  , 022            236
1563 14 44           ZA    INPUT&24,W5AREA                           Z   7  2305  ? 024 H76        236
1564 14 45           B     CVRT5                                     Z   4  2312  B V78            236
1565 14 46           MLZS  ABBIT,IMAGE&4         CODE RECORD         Z   7  2316  Y 189 104        236
1566 14 47           MLNS  W5AREA,XL2                                Z   7  2323  D H76 094        237
1567 14 48           MLC                                             Z   1  2330  M                237
1568 14 49           C     XL2,@053@             Q. ILLEGAL LENGTH   Z   7  2331  C 094 N69        237
1569 14 50           BH    CKAOP                                     Z   5  2338  B !11 U          237
1570 14 51           MZ    BBIT,IMAGE&5          MARK BAD STATEMENT  Z   7  2343  Y 188 105        237
1571 14 52           B     CKAOP                                     Z   4  2350  B !11            237
1572 14 53   DSADC   BCE   PDCWLF,INPUT&22,@      Q. ADCON OF ALPHA LIT Z 8  2354  B K40 022 @      237
1573 14 54   ACNRT   S     &10,XL3&1                                 Z   7  2362  S N43 100        238
1574 14 55           MCW   XL3,W3AREA                                Z   7  2369  M 099 H74        238
1575 14 56           C     XL3,@006@             Q. LARGE LITERAL    Z   7  2376  C 099 N72        238
1576 14 57           BL    DOBIG                                     Z   5  2383  B A57 T          238
1577 14 58           BCE   XALF1,INPUT&22,@      Q. ALPHA LITERAL    Z   8  2388  B ?93 022 @      238
1578 14 59           B     XLIT1                                     Z   4  2396  B B82            238
1579 14 60   LTGEN   B     PUT                   PUT ADCON           Z   4  2400  B 610            239
1580 14 61           MCW   @/@,IMAGE&75          SET UP LITERAL      Z   7  2404  M N73 175        239
1581 14 62           MCW   LAREA&72,INPUT&72       TO BE PROCESSED   Z   7  2411  M H31 072        239
1582 14 63           MCW                         NOTE. ADDRESS CONSTANT Z 1 2418  M                239
1583 14 64           MCW                          LOGIC MAKES IT     Z   1  2419  M                239
1584 14 65           MCW                          RECURSIVE          Z   1  2420  M                239
1585 14 66           MCW   LAREA&74,LAREA&73                         Z   7  2421  M H33 H32        239
1586 14 67           B     PROLBL                                    Z   4  2428  B V38            240
1587 14 68           S     XL2&2                                     Z   4  2432  S 096            240
1588 14 69           S                                               Z   1  2436  S                240
1589 14 70           B     DCWCD                                     Z   4  2437  B Y11            240
1590 14 71   *
1591 14 72   *CALL IN DA ROUTINE
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

1592 14 73   *
1593 14 74   DARTN  RTW   SYSTAP,DOPROG          CALL DA ROUTINE  Z   8  2441  L %U1 N75 R       240
1594 14 75          NOP   0                                       Z   4  2449  N 000             240
1595 14 76          BER   TPERR                                   Z   5  2453  B 221 L           240
1596 14 77          B     DASTMT                  GO TO DA ROUTINE Z   4  2458  B N75            241
1597 14 78   FINDA  RTW   SYSTAP,DOPROG                           Z   8  2462  L %U1 N75 R       241
1598 14 79          NOP   0                                       Z   4  2470  N 000            241
1599 14 80          BER   TPERR                                   Z   5  2474  B 221 L          241
1600 14 81          B     CKCOM                                   Z   4  2479  B 706            241
1601 14 82          LTORG *                                       Z          2483
                    DCW   @0@                                     Z   1  2483            LIT   241
                          @000@                                   Z   3  2486            LIT   241
                          &80                                     Z   2  2488            LIT   242
       1243  HOLDC        #03                                     Z   3  2491            AREA  242
                          @RSWZ@                                  Z   4  2495            LIT   242
       1270  FREEA        #03                                     Z   3  2498            AREA  242
                          @I9I@                                   Z   3  2501            LIT   242
                          @I9G@                                   Z   3  2504            LIT   242
                          @I99@                                   Z   3  2507            LIT   242
       1279  EQUADD       #04                                     Z   4  2511            AREA  243
                          &1                                      Z   1  2512            LIT   243
                          @54@                                    Z   2  2514            LIT   243
       1298  SCANSW       #01                                     Z   1  2515            AREA  243
                          @04@                                    Z   2  2517            LIT   243
                          @&X@                                    Z   2  2519            LIT   243
       1315               &K4K-3                                  Z   3  2522  I97       ADCON 243
       1329               &SCANB                                  Z   3  2525  |23       ADCON 244
                          @00@                                    Z   2  2527            LIT   244
                          &007                                    Z   3  2530            LIT   244
                          @|@                                     Z   1  2531            LIT   244
       1358  FIXSW        #01                                     Z   1  2532            AREA  244
                          @003@                                   Z   3  2535            LIT   244
                          @###@                                   Z   3  2538            LIT   244
                          @510@                                   Z   3  2541            LIT   245
                          &10                                     Z   2  2543            LIT   245
                          &2                                      Z   1  2544            LIT   245
                          @@@                                     Z   1  2545            LIT   245
       1400  LITSW        #01                                     Z   1  2546            AREA  245
                          &96                                     Z   2  2548            LIT   245
                          @&@                                     Z   1  2549            LIT   245
                          @011@                                   Z   3  2552            LIT   246
                          @001@                                   Z   3  2555            LIT   246
                          @03@                                    Z   2  2557            LIT   246
                          @*@                                     Z   1  2558            LIT   246
                          @030@                                   Z   3  2561            LIT   246
                          @8@                                     Z   1  2562            LIT   246
                          &30                                     Z   2  2564            LIT   246
                          &20                                     Z   2  2566            LIT   247
                          @053@                                   Z   3  2569            LIT   247
                          @006@                                   Z   3  2572            LIT   247
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					@/@	Z	1	2573		LIT	247
1602	14	83	GRPMK5	DCW	@}@ SYSTEM GROUP MARK	Z	1	2574			247
1603	14	84		EX	DOZERO	Z			B 000		248

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 SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

1604 14 85           JOB   1401 AUTOCODER-PASS 4 PROCESS JOB/CTL  -VERSION 3
1605 14 86   *
1606 14 87   *PROCESS CONTROL CARD
1607 14 88   *
1608 14 89   DOPROG ORG   *                                           Z      2575   2575
1609 14 90   START  CS    INPUT&84                                    Z   4  2575  / 084              251
1610 14 91          CS    3999                                        Z   4  2579  / I99              251
1611 14 92          SW    INPUT&21,INPUT&81          SET WORD MARKS IN Z   7  2583  , 021 081         251
1612 14 93          SW    IMAGE&1,IMAGE&6             FIXED FORM IMAGE AREA Z 7  2590  , 101 106     251
1613 14 94          SW    IMAGE&8,IMAGE&14                            Z   7  2597  , 108 114         251
1614 14 95          SW    IMAGE&17,IMAGE&28                           Z   7  2604  , 117 128         251
1615 14 96          SW    IMAGE&39,IMAGE&57                           Z   7  2611  , 139 157         252
1616 14 97          SW    IMAGE&62,IMAGE&67                           Z   7  2618  , 162 167         252
1617 14 98          SW    IMAGE&23                                    Z   4  2625  , 123             252
1618 14 99          SW    GRPMK1,GRPMK8              INITIALIZE GROUP MARKS Z 7  2629  , 085 H99      252
1619 15 00          SW    GRPMK3,GRPMK4                               Z   7  2636  , H44 185         252
1620 15 01          CW    INITSW                                      Z   4  2643  ) H87             252
1621 15 02          RWD   INTAP                                       Z   5  2647  U %U4 R           253
1622 15 03          RWD   OUTAP                                       Z   5  2652  U %U5 R           253
1623 15 04          RWD   LITAPE                                      Z   5  2657  U %U6 R           253
1624 15 05          MLC   @000@,HOLDC                                 Z   7  2662  M R16 M91        253
1625 15 06          B     GET                        GET JOB CARD     Z   4  2669  B 538            253
1626 15 07          MCW   INPUT&80,IMAGE&21           PROCESS JOB CARD Z   7  2673  M 080 121        253
1627 15 08          MCW   @I@,IMAGE&75                 IDENTIFICATION Z   7  2680  M R17 175        254
1628 15 09          SW    3998                                        Z   4  2687  , I98            254
1629 15 10          B     GET                        GET SECOND RECORD Z   4  2691  B 538            254
1630 15 11          BCE   NOCTL,INPUT&6,*            Q. COMMENTS CARD Z   8  2695  B Q71 006 *      254
1631 15 12          C     INPUT&18,@CTL@             Q. CONTROL CARD  Z   7  2703  C 018 R20        254
1632 15 13          BU    NOCTL                                       Z   5  2710  B Q71 /           254
1633 15 14          MLNS  INPUT&21,CTL3&7            CHECK PROCESSOR SIZE Z 7  2715  D 021 P29      255
1634 15 15   CTL3   BCE   CTL2,CKPRO,                  FOR VALID CODE  Z   8  2722  B P37 R13        255
1635 15 16          BCE                                               Z   1  2730  B                255
1636 15 17          BCE                                               Z   1  2731  B                255
1637 15 18          BCE                                               Z   1  2732  B                255
1638 15 19          B     NOCTL                                       Z   4  2733  B Q71             255
1639 15 20   CTL2   MLC   INPUT&21,PROCOR             INITIALIZE AREAS Z   7  2737  M 021 194        255
1640 15 21          ZA    INPUT&21,XL1                                Z   7  2744  ? 021 089        256
1641 15 22          S     &30,XL1&1                   PROCESSOR MACHINE Z  7  2751  S R22 090       256
1642 15 23          A     XL1                         SIZE            Z   4  2758  A 089            256
1643 15 24          A     XL1                                         Z   4  2762  A 089            256
1644 15 25          MLC   FCTBL&X1,FACTOR                            Z   7  2766  M QZ7 H48        256
1645 15 26          MLC   @0@,FACTOR-3                               Z   7  2773  M R23 H45        256
1646 15 27          MLC   FCTBL-3&X1,CKTAP&7                         Z   7  2780  M QZ4 652        257
1647 15 28          BCE   IS16K,INPUT&21,6           Q. 16K PROCESSOR Z   8  2787  B Q52 021 6      257
1648 15 29          BCE   IS16K,INPUT&21,5           Q. 16K PROCESSOR Z   8  2795  B Q52 021 5      257
1649 15 30          BCE   IS8K,INPUT&21,4            Q. 8K  PROCESSOR Z   8  2803  B Q33 021 4      257
1650 15 31          MLC   @3@,PROCOR                                 Z   7  2811  M R24 194        257
1651 15 32   *
1652 15 33   * INITIALIZE OUTPUT AREA AND SET UP BLOCKING SIZE
1653 15 34   *
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1654 15 35   IS4K    LCA   GRPMK8,3998              SET GROUP MARK AT END Z  7  2818  L H99 I98         258
1655 15 36           B     PUT                                        Z  4  2825  B 610              258
1656 15 37           B     LDOPTB                    OF OUTPUT AREA   Z  4  2829  B 489              258
1657 15 38   IS8K    LCA   GRPMK8,4318                                Z  7  2833  L H99 31Y          258
1658 15 39           MCW   @%@                                       Z  4  2840  M R25              258
1659 15 40           MCW   4317                                      Z  4  2844  M 31X              258
1660 15 41           B     CWI98                                      Z  4  2848  B 469              258
1661 15 42   IS16K   LCA   GRPMK8,4718                                Z  7  2852  L H99 71Y          259
1662 15 43           MCW   @%@                                       Z  4  2859  M R25              259
1663 15 44           MCW   4717                                      Z  4  2863  M 71X              259
1664 15 45           B     CWI98                                      Z  4  2867  B 469              259
1665 15 46   NOCTL   MLC   FCTBL,FACTOR              PROCESS WHEN NO  Z  7  2871  M Q97 H48          259
1666 15 47           MLC   @3@,PROCOR                CONTROL CARD     Z  7  2878  M R24 194          259
1667 15 48           BSP   INTAP                                      Z  5  2885  U %U4 B            259
1668 15 49           B     IS4K                                       Z  4  2890  B Q18              260
1669 15 50   FCTBL   DCW   0015                                      Z  4  2897                    260
1670 15 51           DCW   3051                                      Z  4  2901                    260
1671 15 52           DCW   7087                                      Z  4  2905                    260
1672 15 53           DCW   7127                                      Z  4  2909                    260
1673 15 54   CKPRO   DCW   3456                                      Z  4  2913                    260
1674 15 55           LTORG *                                         Z        2914
                     DCW   @000@                                     Z  3  2916            LIT     260
                           @I@                                       Z  1  2917            LIT     261
                           @CTL@                                     Z  3  2920            LIT     261
                           &30                                       Z  2  2922            LIT     261
                           @0@                                       Z  1  2923            LIT     261
                           @3@                                       Z  1  2924            LIT     261
                           @%@                                       Z  1  2925            LIT     261
1675 15 56   *
1676 15 57   *M A I N   L I N E   C O N S T A N T S   A N D   W O R K   A R E A S
1677 15 58   *
1678 15 59   *LITERAL HOLD AREA
1679 15 60   *
1680 15 61           ORG   SAVE                                      Z        3760
1681 15 62   LAREA   EQU   *                                         Z     3759
1682 15 63           DCW   &00000                                    Z  5  3764                    262
1683 15 64           DCW   #10                                       Z 10  3774                    262
1684 15 65           DCW   @DCW  @                                   Z  5  3779                    262
1685 15 66           DCW   #1                                        Z  1  3780                    262
1686 15 67           DS    53                                        Z     3833
1687 15 68           DCW   @/@                                      Z  1  3834                    263
1688 15 69           DS    9                                         Z     3843
1689 15 70   GRPMK3  DC    @}@                                       Z  1  3844                    264
1690 15 71   HLDLIT  EQU   LAREA&1                                   Z     3760
1691 15 72   *
1692 15 73   *CONSTANTS AND WORK AREAS
1693 15 74   *
1694 15 75   FACTOR  DCW   @0000@                 LABEL CONVERSION FACTR Z  4  3848                 264
1695 15 76   BIGCTR  DCW   @00000@                BIG LITERAL LABEL CNTR Z  5  3853                 264
1696 15 77   ORGCTR  DCW   @00332@                ORIGIN COUNTER         Z  5  3858                 264
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SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION TYPE	CARD
1697	15	78	BLANK4	DCW	#4	BLANKS	Z	4	3862		264
1698	15	79	B2CNTR	DCW	#5	WORK AREA	Z	5	3867		265
1699	15	80	HOLD4	DCW	#4	WORK AREA	Z	4	3871		265
1700	15	81	W6AREA	DCW	#6	WORK AREA	Z	6	3877		265
1701	15	82	HOLD7	DCW	#7	USED FOR LABEL	Z	7	3884		265
1702	15	83	HOLD1	DCW	&0	CONVERSION ONLY	Z	1	3885		265
1703	15	84	SFXHLD	DCW	0	SUFFIX CHARACTER	Z	1	3886		265
1704	15	85	INITSW	DCW	0	DA SWITCH	Z	1	3887		265
1705	15	86	MARKSW	DC	0	DA SWITCH	Z	1	3888		266
1706	15	87	DCWSW	DC	0	DCW SWITCH	Z	1	3889		266
1707	15	88	LITSW2	DC	0	LITERAL SWITCH	Z	1	3890		266
1708	15	89	DSASW2	DC	0	DSA SWITCH	Z	1	3891		266
1709	15	90	DCWSW2	DC	0	DCW SWITCH	Z	1	3892		266
1710	15	91	GRPMK8	EQU	3899		Z		3899		
1711	15	92	3899	DCW	@}@	SYSTEM GROUP MARK	Z	1	3899		267
1712	15	93		EX	DOZERO		Z			B 000	268

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 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

1713 15 94          JOB   1401 AUTOCODER-PASS 4 MAIN LINE OVERLAY  -VERSION 3
1714 15 95   *
1715 15 96   *PROCESS INSTRUCTION STATEMENTS
1716 15 97   *
1717 15 98          ORG   DOPROG                                      Z            2575
1718 15 99   INSTR  MCW   EQUADD,IMAGE&67              GET ACTUAL OP   Z   7  2575  M N11 167          271
1719 16 00          CW    LENSW#1                     RESET SWITCH    Z   4  2582  ) G34              271
1720 16 01          MLC   @01@,IMAGE&7                SET COUNT TO ONE Z  7  2586  M G36 107         271
1721 16 02          BW    *&5,EQUADD                  Q. REGULAR OP CODE Z 8  2593  V O05 N11 1       271
1722 16 03          B     AUGMNT                                        Z   4  2601  B R06              271
1723 16 04   DOCNT  BCE   DONE,INPUT&21&X2,           Q. IS THERE OPERAND Z 8  2605  B P31 0K1          271
1724 16 05          BCE   XISALF,INPUT&21&X2,@       Q. ALPHAMERIC LITERAL Z 8  2613  B ?77 0K1 @      272
1725 16 06          LCA   BLANK2&1,INPUT&20&X2       WIPE OUT PREV OPERAND Z 7  2621  L H61 0K0        272
1726 16 07          B     COMSCN                      SCAN FOR COMMA, BLANK Z 4  2628  B 860            272
1727 16 08          MLC   XL3,W3AREA                                   Z   7  2632  M 099 H74          272
1728 16 09          MLC   FREEA,XL3                                    Z   7  2639  M M98 099          272
1729 16 10          BCE   XISLIT,INPUT&21&X3,&       Q. NUMERIC LITERAL OR Z 8  2646  B B51 0B1 &      273
1730 16 11          BCE   XISLIT,INPUT&21&X3,-        ADDRESS CONSTANT Z 8  2654  B B51 0B1 -      273
1731 16 12          B     FR2FIX                      CONVERT FREE TO FIXED Z 4  2662  B 952            273
1732 16 13          BCE   SMLTYP,IMAGE&23&X1,#       Q. AREA DEF LITERAL Z 8  2666  B ?40 1S3 #      273
1733 16 14   CKDONE A     &3,IMAGE&7                  ADD THREE TO COUNT Z 7  2674  A G37 107          273
1734 16 15          BW    FREMOD,LENSW                Q. FIVE CHAR INST Z 8  2681  V P39 G34 1       274
1735 16 16          C     XL1,@010@                   Q. B OPERAND JUST Z 7  2689  C 089 G40          274
1736 16 17          BL    DONE                         PROCESSED        Z 5  2696  B P31 T            274
1737 16 18          MLC   @011@,XL1                                    Z   7  2701  M G43 089          274
1738 16 19          BW    *&5,SCANSW                  Q. TWO BLABKS AFTER OP Z 8  2708  V P20 N15 1     274
1739 16 20          B     ELMBLK                      ELIMINATE BLANKS Z 4  2716  B Q83              274
1740 16 21   INTXL1 MCW   XL2,FREEA                                    Z   7  2720  M 094 M98          275
1741 16 22          B     DOCNT                                         Z   4  2727  B O05              275
1742 16 23   DONE   BW    CKMOD1,SCANSW               Q. D MODIFIER IN Z 8  2731  V Q03 N15 1       275
1743 16 24   FREMOD MLC   INPUT&21&X2,IMAGE&39         OPERAND FIELD   Z   7  2739  M 0K1 139          275
1744 16 25          BCE   *&5,IMAGE&39,               Q. D MODIFIER OFFSET Z 8  2746  B P58 139       275
1745 16 26          B     C1                           ONE POSITION    Z   4  2754  B P80              275
1746 16 27          BCE   C1,INPUT&22&X2,             IF BOTH POSITIONS Z 8  2758  B P80 0K2         276
1747 16 28          MCW   INPUT&22&X2,IMAGE&39         BLANK ASSUME FIRST Z 7  2766  M 0K2 139         276
1748 16 29          A     &1,XL2                       BLANK SIGNIFICANT Z 7  2773  A G44 094          276
1749 16 30   C1     C     INPUT&23&X2,BLANK2          Q. D MODIFIER    Z   7  2780  C 0K3 H60          276
1750 16 31          BE    ISMOD                        FOLLOWED BY TWO Z 5  2787  B Q11 S             276
1751 16 32          MZ    ABIT,IMAGE&5                 BLANKS          Z   7  2792  Y 187 105          277
1752 16 33          B     ISMOD                                         Z   4  2799  B Q11              277
1753 16 34   CKMOD1 BCE   DOIADD,IMAGE&39,            Q. D CHARACTER   Z   8  2803  B Q32 139          277
1754 16 35   ISMOD  A     &1,IMAGE&7                  PROCESS D CHARACTER Z 7  2811  A G44 107          277
1755 16 36          MLC   IMAGE&7,XL2                                   Z   7  2818  M 107 094          277
1756 16 37          MLC   IMAGE&39,IMAGE&66&X2                         Z   7  2825  M 139 1O6          278
1757 16 38   DOIADD MLC   ORGCTR,IMAGE&61             ASSIGN ADDRESS AND Z 7  2832  M H58 161          278
1758 16 39          A     &1,IMAGE&61                  BUMP UP COUNTER  Z   7  2839  A G44 161          278
1759 16 40          A     IMAGE&7,ORGCTR                                Z   7  2846  A 107 H58          278
1760 16 41          MLC   BLANK,IMAGE&75              CODE RECORD      Z   7  2853  M H59 175          278
1761 16 42          B     NUREC                                         Z   4  2860  B 534              278
1762 16 43   LOOPBL A     &1,XL2                      WEED OUT BLANKS  Z   7  2864  A G44 094          279
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1763 16 44          C     XL2,@51@                 BETWEEN OPERANDS Z  7  2871  C 094 G46        279
1764 16 45          BL    ERRBLK                                   Z  5  2878  B Q95 T           279
1765 16 46   ELMBLK BCE   LOOPBL,INPUT&21&X2,                      Z  8  2883  B Q64 0K1         279
1766 16 47          B     INTXL1                                   Z  4  2891  B P20             279
1767 16 48   ERRBLK MZ    ABIT,IMAGE&5                             Z  7  2895  Y 187 105         279
1768 16 49          B     CKDONE                                   Z  4  2902  B O74             280
1769 16 50   *
1770 16 51   *PROCESS UNIQUE MNEMONICS
1771 16 52   *
1772 16 53   AUGMNT MCW   EQUADD-1,IMAGE&39        D MOD TO IMAGE AREA Z  7  2906  M N10 139        280
1773 16 54          BCE   ISFIVE,EQUADD-1,         Q. BIN TYPE         Z  8  2913  B ?32 N10         280
1774 16 55   CKREG  BW    DOCNT,EQUADD-1           Q. TYPICAL UNIQUE MNEM Z 8  2921  V O05 N10 1      280
1775 16 56          BW    TAPAUG,EQUADD-2          Q. TAPE TYPE        Z  8  2929  V R52 N09 1      280
1776 16 57          MCW   EQUADD-2,IMAGE&70        ERGO RAMAC TYPE     Z  7  2937  M N09 170        281
1777 16 58          MLC   @%@                                      Z  4  2944  M G47             281
1778 16 59          B     OPDONE                                   Z  4  2948  B ?21             281
1779 16 60   TAPAUG C     INPUT&21,@0@             PROCESS TAPE TYPE OF Z 7  2952  C 021 G48        281
1780 16 61          BH    DOCNT                     UNIQUE MNEMONICS   Z  5  2959  B O05 U          281
1781 16 62          BCE   MSCSW,INPUT&22,,         CHECK FOR PROPERLY  Z  8  2964  B R95 022 ,      281
1782 16 63          C     INPUT&23,BLANK2          CODED A OPERAND     Z  7  2972  C 023 H60        282
1783 16 64          BE    GETPOP                                   Z  5  2979  B R99 S           282
1784 16 65          MCW   @###@,IMAGE&70                          Z  7  2984  M G51 170         282
1785 16 66          B     OPDONE                                   Z  4  2991  B ?21             282
1786 16 665  MSCSW  CW    SCANSW                                   Z  4  2995  ) N15             282
1787 16 67   GETPOP MN    INPUT&21,IMAGE&70                        Z  7  2999  D 021 170         282
1788 16 68          MCW   EQUADD-2                                 Z  4  3006  M N09             282
1789 16 69          MLC   @%@                                      Z  4  3010  M G47             283
1790 16 70          MLC   @002@,XL2                               Z  7  3014  M G54 094         283
1791 16 72   OPDONE MLZS  ABBIT,IMAGE&1            MARK A OPERAND DONE Z 7  3021  Y 189 101        283
1792 16 73          B     CKDONE                                   Z  4  3028  B O74             283
1793 16 74   ISFIVE SW    LENSW                    SET SWITCH FOR FIVE Z  4  3032  , G34            283
1794 16 75          B     CKREG                     CHAR INSTRUCTION   Z  4  3036  B R21             283
1795 16 76   *
1796 16 77   *PROCESS AREA DEFINITION LITERAL
1797 16 78   *
1798 16 79   SMLTYP SW    IMAGE&24&X1              MOVE LENGTH TO      Z  4  3040  , 1S4             283
1799 16 80          MLC   IMAGE&26&X1,LAREA&24      LITERAL HOLD AREA  Z  7  3044  M 1S6 G83        284
1800 16 81          MLC   @#@                                      Z  4  3051  M G55             284
1801 16 82          CW    IMAGE&24&X1              REMOVE LENGTH FROM  Z  4  3055  ) 1S4             284
1802 16 83          MCW   BLANK4,IMAGE&26&X1       CHAR ADJ PORTION   Z  7  3059  M H62 1S6        284
1803 16 84          MCW   INPUT&84,LAREA&4         OF OPERAND AND SAVE Z  7  3066  M 084 G63        284
1804 16 85          B     WRTLIT                    ALTER NUMBER       Z  4  3073  B A89             284
1805 16 86   *
1806 16 87   *PROCESS ALPHAMERIC LITERALS
1807 16 88   *
1808 16 89   XISALF B     SCANAT                   SCAN FOR @ SIGN     Z  4  3077  B S92             284
1809 16 90          C     XL3,@07@                 Q. BIG LITERAL      Z  7  3081  C 099 G57         285
1810 16 91          BL    DOBIG                                    Z  5  3088  B A57 T           285
1811 16 92   XALF1  A     XL3,XL1                                  Z  7  3093  A 099 089         285
1812 16 93          MCW   INPUT&19&X2,IMAGE&15&X1  GENERATE UNIQUE LABEL Z 7  3100  M 0J9 1/5        285
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1813 16 94          BCE   GM1,FREE&18&X2,}            AND STRIP ZONING      Z   8  3107  B A43 0J8 }        285
1814 16 95          BCE                               OFF GROUP MARKS IN    Z   1  3115  B                 285
1815 16 96          BCE                               LITERAL TO ELIMINATE  Z   1  3116  B                 285
1816 16 97          BCE                               CONFLICT              Z   1  3117  B                 286
1817 16 98   ADD    S     XL3&1,XL1&1                 WITH NOISE RECORD     Z   7  3118  S 100 090         286
1818 16 99          MZ    EXOVFL-1,IMAGE&17&X1        ROUTINE               Z   7  3125  Y 190 1/7         286
1819 17 00   SETEX  MCW   EXNUMB-1,IMAGE&22&X1       GIVE LITERAL SECTION  Z   7  3132  M 192 1S2         286
1820 17 01          B     PROLIT                      CODE                  Z   4  3139  B A82             286
1821 17 02   GM1    MZ    BLANK4,IMAGE&14&X1                                Z   7  3143  Y H62 1/4         286
1822 17 03          MZ                                                      Z   1  3150  Y                 286
1823 17 04          MZ                                                      Z   1  3151  Y                 287
1824 17 05          MZ                                                      Z   1  3152  Y                 287
1825 17 06          B     ADD                                               Z   4  3153  B A18             287
1826 17 07   *
1827 17 08   *PROCESS BIG LITERALS
1828 17 09   *
1829 17 10   DOBIG  MLC   BIGCTR,IMAGE&22&X1          GENERATE BIG LITERAL  Z   7  3157  M H53 1S2         287
1830 17 11          MLC   @$@                         LABEL                 Z   4  3164  M G58             287
1831 17 12          A     &1,BIGCTR                                         Z   7  3168  A G44 H53         287
1832 17 13          MCW   INPUT&84,LAREA&4           SAVE ALTER NUMBER     Z   7  3175  M 084 G63         287
1833 17 14   *
1834 17 15   *PLACE LITERALS IN HOLD AREA AND WRITE OUT ON LITERAL TAPE
1835 17 16   *
1836 17 17   PROLIT MLC   INPUT&19&X2,LAREA&19&X3     LITERAL TO HOLD AREA  Z   7  3182  M 0J9 GG8         288
1837 17 18   WRTLIT MLC   IMAGE&22&X1,LAREA&11       LITERAL LABEL TO AREA Z   7  3189  M 1S2 G70         288
1838 17 19          BW    DSAX1,LITSW2                                      Z   8  3196  V Z90 H90 1       288
1839 17 20          WT    LITAPE,HLDLIT               WRITE OUT LITERAL     Z   8  3204  M %U6 G60 W       288
1840 17 21          NOP   0                                                 Z   4  3212  N 000            288
1841 17 22          BER   TPERR                                            Z   5  3216  B 221 L          288
1842 17 23          MCW   BLANK4,LAREA&4              CLEAR HOLD AREA       Z   7  3221  M H62 G63         289
1843 17 24          MLC   LAREA&74,LAREA&73                                 Z   7  3228  M H33 H32         289
1844 17 25          CW    LITSW                       SET SW TO INDICATE AT Z   4  3235  ) N46            289
1845 17 26          BW    DSAX1,DSASW2                Q. RECURSIVE DCW      Z   8  3239  V Z90 H91 1       289
1846 17 27          B     CKDONE                      LEAST ONE LIT EXISTS  Z   4  3247  B O74            289
1847 17 28   *
1848 17 29   *PROCESS NUMERIC LITERALS
1849 17 30   *
1850 17 31   XISLIT C     INPUT&22&X3,@0@             Q. ADDRESS CONSTANT   Z   7  3251  C 0B2 G48         289
1851 17 32          MLC   W3AREA,XL3                                        Z   7  3258  M H74 099         290
1852 17 33          BH    DOBIG                                             Z   5  3265  B A57 U           290
1853 17 34          C     XL3,@07@                    Q. BIG LITERAL        Z   7  3270  C 099 G57         290
1854 17 35          BL    DOBIG                                             Z   5  3277  B A57 T           290
1855 17 36   XLIT1  A     XL1,XL3                     PROCESS SMALL NUMERIC Z   7  3282  A 089 099         290
1856 17 37          MLC   INPUT&19&X2,IMAGE&14&X3     LITERALS              Z   7  3289  M 0J9 1A4         290
1857 17 38          MZ    EXOVFL-1,IMAGE&21&X1        GENERATE UNIQUE LABEL Z   7  3296  Y 190 1S1         291
1858 17 39          MLC   FREEA,XL3                    FOR LITERAL          Z   7  3303  M M98 099         291
1859 17 40          MLZS  INPUT&21&X3,IMAGE&18&X1                           Z   7  3310  Y 0B1 1/8         291
1860 17 41          MLC   W3AREA,XL3                                        Z   7  3317  M H74 099         291
1861 17 42          B     SETEX                                             Z   4  3324  B A32            291
1862 17 43   *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1863 17 44   *GENERATE LABEL ENTRY ADDRESS FOR SYMBOLIC OPERANDS
1864 17 45   *
1865 17 46   PROPND SBR   BOPXT&3                                   Z   4  3328  H C60             291
1866 17 47          BCE   BOPXT,IMAGE&17                           Z   7  3332  B C57 117         292
1867 17 48          MCW   IMAGE&22,W6AREA                          Z   7  3339  M 122 H77         292
1868 17 49          B     PROLAB                  LINK TO SUBROUTINE Z   4  3346  B W47            292
1869 17 50          MLC   W3AREA,IMAGE&70                         Z   7  3350  M H74 170         292
1870 17 51   BOPXT  B     XXXX                                      Z   4  3357  B 000            292
1871 17 52   *
1872 17 53   *DETERMINE TYPE OF CONTROL OP
1873 17 54   *
1874 17 55   CTRLOP MCW   EQUADD-1,IMAGE&75         CODE RECORD      Z   7  3361  M N10 175         292
1875 17 56          S     XL3&1                                     Z   4  3368  S 100            293
1876 17 57          MN    EQUADD-1,XL3              BRANCH TO APPROPRIATE Z 7  3372  D N10 099    293
1877 17 58          A     XL3                        ROUTINE        Z   4  3379  A 099            293
1878 17 59          A     XL3                                       Z   4  3383  A 099            293
1879 17 60          B     *&1&X3                                    Z   4  3387  B CI1            293
1880 17 61          B     DARTN                                     Z   4  3391  B M41            293
1881 17 62          B     DCWCD                                     Z   4  3395  B Y11            293
1882 17 63          B     ERRHLT                                    Z   4  3399  B D63            294
1883 17 64          B     EXEND                                     Z   4  3403  B G10            294
1884 17 65          B     DOSFX                                     Z   4  3407  B F92            294
1885 17 66          B     ERRHLT                                    Z   4  3411  B D63            294
1886 17 67          B     ORGSTM                                    Z   4  3415  B D74            294
1887 17 68          B     DSSTMT                                    Z   4  3419  B F00            294
1888 17 69          B     INSPC                                     Z   4  3423  B D38            294
1889 17 70          MCW   INPUT&80,IMAGE&21                         Z   7  3427  M 080 121         295
1890 17 71          B     NUREC                                     Z   4  3434  B 534            295
1891 17 72   INSPC  MCW   EQUADD-2,IMAGE&67         PROCESS CC, SS   Z   7  3438  M N09 167         295
1892 17 73          MCW   BLANK2,IMAGE&75            TYPE OF        Z   7  3445  M H60 175         295
1893 17 74          MLC   @01@,IMAGE&7               INSTRUCTIONS   Z   7  3452  M G36 107         295
1894 17 75          B     FREMOD                                    Z   4  3459  B P39            295
1895 17 76   ERRHLT H     0,0402                    SYSTEM ERROR HALT Z   7  3463  . 000 402        296
1896 17 77          B     ERRHLT                     SHOULD NEVER OCCUR Z  4  3470  B D63            296
1897 17 78   *
1898 17 79   *PROCESS LITERAL ORIGIN AND ORIGIN CARDS
1899 17 80   *
1900 17 81   ORGSTM B     COMSCN                    SCAN FOR BLANK   Z   4  3474  B 860            296
1901 17 82          B     FNLOP                     CHECK LAST OPERAND Z  4  3478  B W05            296
1902 17 83          B     FR2FIX                    FREE TO FIXED FORM Z  4  3482  B 952            296
1903 17 84          BCE   SUBORG,IMAGE&24,X         Q. ADJUSTMENT &XOD Z  8  3486  B E63 124 X      296
1904 17 85          BCE   ORGPRO,IMAGE&17,*         Q. ASTERISK OPERAND Z 8  3494  B E89 117 *      296
1905 17 86          ZS    &1,ORGCTR                 SET COUNTER TO -1 Z   7  3502  ! G44 H58        297
1906 17 87          BCE   ORGADJ,IMAGE&17,          Q. BLANK OPERAND Z    8  3509  B E33 117        297
1907 17 88          BWZ   ORGCVT,IMAGE&17,2         Q. ACTUAL ORIGIN Z    8  3517  V E78 117 2      297
1908 17 89          S     XL2&1                     PROCESS A OPERAND OF Z  4  3525  S 095            297
1909 17 90          B     PROPND                     SYMBOLIC ORIGIN Z    4  3529  B C28            297
1910 17 91   ORGADJ A     IMAGE&26,ORGCTR           ADD CHAR ADJUSTMENT Z  7  3533  A 126 H58        297
1911 17 92   TYPORG MLC   ORGCTR,IMAGE&61           SAVE ORIGIN VALUE Z   7  3540  M H58 161        298
1912 17 93          BCE   NUREC,INPUT&16,O          Q. ORIGIN CARD   Z   8  3547  B 534 016 O      298
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1913 17 94           B     PUT                  PUT LTORG RECORD   Z  4  3555  B 610             298
1914 17 95           B     CALL                 GO TO LITERAL ROUTINE Z 4  3559  B U31             298
1915 17 96   SUBORG  ZS    &1,ORGCTR            SET COUNTER TO -1  Z  7  3563  ! G44 H58          298
1916 17 97           B     PROPND               PROCESS A OPERAND  Z  4  3570  B C28             298
1917 17 98           B     TYPORG                                  Z  4  3574  B E40             298
1918 17 99   ORGCVT  B     CVTFLA               RESET COUNTER TO ACTL Z 4  3578  B W28             299
1919 18 00           A     W5AREA,ORGCTR         ADDRESS LESS ONE  Z  7  3582  A H76 H58          299
1920 18 01   ORGPRO  MZ    ABBIT,IMAGE&1        MARK A OPERAND     Z  7  3589  Y 189 101           299
1921 18 02           B     ORGADJ                PROCESSED         Z  4  3596  B E33             299
1922 18 03   *
1923 18 04   *PROCESS DS STATEMENTS
1924 18 05   *
1925 18 06   DSSTMT  B     COMSCN               SCAN FOR COMMA/BLANK Z 4  3600  B 860             299
1926 18 07           B     FNLOP                CHECK LAST OPERAND Z  4  3604  B W05             299
1927 18 08           B     FR2FIX               CONVERT TO FIXED FORM Z 4  3608  B 952             299
1928 18 09           BWZ   CKEQU,INPUT&21,2     Q. ACTUAL OPERAND  Z  8  3612  V F55 021 2        300
1929 18 10           BCE   CK4ADJ,IMAGE&17,*    Q. ASTERISK OPERAND Z 8  3620  B F44 117 *        300
1930 18 11           BCE   NUREC,IMAGE&17,%     Q. I/O OPERAND     Z  8  3628  B 534 117 %        300
1931 18 12           B     PROPND               GENERATE LABEL ADDRESS Z 4  3636  B C28             300
1932 18 13           B     NUREC                                   Z  4  3640  B 534             300
1933 18 14   CK4ADJ  ZA    IMAGE&26,IMAGE&61    PICKUP CHARACTER   Z  7  3644  ? 126 161          300
1934 18 15           B     DSETAD                ADJUSTMENT        Z  4  3651  B !82             301
1935 18 16   CKEQU   ZA    IMAGE&21,W5AREA      CONVERT ACTUAL OPND OF Z 7  3655  ? 121 H76          301
1936 18 17           B     CVRT5                 EQU AND DS        Z  4  3662  B V78             301
1937 18 18           A     IMAGE&26,W5AREA      ADD CHARACTER ADJ  Z  7  3666  A 126 H76          301
1938 18 19           BCE   DCWACT,IMAGE&75,P    Q. EQU CODE        Z  8  3673  B !50 175 P        301
1939 18 20           A     W5AREA,ORGCTR        PROCESS DS         Z  7  3681  A H76 H58          301
1940 18 21           B     BMPCTR                                  Z  4  3688  B !75             302
1941 18 22   *
1942 18 23   *PROCESS SUFFIX STATEMENTS
1943 18 24   *
1944 18 25   DOSFX   MLC   INPUT&21,IMAGE&17    SABE SUFFIX        Z  7  3692  M 021 117          302
1945 18 26           MCW   INPUT&21,SFXHLD       CHARACTER        Z  7  3699  M 021 H86          302
1946 18 27           B     NUREC                                   Z  4  3706  B 534             302
1947 18 28   *
1948 18 29   *PROCESS EXECUTE, END STATEMENTS
1949 18 30   *
1950 18 31   EXEND   B     COMSCN               SCAN FOR COMMA/BLANK Z 4  3710  B 860             302
1951 18 32           B     FNLOP                CHECK LAST OPERAND Z  4  3714  B W05             302
1952 18 33           B     FR2FIX               CONVERT TO FIXED FORM Z 4  3718  B 952             302
1953 18 34           BCE   NUREC,INPUT&16,X                        Z  8  3722  B 534 016 X        303
1954 18 35           B     CALL                 MERGE LITERALS     Z  4  3730  B U31             303
1955 18 36           LTORG *                                       Z        3734
       1719  LENSW   DCW   #01                                     Z  1  3734            AREA    303
                            @01@                                   Z  2  3736            LIT     303
                            &3                                     Z  1  3737            LIT     303
                            @010@                                  Z  3  3740            LIT     303
                            @011@                                  Z  3  3743            LIT     303
                            &1                                     Z  1  3744            LIT     304
                            @51@                                   Z  2  3746            LIT     304
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SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					@%@		Z	1	3747		LIT	304
					@0@		Z	1	3748		LIT	304
					@###@		Z	3	3751		LIT	304
					@002@		Z	3	3754		LIT	304
					@#@		Z	1	3755		LIT	304
					@07@		Z	2	3757		LIT	305
					@$@		Z	1	3758		LIT	305
1956	18	37	GRPMK2	DCW	@}@	SYSTEM GROUP MARK	Z	1	3759			305
1957	18	38	SAVE	EQU	*&1		Z		3760			
1958	18	39		EX	DOZERO		Z			B 000		306

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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1959 18 40          JOB   1401 AUTOCODER-PASS 4 PROCESS DA -VERSION 3
1960 18 41   *
1961 18 42   *PROCESS DA STATEMENTS
1962 18 43   *
1963 18 44          ORG   DOPROG                                    Z          2575
1964 18 45   DASTMT BSP   SYSTAP                 RE-POSITION SYSTEM  Z   5  2575  U %U1 B           309
1965 18 46          BSP   SYSTAP                  TAPE               Z   5  2580  U %U1 B           309
1966 18 47          SW    NUMSW,DACSW           Q. FIRST CHAR -X-    Z   7  2585  , F31 F55         309
1967 18 48          SW    FRMKSW,DGMKSW         SET SWITICHES        Z   7  2592  , F58 F57         309
1968 18 49          BCE   DAERR,INPUT&21,X                           Z   8  2599  B C14 021 X       309
1969 18 50   EXSCAN BCE   NDXSCN,INPUT&22&X2,X  SCAN FOR -X- IN -BXL- Z   8  2607  B O34 0K2 X       310
1970 18 51          BCE   DAERR,XL2,4                                Z   8  2615  B C14 094 4       310
1971 18 52          A     &1,XL2                                      Z   7  2623  A F18 094         310
1972 18 53          B     EXSCAN                                      Z   4  2630  B O07             310
1973 18 54   NDXSCN A     INPUT&21&X2,BLKCTR    GET BLOCKING FACTOR   Z   7  2634  A 0K1 F17        310
1974 18 55          A     &2,XL2                                      Z   7  2641  A F19 094         311
1975 18 56          B     COMSCN                                      Z   4  2648  B 860            311
1976 18 57          ZA    INPUT&19&X2,RECNTR#5  GET RECORD LENGTH     Z   7  2652  ? 0J9 F24        311
1977 18 58   FINHED BCE   DAINDX,INPUT&21&X2,X  Q. INDEXING           Z   8  2659  B C73 0K1 X       311
1978 18 59          BCE   DAGMRK,INPUT&21&X2,G  Q. GROUP MARK         Z   8  2667  B C91 0K1 G       311
1979 18 60          BCE   DAFMRK,INPUT&21&X2,|  Q. RECORD MARK        Z   8  2675  B D06 0K1 |       312
1980 18 61          BCE   DACLR,INPUT&21&X2,C   Q. CLEAR OPTION       Z   8  2683  B C65 0K1 C       312
1981 18 62          BCE   CMPSZ,INPUT&20&X2,    Q. NO OTHER OPTIONS   Z   8  2691  B P06 0K0        312
1982 18 63          MZ    ABIT,IMAGE&5          MARK BAD STATEMENT    Z   7  2699  Y 187 105        312
1983 18 64   CMPSZ  S     W5AREA                                      Z   4  2706  S H76            312
1984 18 65          MCW   BLKCTR,B2CNTR         COMPUTE SIZE OF AREA  Z   7  2710  M F17 H67        313
1985 18 66   DAREP  S     &1,B2CNTR             AND STORE IN B2CNTR   Z   7  2717  S F18 H67        313
1986 18 67          BM    SFANS, B2CNTR                               Z   8  2724  V P43 H67 K      313
1987 18 68          A     RECNTR,W5AREA                               Z   7  2732  A F24 H76        313
1988 18 69          B     DAREP                                       Z   4  2739  B P17            313
1989 18 70   SFANS  MCW   W5AREA,B2CNTR                              Z   7  2743  M H76 H67        314
1990 18 71          MLC   @*@,IMAGE&17                               Z   7  2750  M F25 117        314
1991 18 72          BCE   DASTR,INPUT&6,         DETERMINE WHETHER    Z   8  2757  B P73 006        314
1992 18 73          BWZ   DANUM,INPUT&6,2         LOCATION OF DA IS   Z   8  2765  V P98 006 2      314
1993 18 74   DASTR  MLC   ORGCTR,DALOC#5          ACTUAL OR ASTERISK  Z   7  2773  M H58 F30        314
1994 18 75          A     &1,DALOC              PROCESS DA*           Z   7  2780  A F18 F30        315
1995 18 76          A     W5AREA,ORGCTR         BUMP ORIGIN COUNTER   Z   7  2787  A H76 H58        315
1996 18 77          B     ENDDA                                       Z   4  2794  B Q20            315
1997 18 78   DANUM  MLC   INPUT&10,IMAGE&21      PROCESS ACTUAL DA     Z   7  2798  M 010 121        315
1998 18 79          CW    NUMSW#1               SET ACTUAL DA SWITCH  Z   4  2805  ) F31            315
1999 18 80          B     CVTFLA                                      Z   4  2809  B W28            315
2000 18 81          MLC   W5AREA,DALOC                                Z   7  2813  M H76 F30        316
2001 18 82   ENDDA  MLC   DALOC,IMAGE&66         GENERATE HIGH ORDER   Z   7  2820  M F30 166        316
2002 18 83          MLC   DALOC                  LOCATION OF DA       Z   4  2827  M F30            316
2003 18 84          A     RECNTR,IMAGE&66                             Z   7  2831  A F24 166        316
2004 18 85          S     &1,IMAGE&66                                 Z   7  2838  S F18 166        316
2005 18 86          S     &1,DALOC                                    Z   7  2845  S F18 F30        316
2006 18 87          CW    HEDSW#1                                     Z   4  2852  ) F32            317
2007 18 88          BW    DALOOP,DACSW          Q. CLEAR OPTION       Z   8  2856  V ?37 F55 1      317
2008 18 89          MCW   IMAGE&80,DAHLD        SAVE IMAGE            Z   7  2864  M 180 G54        317
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

2009 18 90           CHAIN 10                                                                MACRO
2010                 MCW                                           Z  1  2871  M           GEN    317
2011                 MCW                                           Z  1  2872  M           GEN    317
2012                 MCW                                           Z  1  2873  M           GEN    317
2013                 MCW                                           Z  1  2874  M           GEN    317
2014                 MCW                                           Z  1  2875  M           GEN    318
2015                 MCW                                           Z  1  2876  M           GEN    318
2016                 MCW                                           Z  1  2877  M           GEN    318
2017                 MCW                                           Z  1  2878  M           GEN    318
2018                 MCW                                           Z  1  2879  M           GEN    318
2019                 MCW                                           Z  1  2880  M           GEN    318
2020 18 91           MCW   @A@,IMAGE&75          CODE DC STATEMENT AND  Z  7  2881  M F33 175         318
2021 18 92           MCW   BLANK4,IMAGE&80        TO CLEAR ENTIRE DA    Z  7  2888  M H62 180         319
2022 18 93           MCW   BLANK4,IMAGE&55        AREA                  Z  7  2895  M H62 155         319
2023 18 94           MCW   BLANK4,IMAGE&27       NOTE - EACH DC IS 19   Z  7  2902  M H62 127         319
2024 18 95           SW    INITSW                  CHARACTERS           Z  4  2909  , H87             319
2025 18 96           MCW   BLANK4,IMAGE&11        OPTIMIZING THE        Z  7  2913  M H62 111         319
2026 18 97           MCW   @DC @,IMAGE&16         CONDENSED CARD        Z  7  2920  M F36 116         319
2027 18 98           MCW   @19@,IMAGE&7                                 Z  7  2927  M F38 107         320
2028 18 99           MCW   DALOC,IMAGE&61                               Z  7  2934  M F30 161         320
2029 19 00  CKNDQ    C     B2CNTR,&0020                                 Z  7  2941  C H67 F42         320
2030 19 01           BH    DOLST                                        Z  5  2948  B R82 U           320
2031 19 02           A     &19,IMAGE&61                                 Z  7  2953  A F44 161         320
2032 19 03           MZ    ABBIT,IMAGE&1                                Z  7  2960  Y 189 101         321
2033 19 04           B     PUT                                          Z  4  2967  B 610             321
2034 19 05           S     &19,B2CNTR                                   Z  7  2971  S F44 H67         321
2035 19 06           B     CKNDQ                                        Z  4  2978  B R41             321
2036 19 07  DOLST    C     B2CNTR,&0000                                 Z  7  2982  C H67 F48         321
2037 19 08           BE    RTMGE                                        Z  5  2989  B ?20 S           321
2038 19 09           MN    B2CNTR,IMAGE&7                               Z  7  2994  D H67 107         322
2039 19 10           MN                                                 Z  1  3001  D               322
2040 19 11           A     B2CNTR,IMAGE&61                              Z  7  3002  A H67 161         322
2041 19 12           MZ    ABBIT,IMAGE&1                                Z  7  3009  Y 189 101         322
2042 19 13           B     PUT                                          Z  4  3016  B 610             322
2043 19 14  RTMGE    MCW   DAHLD,IMAGE&80       RESTORE IMAGE AREA     Z  7  3020  M G54 180         322
2044 19 15           CHAIN 10                                                                MACRO
2045                 MCW                                           Z  1  3027  M           GEN    322
2046                 MCW                                           Z  1  3028  M           GEN    323
2047                 MCW                                           Z  1  3029  M           GEN    323
2048                 MCW                                           Z  1  3030  M           GEN    323
2049                 MCW                                           Z  1  3031  M           GEN    323
2050                 MCW                                           Z  1  3032  M           GEN    323
2051                 MCW                                           Z  1  3033  M           GEN    323
2052                 MCW                                           Z  1  3034  M           GEN    323
2053                 MCW                                           Z  1  3035  M           GEN    324
2054                 MCW                                           Z  1  3036  M           GEN    324
2055 19 16  DALOOP   SW    INITSW                                       Z  4  3037  , H87             324
2056 19 17           ZA    &1,B2CNTR                                    Z  7  3041  ? F18 H67         324
2057 19 18  DAPUT    C     B2CNTR,BLKCTR         GENERATE -B- NUMBER    Z  7  3048  C H67 F17         324
2058 19 19           BH    PUTIT                                        Z  5  3055  B B70 U           324
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2059 19 20   DAGET   CW    INITSW                                  Z   4   3060  ) H87             324
2060 19 21           BW    DAPUT2,HEDSW            Q. DA HEADER    Z   8   3064  V ?90 F32 1       325
2061 19 22           MCW   IMAGE&66,GMKADD#5       SAVE LAST ADDRESS Z 7   3072  M 166 F53         325
2062 19 23           A     &1,GMKADD                AS POTENTIAL GROUP Z 7 3079  A F18 F53        325
2063 19 24           SW    HEDSW                    MARK ADDRESS    Z   4   3086  , F32             325
2064 19 25   DAPUT2  B     PUT                                     Z   4   3090  B 610             325
2065 19 26           BW    CKFNLG,MARKSW           Q. REC MARK LOOP Z  8   3094  V E02 H88 1       325
2066 19 27   GET1    B     GET                                     Z   4   3102  B 538             326
2067 19 28           BCE   GET1,INPUT&6,*                         Z   8   3106  B A02 006 *       326
2068 19 29           C     INPUT&19,BLANK4         Q. FIELD CARD   Z   7   3114  C 019 H62         326
2069 19 30           BU    CKFMRK                                  Z   5   3121  B D21 /           326
2070 19 31           MCW   INPUT&84,IMAGE&80       PICKUP ALTER NUMBER Z 7 3126  M 084 180        326
2071 19 32           BCE   *&5,INPUT&6,            Q. LABEL        Z   8   3133  B A45 006         326
2072 19 33           B     PROLBL                  PROCESS LABEL   Z   4   3141  B V38             327
2073 19 34           MLC   &0,IMAGE&75             CODE RECORD     Z   7   3145  M F54 175         327
2074 19 35           S     XL2&1                   FIND LIMITS OF FIELD Z 4 3152  S 095             327
2075 19 36           B     COMSCN                                  Z   4   3156  B 860             327
2076 19 37           ZA    INPUT&19&X2,IMAGE&66                    Z   7   3160  ? 0J9 166         327
2077 19 38           C     RECNTR,IMAGE&66         Q. DOES FIELD EXCEED Z 7 3167  C F24 166        327
2078 19 39           BH    TFERR                    LIMIT OF DA    Z   5   3174  B C39 U           327
2079 19 40           BCE   SUBFLD,INPUT&20&X2,     Q. SUBFIELD     Z   8   3179  B B52 0K0         328
2080 19 41           B     COMSCN                                  Z   4   3187  B 860             328
2081 19 42           B     FNLOP                                   Z   4   3191  B W05             328
2082 19 43           ZA    INPUT&19&X2,IMAGE&61                    Z   7   3195  ? 0J9 161         328
2083 19 44           C     RECNTR,IMAGE&61         Q. DOES FIELD EXCEED Z 7 3202  C F24 161        328
2084 19 45           BH    TFERR                    LIMIT OF DA    Z   5   3209  B C39 U           328
2085 19 46           C     IMAGE&61,IMAGE&66       Q. FIELDS SPECIFIED IN Z 7 3214  C 161 166      329
2086 19 47           BH    FLDERR                   IN CORRECT ORDER Z 5 3221  B C54 U           329
2087 19 48   ADDREC  A     DALOC,IMAGE&61          CREATE ADDRESS FOR Z 7 3226  A F30 161         329
2088 19 49           A     DALOC,IMAGE&66           FIELDS         Z   7   3233  A F30 166         329
2089 19 50           BM    DAGET,IMAGE&75          Q. SUB FIELD    Z   8   3240  V ?60 175 K       329
2090 19 51           B     DALOOP                                  Z   4   3248  B ?37             329
2091 19 52   SUBFLD  MLZS  BBIT,IMAGE&75           PROCESS SUBFIELDS Z 7 3252  Y 188 175         330
2092 19 53           MLC   IMAGE&66,IMAGE&61                      Z   7   3259  M 166 161         330
2093 19 54           B     ADDREC                                  Z   4   3266  B B26             330
2094 19 55   PUTIT   B     PUT                                     Z   4   3270  B 610             330
2095 19 56           BW    *&8,MARKSW              Q. RECORD MARK LOOP Z 8 3274  V B89 H88 1       330
2096 19 57           MZ    ABIT,IMAGE&75           CODE REPEATS    Z   7   3282  Y 187 175         330
2097 19 58           A     &1,B2CNTR                               Z   7   3289  A F18 H67         331
2098 19 59           A     RECNTR,IMAGE&61         COMPUTE FIELD LIMITS Z 7 3296  A F24 161         331
2099 19 60           A     RECNTR,IMAGE&66                         Z   7   3303  A F24 166         331
2100 19 61           B     DAPUT                                   Z   4   3310  B ?48             331
2101 19 62   DAERR   MLZS  ABBIT,IMAGE&4           IMPROPERLY CODED DA Z 7 3314  Y 189 104         331
2102 19 63           ZA    &1,BLKCTR                HEADER ROUTINE Z   7   3321  ? F18 F17         331
2103 19 64           ZA    &1,RECNTR                               Z   7   3328  ? F18 F24         332
2104 19 65           B     CMPSZ                                   Z   4   3335  B P06             332
2105 19 66   TFERR   SBR   *&11                    MARK ERROR      Z   4   3339  H C53             332
2106 19 67           MZ    ABIT,IMAGE&5                            Z   7   3343  Y 187 105         332
2107 19 68           B     XXXX                                    Z   4   3350  B 000             332
2108 19 69   FLDERR  MZ    BBIT,IMAGE&5            IMPROPERLY CODED DA Z 7 3354  Y 188 105         332
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2109 19 70          B     DAPUT2                   FIELD ROUTINE  Z   4  3361  B ?90             332
2110 19 71   DACLR  CW    DACSW#1                  PROCESS CLEAR OPTION Z  4  3365  ) F55             333
2111 19 72          B     DATWO                    ON HEADER RECORD  Z   4  3369  B C95             333
2112 19 73   DAINDX MLNS  INPUT&22&X2,IMAGE&27     PROCESS INDEXING ON  Z   7  3373  D 0K2 127         333
2113 19 74          A     &3,XL2                   HEADER RECORD  Z   7  3380  A F56 094         333
2114 19 75          B     FINHED                                  Z   4  3387  B O59             333
2115 19 76   DAGMRK CW    DGMKSW#1                 INITIALIZE TO SHOW  Z   4  3391  ) F57             333
2116 19 77   DATWO  A     &2,XL2                   THERE IS GROUP  Z   7  3395  A F19 094         333
2117 19 78          B     FINHED                   MARK AFTER AREA  Z   4  3402  B O59             334
2118 19 79   DAFMRK A     &1,RECNTR                INITIALIZE TO SHOW  Z   7  3406  A F18 F24         334
2119 19 80          CW    FRMKSW#1                 PRESENCE OF RECORD  Z   4  3413  ) F58             334
2120 19 81          B     DATWO                    MARKS BETWEEN RECORDS Z  4  3417  B C95             334
2121 19 82   CKFMRK SW    MARKSW                                  Z   4  3421  , H88             334
2122 19 83          BW    CKFNLG,FRMKSW            Q. RECORD MARKS  Z   8  3425  V E02 F58 1       334
2123 19 84          MLC   @@|@@,IMAGE&25           GENERATE -B- NUMBER  Z  7  3433  M F61 125         334
2124 19 85          MLC   @DC *@,IMAGE&17          OF RECORD MARKS  Z   7  3440  M F65 117         335
2125 19 86          MLC                                           Z   1  3447  M                 335
2126 19 87          MLC   &1,IMAGE&75                            Z   7  3448  M F18 175         335
2127 19 88          MLC   @01@,IMAGE&7                          Z   7  3455  M F67 107         335
2128 19 89          MLC   DALOC,IMAGE&61                       Z   7  3462  M F30 161         335
2129 19 90          A     RECNTR,IMAGE&61                       Z   7  3469  A F24 161         335
2130 19 91          BW    DALOOP,NUMSW                          Z   8  3476  V ?37 F31 1       336
2131 19 92          MCW   BLANK,IMAGE&17                       Z   7  3484  M H59 117         336
2132 19 93          MZ    ABBIT,IMAGE&3                         Z   7  3491  Y 189 103         336
2133 19 94          B     DALOOP                                Z   4  3498  B ?37             336
2134 19 95   CKFNLG BW    CALLOP,DGMKSW            Q. SET GROUP MARK  Z   8  3502  V E93 F57 1       336
2135 19 96          MLC   @DCW@,IMAGE&16           GENERATE RECORD TO SET Z 7  3510  M F70 116         337
2136 19 97          MLC   @1@,IMAGE&75             GROUP MARK AT END OF  Z  7  3517  M F71 175         337
2137 19 98          MLC   @01@,IMAGE&7             DA STATEMENT  Z   7  3524  M F67 107         337
2138 19 99          MCW   GMKADD,IMAGE&61                       Z   7  3531  M F53 161         337
2139 20 00          MLC   @@}@@,IMAGE&25                        Z   7  3538  M F74 125         337
2140 20 01          BW    GMKAST,NUMSW                          Z   8  3545  V E75 F31 1       338
2141 20 02          MCW   BLANK,IMAGE&17                       Z   7  3553  M H59 117         338
2142 20 03          MZ    ABBIT,IMAGE&3                         Z   7  3560  Y 189 103         338
2143 20 04   PUTGMK B     PUT                      PUT GROUP MARK RECORD  Z  4  3567  B 610             338
2144 20 05          B     CALLOP                   GO BACK TO MAIN LINE  Z  4  3571  B E93             338
2145 20 06   GMKAST A     &1,ORGCTR                             Z   7  3575  A F18 H58         338
2146 20 07          MCW   @*@,IMAGE&17                         Z   7  3582  M F25 117         339
2147 20 08          B     PUTGMK                                Z   4  3589  B E67             339
2148 20 09   CALLOP BSP   INTAP                                 Z   5  3593  U %U4 B           339
2149 20 10          B     GET                                   Z   4  3598  B 538             339
2150 20 11          CW    MARKSW,GRPMK6                         Z   7  3602  ) H88 G55         339
2151 20 12          B     FINDA                                 Z   4  3609  B M62            339
2152 20 13   BLKCTR DCW   &00000                                Z   5  3617                   339
2153 20 14          LTORG *                                     Z        3618
                    DCW   &1                                    Z   1  3618            LIT    340
                          &2                                    Z   1  3619            LIT    340
       1976  RECNTR       #05                                   Z   5  3624            AREA   340
                          @*@                                   Z   1  3625            LIT    340
       1993  DALOC        #05                                   Z   5  3630            AREA   340
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SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		1998	NUMSW		#01		Z	1	3631		AREA	340
		2006	HEDSW		#01		Z	1	3632		AREA	340
					@A@		Z	1	3633		LIT	341
					@DC @		Z	3	3636		LIT	341
					@19@		Z	2	3638		LIT	341
					&0020		Z	4	3642		LIT	341
					&19		Z	2	3644		LIT	341
					&0000		Z	4	3648		LIT	341
		2061	GMKADD		#05		Z	5	3653		AREA	341
					&0		Z	1	3654		LIT	342
		2110	DACSW		#01		Z	1	3655		AREA	342
					&3		Z	1	3656		LIT	342
		2115	DGMKSW		#01		Z	1	3657		AREA	342
		2119	FRMKSW		#01		Z	1	3658		AREA	342
					@@|@@		Z	3	3661		LIT	342
					@DC *@		Z	4	3665		LIT	342
					@01@		Z	2	3667		LIT	343
					@DCW@		Z	3	3670		LIT	343
					@1@		Z	1	3671		LIT	343
					@@}@@		Z	3	3674		LIT	343
2154	20	15		DA	1X80		Z		3675	3754		343
2155	20	16	DAHLD		80		Z		3754		SBFLD	
2156	20	17	GRPMK6	DCW	@}@	SYSTEM GROUP MARK	Z	1	3755			344
2157	20	18		EX	DOZERO		Z			B 000		345

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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

2158 20 19           JOB   1401 AUTOCODER-PASS 4 PROCESS LITERALS    -VERSION 3
2159 20 20           ORG   DOPROG                                    Z          2575
2160 20 21  OVLLIT   WTM   LITAPE                                    Z   5  2575  U %U6 M             348
2161 20 22           WTW   LITAPE,IMAGE&1          SAVE IMAGE AREA   Z   8  2580  L %U6 101 W         348
2162 20 23           NOP   0                                         Z   4  2588  N 000               348
2163 20 24           BER   TPERR                                     Z   5  2592  B 221 L             348
2164 20 25           BEF   *&1                      RESET EOF TRIGGER Z   5  2597  B O02 K             348
2165 20 26           WTW   LITAPE,IMAGE&1          NOTE - MUST WRITE OUT Z 8  2602  L %U6 101 W         348
2166 20 27           NOP   0                         IMAGE AREA TWICE  Z   4  2610  N 000               348
2167 20 28           BER   TPERR                     BECAUSE EOF TREATED Z 5  2614  B 221 L             349
2168 20 29  *                                          AS NOISE RECORD
2169 20 30           RWD   LITAPE                                    Z   5  2619  U %U6 R             349
2170 20 31           BSP   SYSTAP                   POSITION SYSTEM TAPE Z 5  2624  U %U1 B             349
2171 20 32           BSP   SYSTAP                    TO BRING BACK     Z   5  2629  U %U1 B             349
2172 20 33           BSP   SYSTAP                    MAIN LINE         Z   5  2634  U %U1 B             349
2173 20 34           CW    GRPMK7                                    Z   4  2639  ) Q27              349
2174 20 35           CS    INPUT&80                 BLANK INPUT AND FIXED Z 4  2643  / 080              349
2175 20 36           SW    INPUT&16,LITSW2           FORM AREA        Z   7  2647  , 016 H90           350
2176 20 37           MRCM  INPUT&1,IMAGE&1                           Z   7  2654  P 001 101           350
2177 20 38           MLC   BLANK4,IMAGE&80                          Z   7  2661  M H62 180           350
2178 20 39           S     XL2&2                                     Z   4  2668  S 096              350
2179 20 40           S                                               Z   1  2672  S                  350
2180 20 41           MLC   @DCW@,IMAGE&16                           Z   7  2673  M Q15 116           350
2181 20 42  LITGB    MCW   &INPUT&13,N2&6                           Z   7  2680  M Q18 446           351
2182 20 43           RT    LITAPE,INPUT&1           READ IN LITERAL  Z   8  2687  M %U6 001 R         351
2183 20 44           B     NOISE                    CHECK FOR NOISE  Z   4  2695  B 425              351
2184 20 45           BER   TPERR                                     Z   5  2699  B 221 L             351
2185 20 46           BEF   RTNLIT                   Q. ANY MORE LITERALS Z 5  2704  B P39 K             351
2186 20 47           MCW   INPUT&4,IMAGE&70         CODE MOTHER RECD NUMBR Z 7 2709  M 004 170           351
2187 20 48           MLC   @/@,IMAGE&75             CODE RECORD      Z   7  2716  M Q19 175           352
2188 20 49           B     PROLBL                   PROCESS LABEL    Z   4  2723  B V38              352
2189 20 50           B     DCWCD                    PROCESS STATEMENT Z  4  2727  B Y11              352
2190 20 51  LITRTN   B     PUT                      PUT RECORD       Z   4  2731  B 610              352
2191 20 52           B     LITGB                                     Z   4  2735  B O80              352
2192 20 53  RTNLIT   MCW   &IMAGE&13,N2&6                          Z   7  2739  M Q22 446           352
2193 20 54           RTW   LITAPE,IMAGE&1           REGENERATE IMAGE AREA Z 8 2746  L %U6 101 R         352
2194 20 55           B     NOISE                    CHECK FOR NOISE  Z   4  2754  B 425              353
2195 20 56           BER   TPERR                                     Z   5  2758  B 221 L             353
2196 20 57           RWD   LITAPE                                    Z   5  2763  U %U6 R             353
2197 20 58           SW    LITSW                    RESET LITERAL SWITCH Z 4  2768  , N46              353
2198 20 59           CW    LITSW2                                    Z   4  2772  ) H90              353
2199 20 60           A     &10,EXNUMB               SECTION TO GUARANTEE Z 7  2776  A Q24 193           353
2200 20 61           BCE   *&5,EXNUMB-1,0            UNIQUENESS OF    Z   8  2783  B P95 192 0         353
2201 20 62           B     RECALL                    LITERAL LABELS UP TO Z 4  2791  B U68              354
2202 20 63           A     &96,EXOVFL                80 LTORG OR EX CARDS Z 7  2795  A Q26 191           354
2203 20 64           A     &96,EXOVFL                                Z   7  2802  A Q26 191           354
2204 20 65           B     RECALL                                    Z   4  2809  B U68              354
2205 20 66           LTORG *                                         Z          2813
                     DCW   @DCW@                                     Z   3  2815              LIT     354
      2181                 &INPUT&13                                 Z   3  2818  013         ADCON   354
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SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					@/@		Z	1	2819		LIT	354
		2192			&IMAGE&13		Z	3	2822	113	ADCON	355
					&10		Z	2	2824		LIT	355
					&96		Z	2	2826		LIT	355
2206	20	67	GRPMK7	DCW	@}@	SYSTEM GROUP MARK	Z	1	2827			355
2207	20	68		EX	DOZERO		Z			B 000		356

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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

2208 20 69           JOB   1401 AUTOCODER-PASS 4 END OF PASS OVERLAY -VERSION 3
2209 20 70           ORG   SAVE2                                     Z          0706
2210 20 71   EOJRT   RWD   LITAPE                                    Z   5  0706  U %U6 R            359
2211 20 72           B     PUT                   PUT END CARD        Z   4  0711  B 610              359
2212 20 73           WT    OUTAP,OUTPUT&1        ASSURE LAST RECORD  Z   8  0715  M %U5 I18 W        359
2213 20 74           NOP   0                      IS WRITTEN         Z   4  0723  N 000              359
2214 20 75           BER   TPERR                  WHEN BLOCKING      Z   5  0727  B 221 L            359
2215 20 76           WTM   OUTAP                                    Z   5  0732  U %U5 M            359
2216 20 77           RWD   OUTAP                                    Z   5  0737  U %U5 R            359
2217 20 79           CS    INPUT&85              CLEAR ALL GROUP     Z   4  0742  / 085              360
2218 20 80           CW    GRPMK2,GRPMK3          MARKS              Z   7  0746  ) G59 H44          360
2219 20 81           CW    GRPMK4                                   Z   4  0753  ) 185              360
2220 20 82           RTW   SYSTAP,PASSC1         READ PASS 5         Z   8  0757  L %U1 Z25 R        360
2221 20 83           NOP   0                                        Z   4  0765  N 000              360
2222 20 84           BER   TPERR                                    Z   5  0769  B 221 L            360
2223 20 85           LCA   TOTLBL,2393           PASS INFORMATION TO Z   7  0774  L 198 L93          360
2224 20 86           LCA   PROCOR,2389            PASS 5             Z   7  0781  L 194 L89          361
2225 20 87           B     PASSC2                GO TO PASS 5        Z   4  0788  B M00              361
2226 20 88           DCW   0                                        Z   1  0792                     361
2227 20 89           DCW   @}@                   SYSTEM GROUP MARK   Z   1  0793                     361
2228 20 90           EX    0                                        Z          B 000              362
2229 20 91   *
2230 20 92   * EQUATES
2231 20 93   *
2232 20 94   INTAP   EQU   %U4                                      Z      %U4
2233 20 95   OUTAP   EQU   %U5                                      Z      %U5
2234 20 96   LITAPE  EQU   %U6                                      Z      %U6
2235 20 97   K4K     EQU   4000                                     Z      4000
2236 20 98   W3AREA  EQU   W6AREA-3               EQUATES           Z      3874
2237 20 99   W5AREA  EQU   W6AREA-1                                 Z      3876
2238 21 00   BLANK   EQU   BLANK4-3                                 Z      3859
2239 21 01   BLANK2  EQU   BLANK4-2                                 Z      3860
2240 21 02   HOLD2   EQU   B2CNTR-3                                Z      3864
2241 21 03   HOLD3   EQU   B2CNTR-2                                Z      3865
2242 21 04   ABIT    EQU   ZONE-2                                  Z      0187
2243 21 05   BBIT    EQU   ZONE-1                                  Z      0188
2244 21 06   ABBIT   EQU   ZONE                                    Z      0189
2245 21 07   XXXX    EQU   000                                     Z      0000
2246 21 08   INPUT   EQU   000                                     Z      0000
2247 21 09   OUTPUT  EQU   3917                                    Z      3917
2248 21 10   PASSC1  EQU   1925                                    Z      1925
2249 21 11   PASSC2  EQU   2400                                    Z      2400
2250 21 12   DOZERO  EQU   000                                     Z      0000
2251 21 13   FREE    EQU   INPUT                                   Z      0000
2252 21 14           END   START                                   Z          / N75 080          365
```

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CLEAR STORAGE 1     ,008015,019026,030,034041,045,053,0570571026                                    1
CLEAR STORAGE 2     L068112,102106,113/101099/I99,027A070028)027B0010270B0261,001/001113I0          2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039              ,0010011040         3


                          1401 AUTOCODER-PASS 5-PROCESS LABELS-INITL-VERSION 3       3751L               PAGE    1


 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

 101  1 01   000    JOB   1401 AUTOCODER-PASS 5-PROCESS LABELS-INITL-VERSION 3
 102  1 02          CTL   63011
 103  1 03   *
 104  1 04   * EQUATES USED BY PROGRAM
 105  1 05   *
 106  1 06   INITAP EQU   %U0                                                          %U0
 107  1 07   SYSTPE EQU   %U1                                                          %U1
 108  1 08   SAVETP EQU   %U4                                                          %U4
 109  1 09   CINPUT EQU   %U5                                                          %U5
 110  1 10   COUTPT EQU   %U6                                                          %U6
 111  1 11   DOUTPT EQU   %U5                                                          %U5
 112  1 12   DINPUT EQU   %U6                                                          %U6
 113  1 13   TABLE  EQU   2409                                                        2409
 114  1 14   ADDLO  EQU   TABLE-006&X2                                                2403 X
 115  1 15   SYMHO  EQU   TABLE-005&X2                                                2404 X
 116  1 16   ADDHO  EQU   TABLE-009&X2                                                2400 X
 117  1 17   LBLREF EQU   TABLE-008&X2                                                2401 X
 118  1 18   SYMBOL EQU   TABLE&X2                                                    2409 X
 119  1 19   CARD   EQU   0                                                           0000
 120  1 20   STAOP  EQU   CARD&001                                                    0001
 121  1 21   STLABL EQU   CARD&002                                                    0002
 122  1 22   STADDR EQU   CARD&003                                                    0003
 123  1 23   STBOP  EQU   CARD&004                                                    0004
 124  1 24   COUNT  EQU   CARD&007                                                    0007
 125  1 25   LABEL  EQU   CARD&013                                                    0013
 126  1 26   AOPER  EQU   CARD&022                                                    0022
 127  1 27   AOPADJ EQU   CARD&026                                                    0026
 128  1 28   AINDEX EQU   CARD&027                                                    0027
 129  1 29   ORGADD EQU   CARD&032                                                    0032
 130  1 30   CNVLAB EQU   CARD&056                                                    0056
 131  1 31   LABADD EQU   CARD&061                                                    0061
 132  1 32   SUPADD EQU   CARD&066                                                    0066
 133  1 33   AOP    EQU   CARD&070                                                    0070
 134  1 34   TYPE   EQU   CARD&075                                                    0075
 135  1 35   AOPHO  EQU   CARD&017                                                    0017
 136  1 36   LBLHO  EQU   CARD&008                                                    0008
 137  1 37   HOADD  EQU   CARD&057                                                    0057
 138  1 38   TPAREA EQU   3918                                                        3918
 139  1 39   INPUT  EQU   TPAREA-001&X3                                               3917 X
 140  1 40   LIMIT  EQU   TPAREA&13                                                   3931
 141  1 41   XXXX   EQU   0                                                           0000
 142  1 42   GPMRK3 EQU   3998                                                        3998
 143  1 43   LIBRN  EQU   0                                                           0000
 144  1 44   *
 145  1 45   *
 146  1 46   * GET, PUT, REDUNDANCY &
 147  1 47   * CROSSOVER ROUTINES COMMON
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
148  1 48   * TO BOTH PASSES
149  1 49   *
150  1 50   *
151  1 51          ORG   ENDOFC&1                                    1925
152  1 52   *
153  1 53   * GET & PUT
154  1 54   *
155  1 55   GET    C     BLKCT,KBLKNG                       7  1925  C L30 L26           4
156  1 56          BE    WRITE                              5  1932  B X67 S             4
157  1 57   NXTREC A     &80,BLKCT                          7  1937  A L36 L30           4
158  1 58          MCW   BLKCT,XR3                          7  1944  M L30 099           4
159  1 59   MOVEIN MCW   INPUT,CARD&080                     7  1951  M IA7 080           4
160  1 60          CHAIN 9                                                    MACRO
161               MCW                                      1  1958  M           GEN     4
162               MCW                                      1  1959  M           GEN     4
163               MCW                                      1  1960  M           GEN     5
164               MCW                                      1  1961  M           GEN     5
165               MCW                                      1  1962  M           GEN     5
166               MCW                                      1  1963  M           GEN     5
167               MCW                                      1  1964  M           GEN     5
168               MCW                                      1  1965  M           GEN     5
169               MCW                                      1  1966  M           GEN     5
170  1 61         S     XR3&001                            4  1967  S 100               6
171  1 62         S                                        1  1971  S                   6
172  1 63         S                                        1  1972  S                   6
173  1 64         B     ANAL                               4  1973  B 114               6
174  1 65   PUT    MCW   BLKCT,XR3                          7  1977  M L30 099           6
175  1 66          MCW   CARD&080,INPUT                     7  1984  M 080 IA7           6
176  1 67          CHAIN 9                                                    MACRO
177               MCW                                      1  1991  M           GEN     6
178               MCW                                      1  1992  M           GEN     7
179               MCW                                      1  1993  M           GEN     7
180               MCW                                      1  1994  M           GEN     7
181               MCW                                      1  1995  M           GEN     7
182               MCW                                      1  1996  M           GEN     7
183               MCW                                      1  1997  M           GEN     7
184               MCW                                      1  1998  M           GEN     7
185               MCW                                      1  1999  M           GEN     8
186  1 68         B     GET                                4  2000  B Z25               8
187  1 69   *
188  1 70   *TAPE REDUNDANCY ROUTINE
189  1 71   *
190  1 72   TPERR  SBR   XR1                                4  2004  H 089               8
191  1 73          SBR   REDXT&3                            4  2008  H !76               8
192  1 74          MZ    &9,XR1                             7  2012  Y L37 089           8
193  1 75          MCW   4000-10&X1,TPINST&7                7  2019  M IZ0 !67           8
194  1 76          MN    TPINST&3,BSP1&3                    7  2026  D !63 !43           8
195  1 77          MCW   TPINST&7,INST2&7                   7  2033  M !67 J76           9
196  1 78   BSP1   BSP   INITAP                            5  2040  U %U0 B             9
197  1 79          BCE   WRTRED,TPINST&7,W                  8  2045  B J49 !67 W         9
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
198  1 80          MCW   &9,READCT#1                               7  2053  M L37 L38           9
199  1 81   TPINST RT    INITAP,XXXX                               8  2060  M %U0 000 R         9
200  1 82          BER   RDRERR                                    5  2068  B !77 L            10
201  1 83   REDXT  B     XXXX                                      4  2073  B 000              10
202  1 84   RDRERR MN    TPINST&3,BSP2&3                           7  2077  D !63 !87          10
203  1 85   BSP2   BSP   INITAP                                    5  2084  U %U0 B            10
204  1 86          S     &1,READCT                                 7  2089  S L39 L38          10
205  1 87          BWZ   TPINST,READCT,B                           8  2096  V !60 L38 B        10
206  1 88          MN    TPINST&3,TPHALT&6                         7  2104  D !63 J17          11
207  1 89   TPHALT H     XXXX,590                                  7  2111  . 000 590          11
208  1 90          MCW   TPINST&7,*&8                              7  2118  M !67 J32          11
209  1 91          RT    INITAP,XXXX                               8  2125  M %U0 000 R        11
210  1 92          BSS   BSP1,E                                    5  2133  B !40 E            11
211  1 93   TPHLT3 H     XXXX,511                                  7  2138  . 000 511          12
212  1 94          B     REDXT                                     4  2145  B !73              12
213  1 95   WRTRED SKP   SYSTPE                                    5  2149  U %U1 E            12
214  1 96          BCE   SUBCTR,WRTCTR-1,5                         8  2154  B J86 L40 5        12
215  1 97          A     &1,WRTCTR#2                               7  2162  A L39 L41          12
216  1 98   INST2  WT    INITAP,XXXX                               8  2169  M %U0 000 W        12
217  1 99          BER   BSP1                                      5  2177  B !40 L            13
218  2 00          B     REDXT                                     4  2182  B !73              13
219  2 01   SUBCTR S     WRTCTR                                    4  2186  S L41              13
220  2 02          MN    TPINST&3,*&7                              7  2190  D !63 K03          13
221  2 03   TPHLT2 H     XXXX,560                                  7  2197  . 000 560          13
222  2 04          B     INST2                                     4  2204  B J69              13
223  2 05   *
224  2 06   * CHECK FOR SHORT RECORDS
225  2 07   *
226  2 08   CHKLGT SBR   XR1                                       4  2208  H 089              13
227  2 09          SBR   LGTXT&3                                   4  2212  H K46              14
228  2 10          MZ    &9,XR1                                    7  2216  Y L37 089          14
229  2 11   LGTCK  BCE   4000-12&X1,LIMIT,}                        8  2223  B IY8 I31 }        14
230  2 12          CHAIN 12                                                       MACRO
231                BCE                                             1  2231  B          GEN     14
232                BCE                                             1  2232  B          GEN     14
233                BCE                                             1  2233  B          GEN     14
234                BCE                                             1  2234  B          GEN     14
235                BCE                                             1  2235  B          GEN     15
236                BCE                                             1  2236  B          GEN     15
237                BCE                                             1  2237  B          GEN     15
238                BCE                                             1  2238  B          GEN     15
239                BCE                                             1  2239  B          GEN     15
240                BCE                                             1  2240  B          GEN     15
241                BCE                                             1  2241  B          GEN     15
242                BCE                                             1  2242  B          GEN     16
243  2 13   LGTXT  B     XXXX                                      4  2243  B 000              16
244  2 14   *
245  2 15   * CROSSOVER, C TO D
246  2 16   *
247  2 17   RDPSSD RTW   SYSTPE,1                                  8  2247  L %U1 001 R        16
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
248  2 18           NOP   XXXX                                      4  2255  N 000               16
249  2 19           BER   TPERR                                     5  2259  B !04 L             16
250  2 20           CW    ENDOFD                                    4  2264  ) Y68               16
251  2 21           B     PASSD                                     4  2268  B S90               16
252  2 22   *
253  2 23   * CROSSOVER, D TO C
254  2 24   *
255  2 25   RDPSSC RTW   COUTPT,1                                  8  2272  L %U6 001 R         17
256  2 26           NOP   XXXX                                      4  2280  N 000               17
257  2 27           BER   TPERR                                     5  2284  B !04 L             17
258  2 28           CW    ENDOFC                                    4  2289  ) Z24               17
259  2 29           B     CLRTAB                                    4  2293  B Y13               17
260  2 30   *
261  2 31   * COMMON CONSTANTS
262  2 32   *
263  2 33   CLRMAX DCW   @I97@                                     3  2299                      17
264  2 34   CLRMIN DSA   TABLE-010                                 3  2302  L99                 17
265  2 35   FNCTN  DCW   @      @                                  6  2308                      18
266  2 36   TABMAX DCW   @V00@                                     3  2311                      18
267  2 37   MAXADD DCW   @   @                                     3  2314                      18
268  2 38   TABLSZ DCW   &0150                                     4  2318                      18
269  2 39   MAXSER DCW   @    @                                    4  2322                      18
270  2 40   SFXCTR DCW   @ @                                       1  2323                      18
271  2 41   KBLKNG DCW   @080@                                     3  2326                      18
272  2 42   BUMPOP DCW   @#@                                       1  2327                      19
273  2 43   HOLDA  DCW   &0000                                     4  2331                      19
274  2 44   BLKCT  EQU   HOLDA-001                                    2330
275  2 45   TPAD   DSA   TPAREA                                    3  2334  I18                 19
276  2 46           LTORG *                                           2335
                      DCW   &80                                    2  2336            LIT   19
                            &9                                     1  2337            LIT   19
       198 READCT           #01                                    1  2338            AREA  19
                            &1                                     1  2339            LIT   19
       215 WRTCTR           #02                                    2  2341            AREA  20
277  2 47   *
278  2 48   * PROTECTED CONSTANTS
279  2 49   *
280  2 50   FACTOR EQU   TABLE-021                                    2388
281  2 51   MACHSZ EQU   TABLE-020                                    2389
282  2 52   TOTLAB EQU   TABLE-016                                    2393
283  2 53   UNPRSW EQU   TABLE-015                                    2394
284  2 54   PROCSW EQU   TABLE-014                                    2395
285  2 55   SERCHS EQU   TABLE-010                                    2399
286  2 56   *
287  2 57   * INITIALIZE PASS C ONE TIME
288  2 58   *
289  2 59           ORG   TABLE-009                                      2400
290  2 60           RWD   SAVETP                                    5  2400  U %U4 R             21
291  2 61           RWD   CINPUT                                    5  2405  U %U5 R             21
292  2 62           RWD   COUTPT                                    5  2410  U %U6 R             21
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
293  2 63          CS    3999                                4  2415  / I99               21
294  2 64          SW    GRPMRK                              4  2419  , Q66               21
295  2 65          LCA   @00@,PROCSW                        7  2423  L Q68 L95           21
296  2 66          LCA   &0150,SERCHS                       7  2430  L Q72 L99           21
297  2 67          LCA   @0015@,FACTOR                     7  2437  L Q76 L88           22
298  2 68          RTW   SYSTPE,1                          8  2444  L %U1 001 R         22
299  2 69          NOP   XXXX                              4  2452  N 000               22
300  2 70          BER   TPERR                             5  2456  B !04 L             22
301  2 71          CW    ENDINT                            4  2461  ) R01               22
302  2 72    *
303  2 73    * SET I/O GROUP MARK
304  2 74    *
305  2 75          MCW   MACHSZ,KEEP1#001                  7  2465  M L89 Q77           22
306  2 76          A     &3,KEEP1                          7  2472  A Q78 Q77           23
307  2 77          MN    KEEP1,*&004                       7  2479  D Q77 M89           23
308  2 78          MZ    ZONE2,*&007                       7  2486  Y 109 M99           23
309  2 79    SETIO LCA   GRPMRK,GPMRK3                     7  2493  L Q66 I98           23
310  2 80          BWZ   SETBMP,SETIO&006,2                8  2500  V P18 M99 2         23
311  2 81          CS    4799                              4  2508  / 79Z               24
312  2 82          CS    4399                              4  2512  / 39Z               24
313  2 83          MCW   @#@,BUMP                          7  2516  M Q79 W81           24
314  2 84          BCE   SET8K,MACHSZ,4                    8  2523  B O20 L89 4         24
315  2 85    *
316  2 86    * 12K CONSTANTS
317  2 87    *
318  2 88          MCW   BLKG12,KBLKNG                     7  2531  M Q52 L26           24
319  2 89          MCW   TBSZ12,TABLSZ                     7  2538  M Q56 L18           24
320  2 90          MCW   TBLM12,TABMAX                     7  2545  M Q59 L11           25
321  2 91          MCW   TPAD12,TPAD                       7  2552  M Q62 L34           25
322  2 92          MCW   MDTP12,MDTP#003                   7  2559  M Q65 Q82           25
323  2 93          A     &72,FACTOR                        7  2566  A Q84 L88           25
324  2 94          BCE   SETTP,MACHSZ,5                    8  2573  B O62 L89 5         25
325  2 95    *
326  2 96    * 16K CONSTANTS
327  2 97    *
328  2 98          A     &400,TABLSZ                       7  2581  A Q87 L18           26
329  2 99          A     &40,FACTOR                        7  2588  A Q89 L88           26
330  3 00          MZ    ABBIT,TABMAX                      7  2595  Y 113 L11           26
331  3 01          MZ    ABBIT,TPAD                        7  2602  Y 113 L34           26
332  3 02          MZ    ABBIT,MDTP                        7  2609  Y 113 Q82           26
333  3 03          B     SETTP                             4  2616  B O62               26
334  3 04    *
335  3 05    * 8K CONSTANTS
336  3 06    *
337  3 07    SET8K MCW   BLKG8K,KBLKNG                     7  2620  M Q36 L26           27
338  3 08          MCW   TBSZ8K,TABLSZ                     7  2627  M Q40 L18           27
339  3 09          MCW   TBLM8K,TABMAX                     7  2634  M Q43 L11           27
340  3 10          MCW   TPAD8K,TPAD                       7  2641  M Q46 L34           27
341  3 11          MCW   MDTP8K,MDTP                       7  2648  M Q49 Q82           27
342  3 12          A     &36,FACTOR                        7  2655  A Q91 L88           28
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

343  3 13   SETTP  MZ    TPAD,CLRMAX                                    7  2662  Y L34 K99           28
344  3 14          MCW   MDTP,MOVEIN&003                                7  2669  M Q82 Z54           28
345  3 15          MCW   MDTP,PUT&013                                   7  2676  M Q82 Z90           28
346  3 16          MCW   TPAD,WRITE&006                                 7  2683  M L34 X73           28
347  3 17          MCW   TPAD,READ&010                                  7  2690  M L34 X98           29
348  3 18          MCW   TPAD,LIMAD#3                                   7  2697  M L34 Q94           29
349  3 19          MA    &13,LIMAD                                      7  2704  # Q96 Q94           29
350  3 20          MCW   LIMAD,LGTCK&6                                  7  2711  M Q94 K29           29
351  3 21   SETBMP MCW   BUMP,BUMPOP                                    7  2718  M W81 L27           29
352  3 22          LCA   GRPMRK,ENDOFC                                  7  2725  L Q66 Z24           30
353  3 23   *
354  3 24   * WRITE PASS C CHECKPOINT ON 6
355  3 25   *
356  3 26          CS    80                                             4  2732  / 080               30
357  3 27          SW    CARD&001,CARD&006                              7  2736  , 001 006           30
358  3 28          SW    CARD&017,CARD&024                              7  2743  , 017 024           30
359  3 29          SW    CARD&028,CARD&035                              7  2750  , 028 035           30
360  3 30          SW    CARD&057,CARD&062                              7  2757  , 057 062           30
361  3 31          SW    CARD&068,CARD&071                              7  2764  , 068 071           31
362  3 32          WTW   COUTPT,1                                       8  2771  L %U6 001 W         31
363  3 33          NOP   XXXX                                           4  2779  N 000               31
364  3 34          BER   TPERR                                          5  2783  B !04 L             31
365  3 35          CW    ENDOFC,GRPMRK                                  7  2788  ) Z24 Q66           31
366  3 36          C     TOTLAB,TABLSZ                                  7  2795  C L93 L18           31
367  3 37          MCW   TABLSZ,SERCHS                                  7  2802  M L18 L99           32
368  3 38          S     TOTLAB                                         4  2809  S L93               32
369  3 39          BE    CLRTAB                                         5  2813  B Y13 S             32
370  3 40          BH    CLRTAB                                         5  2818  B Y13 U             32
371  3 41          MCW   &0009,SERCHS                                   7  2823  M R00 L99           32
372  3 42          B     CLRTAB                                         4  2830  B Y13               32
373  3 43   BLKG8K DCW   @400@                                          3  2836                      32
374  3 44   TBSZ8K DCW   &0510                                          4  2840                      33
375  3 45   TBLM8K DSA   5100                                           3  2843  /0|                 33
376  3 46   TPAD8K DSA   7598                                           3  2846  E9Y                 33
377  3 47   MDTP8K DSA   7597&X3                                        3  2849  EIX                 33
378  3 48   BLKG12 DCW   @800@                                          3  2852                      33
379  3 49   TBSZ12 DCW   &0870                                          4  2856                      33
380  3 50   TBLM12 DSA   8700                                           3  2859  70!                 33
381  3 51   TPAD12 DSA   11198                                          3  2862  A9Q                 34
382  3 52   MDTP12 DSA   11197&X3                                       3  2865  AIP                 34
383  3 53   GRPMRK DC    @}@                                            1  2866                      34
384  3 54          LTORG *                                                      2867
                    DCW   @00@                                           2  2868             LIT     34
                          &0150                                          4  2872             LIT     34
                          @0015@                                         4  2876             LIT     34
       305  KEEP1        #01                                            1  2877             AREA    34
                          &3                                             1  2878             LIT     34
                          @#@                                            1  2879             LIT     35
       322  MDTP         #03                                            3  2882             AREA    35
                          &72                                            2  2884             LIT     35
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					&400		3	2887		LIT	35
					&40		2	2889		LIT	35
					&36		2	2891		LIT	35
		348	LIMAD		#03		3	2894		AREA	35
					&13		2	2896		LIT	36
					&0009		4	2900		LIT	36
385	3	55	ENDINT	DCW	@}@		1	2901			36
386	3	56		XFR	LIBRN				B 000		37

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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

387  3 57          JOB   1401 AUTOCODER-PASS 5 MAIN LINE          -VERSION 3
388  3 58   *
389  3 59   * PASS C-LOAD SYMBOL TABLE & SET ADDRESSES
390  3 60   *
391  3 61   ZONE   EQU   113                                                     0113
392  3 62   113    DCW   @2SKB@                                                4  0113                      40
393  3 63   ZONE2  EQU   109                                                     0109
394  3 64   109    DCW   @2SKB@                                                4  0109                      41
395  3 65   ABBIT  EQU   ZONE                                                    0113
396  3 66   BBIT   EQU   ZONE-001                                                0112
397  3 67   ABIT   EQU   ZONE-002                                                0111
398  3 68   NOBIT  EQU   ZONE-003                                                0110
399  3 69   XR1    EQU   89                                                      0089
400  3 70   89     DCW   @000@                                                 3  0089                      42
401  3 71   XR2    EQU   94                                                      0094
402  3 72   94     DCW   @000@                                                 3  0094                      43
403  3 73   XR3    EQU   99                                                      0099
404  3 74   99     DCW   @000@                                                 3  0099                      44
405  3 75          ORG   ZONE&001                                                        0114
406  3 76   *
407  3 77   * DETERMINE RECORD TYPE
408  3 78   *
409  3 79   ANAL   BM    PUT,CARD&005                                          8  0114  V Z77 005 K         45
410  3 80          BCE   PUT,TYPE,%                                            8  0122  B Z77 075 %         45
411  3 81          BCE   INSTR,TYPE,                                           8  0130  B 219 075           45
412  3 82          MN    TYPE,XR2                                              7  0138  D 075 094           45
413  3 83          BCE   DA,XR2,0                                              8  0145  B 871 094 0         45
414  3 84          MCW   @0@,INDFTR                                            7  0153  M Y92 Y69           46
415  3 85          MCW   @0@,DASW                                              7  0160  M Y92 Y68           46
416  3 86          A     XR2                                                   4  0167  A 094               46
417  3 87          A     XR2                                                   4  0171  A 094               46
418  3 88          B     *&001&X2                                              4  0175  B 1P9               46
419  3 89          NOP   XXXX                                                  4  0179  N 000               46
420  3 90          B     CONST                                                 4  0183  B 260               46
421  3 91          B     CONST                                                 4  0187  B 260               47
422  3 92          B     EXEND                                                 4  0191  B 973               47
423  3 93          B     SFX                                                   4  0195  B 992               47
424  3 94          B     PUT                                                   4  0199  B Z77               47
425  3 95          B     ORG                                                   4  0203  B 376               47
426  3 96          B     DS                                                    4  0207  B 295               47
427  3 97          B     PUT                                                   4  0211  B Z77               47
428  3 98          B     PUT                                                   4  0215  B Z77               48
429  3 99   *
430  4 00   * PROCESS INSTRUCTIONS
431  4 01   *
432  4 02   INSTR  MCW   @0@,INDFTR                                            7  0219  M Y92 Y69           48
433  4 03          B     PRCADD                                                4  0226  B |03               48
434  4 04          B     PROCLB                                                4  0230  B /09               48
435  4 05          BWZ   PUT,STADDR,2                                          8  0234  V Z77 003 2         48
436  4 06          A     COUNT,NOWCTR                                          7  0242  A 007 Y48           48
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
437  4 07          S     @1@,NOWCTR                                7  0249  S Y93 Y48           49
438  4 08          B     PUT                                       4  0256  B Z77               49
439  4 09   *
440  4 10   * PROCESS CONSTANTS & DSA
441  4 11   *
442  4 12   CONST  BCE   PRCAST,AOPHO,*                           8  0260  B 283 017 *         49
443  4 13          MCW   @1@,ACTSW                                 7  0268  M Y93 Y67           49
444  4 14          B     PROCLB                                    4  0275  B /09               49
445  4 15          B     PUT                                       4  0279  B Z77               49
446  4 16   *
447  4 17   * CONSTANTS WITH ASTERISK ADDRESS
448  4 18   *
449  4 19   PRCAST B     PRCADD                                    4  0283  B |03               49
450  4 20          B     PROCLB                                    4  0287  B /09               50
451  4 21          B     PUT                                       4  0291  B Z77               50
452  4 22   *
453  4 23   * PROCESS DS & EQUATES
454  4 24   *
455  4 25   DS     BCE   PROCTU,AOPHO,%                           8  0295  B 361 017 %         50
456  4 26          A     AINDEX,INDFTR                             7  0303  A 027 Y69           50
457  4 27          BCE   CONST,AOPHO,*                           8  0310  B 260 017 *         50
458  4 28          BWZ   CONST,AOPHO,2                           8  0318  V 260 017 2         50
459  4 29          BWZ   *&005,STAOP,2                           8  0326  V 338 001 2         51
460  4 30          B     CONST                                     4  0334  B 260               51
461  4 31   *
462  4 32   * EQUATE
463  4 33   *
464  4 34          B     SETAOP                                    4  0338  B U35               51
465  4 35          MCW   DSAPUT,LABRTN&003                         7  0342  M Y72 S97           51
466  4 36          BWZ   UNPROC,STAOP,2                          8  0349  V /81 001 2         51
467  4 37          B     CONST                                     4  0357  B 260               51
468  4 38   *
469  4 39   * DS OF INPUT DEVICE
470  4 40   *
471  4 41   PROCTU MCW   AOPER-003,LABADD-001                      7  0361  M 019 060           52
472  4 42          MCW   @0@                                       4  0368  M Y92               52
473  4 43          B     CONST                                     4  0372  B 260               52
474  4 44   *
475  4 45   * PROCESS ORIGIN & LITERAL ORIGIN
476  4 46   *
477  4 47   ORG    BWZ   SETHGH,CARD&033,B                        8  0376  V 405 033 B         52
478  4 48          ZA    LABADD,ORGADD                             7  0384  ? 061 032           52
479  4 49          A     @1@,ORGADD                                7  0391  A Y93 032           52
480  4 50          MZ    ABBIT,CARD&033                            7  0398  Y 113 033           53
481  4 51   SETHGH BCE   ORGSAV,MAXSW,1                          8  0405  B 432 Y60 1         53
482  4 52          C     NOWCTR,HGHCTR                             7  0413  C Y48 Y58           53
483  4 53          BH    ORGSAV                                    5  0420  B 432 U             53
484  4 54          ZA    NOWCTR,HGHCTR                             7  0425  ? Y48 Y58           53
485  4 55   *
486  4 56   * PROCESS SAVE COUNTER OF ORIGIN
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
487  4 57   *
488  4 58   ORGSAV BCE   AOPOR,LBLHO,                             8  0432  B 536 008           54
489  4 59          MCW   @005@,XR1                                7  0440  M Y96 089           54
490  4 60          MCW   &AOPOR,LABRTN&003                        7  0447  M Y99 S97           54
491  4 61          BWZ   *&005,STLABL,2                          8  0454  V 466 002 2         54
492  4 62          B     AOPOR                                    4  0462  B 536               54
493  4 63          BCE   STRSAV,SUPADD,                           8  0466  B 502 066           55
494  4 64   BTOLAB B     DOLABL                                   4  0474  B T58               55
495  4 65          B     SEARCH                                   4  0478  B W29               55
496  4 66          BCE   STORE,DBLSW,1                           8  0482  B S69 Y64 1         55
497  4 67          BCE   STORE,SPCSW,0                           8  0490  B S69 Y63 0         55
498  4 68          B     UNPROC                                   4  0498  B /81               55
499  4 69   STRSAV BCE   UNPROC,ADDRSW,1                         8  0502  B /81 Y59 1         56
500  4 70          BCE   UNPROC,LITRSW,1                         8  0510  B /81 Y61 1         56
501  4 71          MCW   NOWCTR,SUPADD                          7  0518  M Y48 066           56
502  4 72          A     @1@,SUPADD                               7  0525  A Y93 066           56
503  4 73          B     BTOLAB                                   4  0532  B 474               56
504  4 74   *
505  4 75   * PROCESS A OPERAND OF ORIGIN
506  4 76   *
507  4 77   AOPOR  BWZ   *&005,STAOP,2                           8  0536  V 548 001 2         57
508  4 78          B     ACTUAL                                   4  0544  B 761               57
509  4 79          BCE   ASTRSK,AOPHO,*                          8  0548  B 708 017 *         57
510  4 80          MCW   @0@,LITRSW                             7  0556  M Y92 Y61           57
511  4 81          S     NOWCTR                                   4  0563  S Y48               57
512  4 82          BCE   BLKAOP,AOPHO,                          8  0567  B 735 017           57
513  4 83   *
514  4 84   * SYMBOLIC ORIGIN
515  4 85   *
516  4 86          MCW   @0@,ORGSW                              7  0575  M Y92 Y66           58
517  4 87          S     XR1&001                                  4  0582  S 090               58
518  4 88          B     SETAOP                                   4  0586  B U35               58
519  4 89          BCE   SETORG,ORGSW,1                         8  0590  B 609 Y66 1         58
520  4 90   SETSWS MCW   @11@,MAXSW                            7  0598  M Z01 Y60           58
521  4 91          B     SCNTB&7                                  4  0605  B 813               58
522  4 92   SETORG MCW   LABADD,ORGCTR                          7  0609  M 061 Y53           59
523  4 93   RSTSWA MCW   @0@,ADDRSW                            7  0616  M Y92 Y59           59
524  4 94          BCE   *&005,AOPADJ-002,X                     8  0623  B 635 024 X         59
525  4 95          B     AOPOUT                                   4  0631  B 669               59
526  4 96   *
527  4 97   * ADJUSTMENT OF X00
528  4 98   *
529  4 99          BCE   NXTCNT,AOPHO,*                         8  0635  B 655 017 *         59
530  5 00          C     ORGCTR,&00                               7  0643  C Y53 Z03           60
531  5 01          BE    AOPOUT                                   5  0650  B 669 S             60
532  5 02   NXTCNT MCW   &00,ORGCTR                             7  0655  M Z03 Y53           60
533  5 03          A     @1@,ORGCTR-002                           7  0662  A Y93 Y51           60
534  5 04   AOPOUT A     ORGCTR,ORGADD                            7  0669  A Y53 032           60
535  5 05          ZA    ORGCTR,LABADD                            7  0676  ? Y53 061           61
536  5 06          ZA    ORGADD,NOWCTR                            7  0683  ? 032 Y48           61
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
537  5 07          S     @1@,NOWCTR                          7  0690  S Y93 Y48           61
538  5 08          MZ    ABBIT,STAOP                         7  0697  Y 113 001           61
539  5 09          B     PUT                                 4  0704  B Z77               61
540  5 10  *
541  5 11  * ORIGIN ASTERISK
542  5 12  *
543  5 13  ASTRSK BCE   PUT,ADDRSW,1                        8  0708  B Z77 Y59 1         62
544  5 14          BCE   SETSWS,LITRSW,1                    8  0716  B 598 Y61 1         62
545  5 15          MCW   NOWCTR,ORGCTR                       7  0724  M Y48 Y53           62
546  5 16          B     RSTSWA                              4  0731  B 616               62
547  5 17  *
548  5 18  * ORIGIN MAXIMUM
549  5 19  *
550  5 20  BLKAOP BCE   SETSWS,MAXSW,1                      8  0735  B 598 Y60 1         62
551  5 21          MCW   HGHCTR,ORGCTR                       7  0743  M Y58 Y53           63
552  5 22          A     @1@,ORGCTR                          7  0750  A Y93 Y53           63
553  5 23          B     RSTSWA                              4  0757  B 616               63
554  5 24  *
555  5 25  * ORIGIN ACTUAL OR PROCESSED
556  5 26  *
557  5 27  ACTUAL ZA     ORGADD,NOWCTR                       7  0761  ? 032 Y48           63
558  5 28          S     @1@,NOWCTR                          7  0768  S Y93 Y48           63
559  5 29          BCE   TSTXOO,AOPHO,*                     8  0775  B 821 017 *         64
560  5 30          MCW   @0@,LITRSW                         7  0783  M Y92 Y61           64
561  5 31          BWZ   SCNTB,AOPHO,2                     8  0790  V 806 017 2         64
562  5 32          BWZ   SETORG,STAOP,K                    8  0798  V 609 001 K         64
563  5 33  SCNTB  MCW   @0@,ADDRSW                         7  0806  M Y92 Y59           64
564  5 34          S     ORGCTR                              4  0813  S Y53               65
565  5 35          B     PUT                                 4  0817  B Z77               65
566  5 36  TSTXOO BCE   PUT,AOPADJ-002,X                    8  0821  B Z77 024 X         65
567  5 37          BWZ   PUT,CARD&034,B                     8  0829  V Z77 034 B         65
568  5 38          A     ORGCTR,ORGADD                       7  0837  A Y53 032           65
569  5 39          BCE   PUT,ADDRSW,1                       8  0844  B Z77 Y59 1         65
570  5 40          BCE   PUT,LITRSW,1                       8  0852  B Z77 Y61 1         66
571  5 41          MZ    ABBIT,CARD&034                      7  0860  Y 113 034           66
572  5 42          B     ACTUAL                              4  0867  B 761               66
573  5 43  *
574  5 44  * PROCESS DA STATEMENTS
575  5 45  *
576  5 46  DA     BCE   ORIGDA,TYPE,0                       8  0871  B 926 075 0         66
577  5 47          BCE   TSTRPT,ACTSW,1                     8  0879  B 910 Y67 1         66
578  5 48  BTOADD C     LABADD,SUPADD                       7  0887  C 061 066           67
579  5 49          BL    *&8                                 5  0894  B 906 T             67
580  5 50          MCW   @0005@,XR3                        7  0899  M Y96 099           67
581  5 51          B     PRCADD                              4  0906  B |03               67
582  5 52  TSTRPT BCE   PUT,TYPE,|                         8  0910  B Z77 075 |         67
583  5 53          B     PROCLB                              4  0918  B /09               67
584  5 54          B     PUT                                 4  0922  B Z77               67
585  5 55  *
586  5 56  * DA HEADER
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
587  5 57   *
588  5 58   ORIGDA MCW   @0@,INDFTR                          7  0926  M Y92 Y69           68
589  5 59          A     AINDEX,INDFTR                       7  0933  A 027 Y69           68
590  5 60          MCW   @1@,DASW                            7  0940  M Y93 Y68           68
591  5 61          MCW   @0@,ACTSW                           7  0947  M Y92 Y67           68
592  5 62          BCE   BTOADD,AOPHO,*                      8  0954  B 887 017 *         68
593  5 63          MCW   @1@,ACTSW                           7  0962  M Y93 Y67           69
594  5 64          B     TSTRPT                              4  0969  B 910               69
595  5 65   *
596  5 66   * PROCESS EX & END
597  5 67   *
598  5 68   EXEND  BWZ   PUT,TYPE,B                         8  0973  V Z77 075 B         69
599  5 69          MCW   @B@,BRANCH                          7  0981  M Z04 X84           69
600  5 70          B     WRITE                               4  0988  B X67               69
601  5 71   *
602  5 72   * PROCESS SUFFIX
603  5 73   *
604  5 74   SFX    MCW   AOPHO,SFXCTR                        7  0992  M 017 L23           69
605  5 75          B     PUT                                 4  0999  B Z77               70
606  5 76   *
607  5 77   * PROCESS ADDRESSES
608  5 78   *
609  5 79   PRCADD SBR   ADDRTN&003                          4  1003  H |89               70
610  5 80          MCW   @0@,ACTSW                           7  1007  M Y92 Y67           70
611  5 81          BWZ   LITTST,STLABL,K                     8  1014  V |90 002 K         70
612  5 82   TSTADD BWZ   ADDRTN,STADDR,B                     8  1022  V |86 003 B         70
613  5 83          BCE   ADDRTN,ADDRSW,1                     8  1030  B |86 Y59 1         70
614  5 84          A     ORGCTR,LABADD                       7  1038  A Y53 061           71
615  5 85          A     ORGCTR,SUPADD                       7  1045  A Y53 066           71
616  5 86          C     NOWCTR,LABADD&X3                    7  1052  C Y48 0F1           71
617  5 87          BL    *&008                               5  1059  B |71 T             71
618  5 88          ZA    LABADD&X3,NOWCTR                    7  1064  ? 0F1 Y48           71
619  5 89          BCE   ADDRTN,LITRSW,1                     8  1071  B |86 Y61 1         72
620  5 90          MZ    ABBIT,STADDR                        7  1079  Y 113 003           72
621  5 91   ADDRTN B     XXXX                                4  1086  B 000               72
622  5 92   LITTST MCW   DSAPUT,LABRTN&003                   7  1090  M Y72 S97           72
623  5 93          BCE   LITRAL,TYPE,/                       8  1097  B T25 075 /         72
624  5 94          B     TSTADD                              4  1105  B |22               72
625  5 95   *
626  5 96   * PROCESS LABEL
627  5 97   *
628  5 98   PROCLB SBR   LABRTN&003                          4  1109  H S97               73
629  5 99          BWZ   *&005,STLABL,2                      8  1113  V /25 002 2         73
630  6 00          B     LABRTN                              4  1121  B S94               73
631  6 01          BCE   MRKPRC,LBLHO,                       8  1125  B S80 008           73
632  6 02          BCE   BTOLBL,ACTSW,1                      8  1133  B /57 Y67 1         73
633  6 03          BCE   TSTDBL,LITRSW,1                     8  1141  B S07 Y61 1         74
634  6 04          BCE   TSTDBL,ADDRSW,1                     8  1149  B S07 Y59 1         74
635  6 05   BTOLBL B     DOLABL                              4  1157  B T58               74
636  6 06          B     SEARCH                              4  1161  B W29               74
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
637  6 07          BCE   DBLDEF,DBLSW,1                      8  1165  B S98 Y64 1          74
638  6 08          BCE   STORE,SPCSW,0                       8  1173  B S69 Y63 0          75
639  6 09   *
640  6 10   * UNPROCESSED LABEL
641  6 11   *
642  6 12   UNPROC MCW   @1@,UNPRSW                         7  1181  M Y93 L94            75
643  6 13          A     @1@,TOTLAB                         7  1188  A Y93 L93            75
644  6 14          BCE   SETSWL,TYPE,/                      8  1195  B S50 075 /          75
645  6 15          B     LABRTN                             4  1203  B S94                75
646  6 16   *
647  6 17   * SEARCH TABLE FOR DBL DEF LITERAL
648  6 18   *
649  6 19   TSTDBL BCE   UNPROC,LBLHO,$                     8  1207  B /81 008 $          76
650  6 20          B     DOLABL                             4  1215  B T58                76
651  6 21          B     SEARCH                             4  1219  B W29                76
652  6 22          BCE   UNPROC,DBLSW,0                     8  1223  B /81 Y64 0          76
653  6 23          BCE   UNPROC,ADDHO,                      8  1231  B /81 M!0            76
654  6 24          MZ    BBIT,STLABL                        7  1239  Y 112 002            76
655  6 25          B     LABRTN                             4  1246  B S94                77
656  6 26   *
657  6 27   * UNPROCESSED LABEL OF LITERAL
658  6 28   *
659  6 29   SETSWL BCE   LABRTN,LBLHO,$                     8  1250  B S94 008 $          77
660  6 30          MCW   @11@,LITRSW                        7  1258  M Z01 Y61            77
661  6 31          B     LABRTN                             4  1265  B S94                77
662  6 32   *
663  6 33   * STORE LABEL IN TABLE
664  6 34   *
665  6 35   STORE  LCA   FNCTN,SYMBOL                       7  1269  L L08 M!9            77
666  6 36          LCA   HOLDAD                             4  1276  L Z12                77
667  6 37   MRKPRC MZ    ABBIT,STLABL                       7  1280  Y 113 002            78
668  6 38          MCW   @1@,PROCSW                         7  1287  M Y93 L95            78
669  6 39   LABRTN B     XXXX                               4  1294  B 000                78
670  6 40   *
671  6 41   * DOUBLY DEFINED LABEL
672  6 42   *
673  6 43   DBLDEF BCE   STORE,ADDHO,                       8  1298  B S69 M!0            78
674  6 44          MZ    BBIT,STLABL                        7  1306  Y 112 002            78
675  6 45          BCE   LITRAL,TYPE,/                      8  1313  B T25 075 /          79
676  6 46          B     LABRTN                             4  1321  B S94                79
677  6 47   *
678  6 48   * DOUBLY DEFINED LITERAL
679  6 49   *
680  6 50   LITRAL BWZ   LABRTN,STBOP,B                     8  1325  V S94 004 B          79
681  6 51          MCW   @%@,TYPE                           7  1333  M Z05 075            79
682  6 52          S     COUNT,ORGCTR                       7  1340  S 007 Y53            79
683  6 53          S     COUNT,NOWCTR                       7  1347  S 007 Y48            80
684  6 54          B     LABRTN                             4  1354  B S94                80
685  6 55   *
686  6 56   * SET UP LABEL & ADDRESS
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
687  6 57   * FOR TABLE SEARCH
688  6 58   *
689  6 59   DOLABL SBR   DOLABR&003                                4  1358  H U34             80
690  6 60          MCW   LABEL,FNCTN                               7  1362  M 013 L08         80
691  6 61          MCW   CNVLAB,ARGUMT#003                         7  1369  M 056 Z08         80
692  6 62   SETFUN BCE   *&005,FNCTN,                             8  1376  B T88 L08         80
693  6 63          B     *&008                                     4  1384  B T95             81
694  6 64          MCW   SFXCTR,FNCTN                            7  1388  M L23 L08         81
695  6 65          MCW   LABADD&X1,HOLDAD#004                    7  1395  M 0W1 Z12         81
696  6 66          BCE   DOINDX,HOADD&X1,0                       8  1402  B U17 0V7 0       81
697  6 67          MZ    ABIT,HOLDAD-003                         7  1410  Y 111 Z09         81
698  6 68   DOINDX MN    INDFTR,*&004                            7  1417  D Y69 U27         82
699  6 69          MZ    ZONE,HOLDAD-001                         7  1424  Y 113 Z11         82
700  6 70   DOLABR B     XXXX                                    4  1431  B 000             82
701  6 71   *
702  6 72   * PROCESS A OPERAND OF ORIGIN & EQUATE
703  6 73   *
704  6 74   SETAOP SBR   AOPRTN&003                              4  1435  H U87             82
705  6 75          MCW   &BRSRH,DOLABR&003                       7  1439  M Z15 U34         82
706  6 76          MCW   AOPER,FNCTN                            7  1446  M 022 L08         82
707  6 77          MCW   AOP,ARGUMT                             7  1453  M 070 Z08         83
708  6 78          B     SETFUN                                  4  1460  B T76             83
709  6 79   BRSRH  B     SEARCH                                  4  1464  B W29             83
710  6 80          BCE   ADDBNK,DBLSW,1                          8  1468  B V03 Y64 1       83
711  6 81          BCE   STRBNK,SPCSW,0                          8  1476  B U88 Y63 0       83
712  6 82   AOPRTN B     XXXX                                    4  1484  B 000             83
713  6 83   *
714  6 84   * LABEL NOT IN TABLE, STORE
715  6 85   * WITH BLANK ADDRESS
716  6 86   *
717  6 87   STRBNK LCA   FNCTN,SYMBOL                            7  1488  L L08 M!9         84
718  6 88          LCA   @    @                                   4  1495  L Z19             84
719  6 89          B     AOPRTN                                  4  1499  B U84             84
720  6 90   *
721  6 91   * RETRIEVE VALUE FROM TABLE
722  6 92   *
723  6 93   ADDBNK BCE   AOPRTN,ADDHO,                           8  1503  B U84 M!0         84
724  6 94          MCW   @1@,ORGSW                              7  1511  M Y93 Y66         84
725  6 95          BWZ   *&5,LBLREF,2                           8  1518  V V30 M!1 2       84
726  6 96          B     *&8                                     4  1526  B V37             85
727  6 97          MZ    ABIT,LBLREF                             7  1530  Y 111 M!1         85
728  6 98          MCW   ADDLO,LABADD                           7  1537  M M!3 061         85
729  6 99          BCE   AOPROC,LABADD-3,%                      8  1544  B W18 058 %       85
730  7 00          BWZ   *&008,LABADD-003,2                     8  1552  V V67 058 2       85
731  7 01          MCW   @1@,HOADD                              7  1560  M Y93 057         86
732  7 02          BCE   AOPRTN,TYPE,O                          8  1567  B U84 075 O       86
733  7 03   *
734  7 04   * ADD CHARACTER ADJUSTMENT FOR EQUATE
735  7 05   *
736  7 06          MZ    LABADD-001,SAVEZN#001                   7  1575  Y 060 Z20         86
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
737   7 07           A     AOPADJ,LABADD                       7  1582  A 026 061           86
738   7 08           MZ    SAVEZN,LABADD-001                   7  1589  Y Z20 060           86
739   7 09           BCE   AOPROC,AINDEX,                      8  1596  B W18 027           87
740   7 10           MN    INDFTR,*&004                        7  1604  D Y69 W14           87
741   7 11           MZ    ZONE,LABADD-001                     7  1611  Y 113 060           87
742   7 12   AOPROC  MZ    ABBIT,STAOP                         7  1618  Y 113 001           87
743   7 13           B     AOPRTN                              4  1625  B U84               87
744   7 14   *
745   7 15   * TABLE SEARCH
746   7 16   *
747   7 17   SEARCH  SBR   RETURN&003                          4  1629  H X66               87
748   7 18           MCW   DBLSW&001,DBLSW                     7  1633  M Y65 Y64           88
749   7 19           MCW   TABMAX,MAXADD                       7  1640  M L11 L14           88
750   7 20           MCW   ARGUMT,XR2                          7  1647  M Z08 094           88
751   7 21           MCW   SERCHS,MAXSER                       7  1654  M L99 L22           88
752   7 22   TBLSRH  C     FNCTN,SYMBOL                        7  1661  C L08 M!9           88
753   7 23           BE    SETDBL                              5  1668  B X45 S             89
754   7 24           BCE   RETURN,SYMHO,                      8  1673  B X63 M!4           89
755   7 25   BUMP    A     @010@,XR2                          7  1681  A Z23 094           89
756   7 26           S     @1@,MAXSER                         7  1688  S Y93 L22           89
757   7 27           BM    SETSPC,MAXSER                      8  1695  V X56 L22 K         89
758   7 28           C     XR2,MAXADD                         7  1703  C 094 L14           90
759   7 29           BU    TBLSRH                             5  1710  B W61 /             90
760   7 30           BCE   SETSPC,WRAPSW,1                   8  1715  B X56 Y62 1         90
761   7 31           MCW   @1@,WRAPSW                        7  1723  M Y93 Y62           90
762   7 32           MCW   ARGUMT,MAXADD                      7  1730  M Z08 L14           90
763   7 33           S     XR2&001                            4  1737  S 095               90
764   7 34           B     TBLSRH                             4  1741  B W61               91
765   7 35   *
766   7 36   * LABEL IN TABLE
767   7 37   *
768   7 38   SETDBL  MCW   @1@,DBLSW                          7  1745  M Y93 Y64           91
769   7 39           B     RETURN                             4  1752  B X63               91
770   7 40   *
771   7 41   * SPACE AVAILABLE
772   7 42   *
773   7 43   SETSPC  MCW   @1@,SPCSW                          7  1756  M Y93 Y63           91
774   7 44   RETURN  B     XXXX                               4  1763  B 000               91
775   7 45   *
776   7 46   * INPUT/OUTPUT - PASS C
777   7 47   *
778   7 48   WRITE   WT    COUTPT,TPAREA                      8  1767  M %U6 I18 W         91
779   7 49           NOP   XXXX                               4  1775  N 000               91
780   7 50           BER   TPERR                              5  1779  B !04 L             92
781   7 51   BRANCH  NOP   FINAL                              4  1784  N Y73               92
782   7 52   READ    S     HOLDA                              4  1788  S L31               92
783   7 53           RT    CINPUT,TPAREA                      8  1792  M %U5 I18 R         92
784   7 54           B     CHKLGT                             4  1800  B K08               92
785   7 55           BER   TPERR                              5  1804  B !04 L             92
786   7 56           B     NXTREC                             4  1809  B Z37               92
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

787  7 57   *
788  7 58   * CLEAR TABLE AREA
789  7 59   *
790  7 60   CLRTAB MCW   CLRMAX,CLEAR&003                           7  1813  M K99 Y23           93
791  7 61   CLEAR  CS    XXXX                                      4  1820  / 000               93
792  7 62          SBR   CLEAR&003                                 4  1824  H Y23               93
793  7 63          C     CLEAR&003,CLRMIN                          7  1828  C Y23 L02           93
794  7 64          BU    CLEAR                                     5  1835  B Y20 /             93
795  7 65          B     READ                                      4  1840  B X88               93
796  7 66   NOWCTR DCW   &00000                                    5  1848                      93
797  7 67   ORGCTR DCW   &00000                                    5  1853                      94
798  7 68   HGHCTR DCW   &00000                                    5  1858                      94
799  7 69   ADDRSW DCW   @0@                                       1  1859                      94
800  7 70   MAXSW  DC    @0@                                       1  1860                      94
801  7 71   LITRSW DC    @0@                                       1  1861                      94
802  7 72   WRAPSW DCW   @0@                                       1  1862                      94
803  7 73   SPCSW  DC    @0@                                       1  1863                      94
804  7 74   DBLSW  DC    @0@                                       1  1864                      94
805  7 75          DC    @0@                                       1  1865                      94
806  7 76   ORGSW  DCW   @0@                                       1  1866                      94
807  7 77   ACTSW  DCW   @0@                                       1  1867                      94
808  7 78   DASW   DCW   @0@                                       1  1868                      94
809  7 79   INDFTR DCW   @0@                                       1  1869                      95
810  7 80   DSAPUT DSA   PUT                                       3  1872  Z77                 95
811  7 81   *
812  7 82   * END OF PASS C, GET PASS D
813  7 83   *
814  7 84   FINAL  WTM   COUTPT                                    5  1873  U %U6 M             95
815  7 85          RWD   CINPUT                                    5  1878  U %U5 R             95
816  7 86          RWD   COUTPT                                    5  1883  U %U6 R             95
817  7 87          B     RDPSSD                                    4  1888  B K47               95
818  7 88          LTORG *                                                  1892
                   DCW   @0@                                      1  1892              LIT     95
                         @1@                                      1  1893              LIT     96
                         @0005@                                   3  1896              LIT     96
       490               &AOPOR                                   3  1899  536         ADCON   96
                         @11@                                     2  1901              LIT     96
                         &00                                      2  1903              LIT     96
                         @B@                                      1  1904              LIT     96
                         @%@                                      1  1905              LIT     96
       691  ARGUMT       #03                                      3  1908              AREA    97
       695  HOLDAD       #04                                      4  1912              AREA    97
       705               &BRSRH                                   3  1915  U64         ADCON   97
                         @    @                                   4  1919              LIT     97
       736  SAVEZN       #01                                      1  1920              AREA    97
                         @010@                                    3  1923              LIT     97
819  7 89   ENDOFC DCW   @}@                                       1  1924                      97
820  7 90          XFR   LIBRN                                          B 000               98
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
821  7 91           JOB   1401 AUTOCODER-PASS 6-PROCESS OPERANDS -VERSION 3
822  7 92    *
823  7 93    91     DCW   @000000@                                          5  0091                    101
824  7 94    96     DCW   @000000@                                          5  0096                    101
825  7 95    101    DCW   @000000@                                          5  0101                    101
826  7 96    109    DCW   @2SKB@                                            4  0109                    102
827  7 97    113    DCW   @2SKB@                                            4  0113                    102
828  7 98           ORG   ZONE&001                                                 0114
829  7 99    *
830  8 00    * DETERMINE RECORD TYPE
831  8 01    *
832  8 02           MCW   @0@,ASTRSW                                        7  0114  M U32 U18         102
833  8 03           BM    PUT,CARD&005                                      8  0121  V Z77 005 K       102
834  8 04           BCE   PUT,TYPE,%                                        8  0129  B Z77 075 %       102
835  8 05           MN    TYPE,TYPEA#001                                    7  0137  D 075 U33         102
836  8 06           BCE   PRINST,TYPEA,                                    8  0144  B 196 U33         103
837  8 07           BCE   PRDSA,TYPEA,2                                    8  0152  B 318 U33 2       103
838  8 08           BCE   PROEND,TYPEA,3                                   8  0160  B 446 U33 3       103
839  8 09           BCE   PROSFX,TYPEA,4                                   8  0168  B S79 U33 4       103
840  8 10           BCE   ORGEQU,TYPEA,6                                   8  0176  B 489 U33 6       104
841  8 11           BCE   ORGEQU,TYPEA,7                                   8  0184  B 489 U33 7       104
842  8 12           B     PUT                                               4  0192  B Z77             104
843  8 13    *
844  8 14    * PROCESS INSTRUCTIONS
845  8 15    *
846  8 16    PRINST BWZ   SETAST,STADDR,2                                   8  0196  V 208 003 2       104
847  8 17           B     LOADDR                                            4  0204  B 215             104
848  8 18    SETAST MCW   @1@,ASTRSW                                        7  0208  M U34 U18         104
849  8 19    *
850  8 20    * SET ASTERISK ADDRESS
851  8 21    *
852  8 22    LOADDR ZA    LABADD,ASTADD#005                                 7  0215  ? 061 U39         105
853  8 23           A     COUNT,ASTADD                                      7  0222  A 007 U39         105
854  8 24           S     @1@,ASTADD                                        7  0229  S U34 U39         105
855  8 25    *
856  8 26    * TEST FOR A OPERAND
857  8 27    *
858  8 28           BCE   PUT,COUNT,1                                       8  0236  B Z77 007 1       105
859  8 29           BCE   PUT,COUNT,2                                       8  0244  B Z77 007 2       105
860  8 30           BWZ   *&005,STAOP,2                                     8  0252  V 264 001 2       106
861  8 31           B     SEEBOP                                            4  0260  B 268             106
862  8 32           B     PROCOP                                            4  0264  B 578             106
863  8 33    *
864  8 34    * TEST FOR B OPERAND
865  8 35    *
866  8 36    SEEBOP BCE   PUT,COUNT,4                                       8  0268  B Z77 007 4       106
867  8 37           BCE   PUT,COUNT,5                                       8  0276  B Z77 007 5       106
868  8 38           BWZ   *&005,STBOP,2                                     8  0284  V 296 004 2       107
869  8 39           B     PUT                                               4  0292  B Z77             107
870  8 40           MCW   @003@,XR3                                         7  0296  M U42 099         107
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
871  8 41          MCW   @011@,XR1                                7  0303  M U45 089          107
872  8 42          B     PROCOP                                   4  0310  B 578              107
873  8 43          B     PUT                                      4  0314  B Z77              107
874  8 44   *
875  8 45   * PROCESS DSA AND ADCON
876  8 46   *
877  8 47   PRDSA  BWZ   *&005,STADDR,2                           8  0318  V 330 003 2        108
878  8 48          B     TSTPRC                                   4  0326  B 434              108
879  8 49          MCW   @1@,ASTRSW                               7  0330  M U34 U18          108
880  8 50   SETDSA ZA    LABADD,ASTADD                            7  0337  ? 061 U39          108
881  8 51          MCW   @003@,XR3                                7  0344  M U42 099          108
882  8 52          MCW   @011@,XR1                                7  0351  M U45 089          109
883  8 53          BWZ   *&005,STBOP,2                            8  0358  V 370 004 2        109
884  8 54          B     PUT                                      4  0366  B Z77              109
885  8 55          B     PROCOP                                   4  0370  B 578              109
886  8 56          BWZ   PUT,STBOP,2                              8  0374  V Z77 004 2        109
887  8 57          BCE   CMP16K,AINDEX,-                          8  0382  B 409 027 -        109
888  8 58   COMPRS MCW   &PUT,OPRTN&3                            7  0390  M U48 /78          110
889  8 59          BCE   PUT,AOP&1,%                             8  0397  B Z77 071 %        110
890  8 60          B     CNVTO3                                   4  0405  B |94              110
891  8 61   *
892  8 62   * GET 16000 COMPLEMENT
893  8 63   *
894  8 64   CMP16K MCW   &16000,FNCTN-001                         7  0409  M U53 L07          110
895  8 65          S     HOLDAR,FNCTN-001                         7  0416  S U58 L07          110
896  8 66          ZA    FNCTN-001,HOLDAR#005                     7  0423  ? L07 U58          111
897  8 67          B     COMPRS                                   4  0430  B 390              111
898  8 68   TSTPRC BWZ   SETDSA,STBOP,2                          8  0434  V 337 004 2        111
899  8 69          B     PUT                                      4  0442  B Z77              111
900  8 70   *
901  8 71   * PROCESS EX & END
902  8 72   *
903  8 73   PROEND S     ASTADD                                   4  0446  S U39              111
904  8 74          BWZ   *&005,STAOP,2                            8  0450  V 462 001 2        111
905  8 75          B     *&005                                    4  0458  B 466              111
906  8 76          B     PROCOP                                   4  0462  B 578              112
907  8 77          BCE   ENDOPN,TYPE,3                            8  0466  B 478 075 3        112
908  8 78          B     PUT                                      4  0474  B Z77              112
909  8 79   ENDOPN MCW   @B@,BRNCH2                              7  0478  M U59 X84          112
910  8 80          B     PUT                                      4  0485  B Z77              112
911  8 81   *
912  8 82   * PROCESS ORIGIN & EQUATE
913  8 83   *
914  8 84   ORGEQU BWZ   *&005,STAOP,2                           8  0489  V 501 001 2        112
915  8 85          B     ORGOUT                                   4  0497  B 574              112
916  8 86          BCE   ORGOUT,AOPHO,                            8  0501  B 574 017          113
917  8 87          BWZ   ORGOUT,AOPHO,2                           8  0509  V 574 017 2        113
918  8 88          BCE   ORGOUT,AOPHO,*                          8  0517  B 574 017 *        113
919  8 89          BCE   ORGOUT,AOPHO,%                          8  0525  B 574 017 %        113
920  8 90          B     PROCOP                                   4  0533  B 578              113
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
921  8 91           BWZ   ORGOUT,STAOP,2                     8  0537  V 574 001 2        114
922  8 92           MCW   @0@,ITERSW                         7  0545  M U32 U28          114
923  8 93           BCE   *&008,TYPEA,7                      8  0552  B 567 U33 7        114
924  8 94           MZ    BBIT,STAOP                         7  0560  Y 112 001          114
925  8 95           MCW   HOLDAR,LABADD                      7  0567  M U58 061          114
926  8 96  ORGOUT B     PUT                                  4  0574  B Z77              115
927  8 97  *
928  8 98  * PROCESS OPERAND SUB-ROUTINE
929  8 99  *
930  9 00  PROCOP SBR   OPRTN&003                            4  0578  H /78              115
931  9 01           BWZ   *&005,STAOP&X3,2                   8  0582  V 594 0?1 2        115
932  9 02           B     OPRTN                              4  0590  B /75              115
933  9 03           BCE   SETZRO,AOPHO&X1,                   8  0594  B 942 0/7          115
934  9 04           BCE   PERCNT,AOPHO&X1,%                  8  0602  B 950 0/7 %        115
935  9 05           BWZ   FLOAT,AOPHO&X1,2                   8  0610  V S21 0/7 2        116
936  9 06           BCE   PROAST,AOPHO&X1,*                  8  0618  B /90 0/7 *        116
937  9 07  *
938  9 08  * CONVERT SYMBOL TO TABLE ADDRESS
939  9 09  *
940  9 10  CNVSYM BCE   *&005,AOP-002&X3,                    8  0626  B 638 0F8          116
941  9 11           B     SETSYM                             4  0634  B 804              116
942  9 12           MCW   AOPER&X1,W6AREA#006                7  0638  M 0S2 U65          116
943  9 13           BCE   *&5,W6AREA,                        8  0645  B 657 U65          117
944  9 14           B     *&8                                4  0653  B 664              117
945  9 15           MCW   SFXCTR,W6AREA                      7  0657  M L23 U65          117
946  9 16           ZA    &2,HOLD2#002                       7  0664  ? U66 U68          117
947  9 17           ZA    W6AREA-002,HOLD4#004               7  0671  ? U63 U72          117
948  9 18           A     W6AREA,HOLD4                       7  0678  A U65 U72          118
949  9 19           A     W6AREA,HOLD4-002                   7  0685  A U65 U70          118
950  9 20           MZ    NOBIT,HOLD4                        7  0692  Y 110 U72          118
951  9 21           ZA    FACTOR,HOLD7                       7  0699  ? L88 U26          118
952  9 22  MPYLP  MN    HOLD7,HOLD1                        7  0706  D U26 U27          118
953  9 23           ZA                                       1  0713  ?                  118
954  9 24  MULT   BCE   NXTDGT,HOLD1,?                      8  0714  B 740 U27 ?        119
955  9 25           A     HOLD4,HOLD7-002                    7  0722  A U72 U24          119
956  9 26           S     &1,HOLD1                           7  0729  S U73 U27          119
957  9 27           B     MULT                               4  0736  B 714              119
958  9 28  NXTDGT S     &1,HOLD2                           7  0740  S U73 U68          119
959  9 29           BWZ   MPYLP,HOLD2,B                     8  0747  V 706 U68 B        120
960  9 30           MCW   @000@,AOP&X3                      7  0755  M U76 0G0          120
961  9 31           BAV   *&001                              5  0762  B 767 Z            120
962  9 32  LOOP1  A     &96,HOLD7-005                      7  0767  A U78 U21          120
963  9 33           BAV   LOOP1                             5  0774  B 767 Z            120
964  9 34           MZ    HOLD7-006,AOP&X3                   7  0779  Y U20 0G0          120
965  9 35           MCW   HOLD7-003                          4  0786  M U23              121
966  9 36           MN    HOLD7-005,*&004                    7  0790  D U21 800          121
967  9 37           MZ    ZONE2,AOP-002&X3                   7  0797  Y 109 0F8          121
968  9 38  *
969  9 39  * SYMBOLIC OPERAND
970  9 40  *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
 971  9 41   SETSYM MCW   AOPER&X1,FNCTN                            7  0804  M 0S2 L08          121
 972  9 42          BCE   *&005,FNCTN,                             8  0811  B 823 L08          121
 973  9 43          B     *&008                                     4  0819  B 830              121
 974  9 44          MCW   SFXCTR,FNCTN                            7  0823  M L23 L08          122
 975  9 45          MCW   TABMAX,MAXADD                           7  0830  M L11 L14          122
 976  9 46          MCW   @0@,SWICH1                              7  0837  M U32 U19          122
 977  9 47          MCW   AOP&X3,XR2                              7  0844  M 0G0 094          122
 978  9 48          MCW   SERCHS,MAXSER                           7  0851  M L99 L22          122
 979  9 49   *
 980  9 50   * TABLE SEARCH
 981  9 51   *
 982  9 52   SRHLOP C     FNCTN,SYMBOL                            7  0858  C L08 M!9          123
 983  9 53          BE    RECALL                                  5  0865  B 980 S            123
 984  9 54          BCE   UNDEF,SYMHO,                            8  0870  B 961 M!4          123
 985  9 55   BUMPER A     @010@,XR2                               7  0878  A U81 094          123
 986  9 56          S     @1@,MAXSER                              7  0885  S U34 L22          123
 987  9 57          BM    UNDEF,MAXSER                            8  0892  V 961 L22 K        124
 988  9 58          C     XR2,MAXADD                              7  0900  C 094 L14          124
 989  9 59          BU    SRHLOP                                  5  0907  B 858 /            124
 990  9 60          BCE   UNDEF,SWICH1,1                          8  0912  B 961 U19 1        124
 991  9 61          MCW   @1@,SWICH1                              7  0920  M U34 U19          124
 992  9 62          MCW   AOP&X3,MAXADD                          7  0927  M 0G0 L14          125
 993  9 63          S     XR2&001                                 4  0934  S 095              125
 994  9 64          B     SRHLOP                                  4  0938  B 858              125
 995  9 65   *
 996  9 66   * BLANK OPERAND
 997  9 67   *
 998  9 68   SETZRO S     HOLDAR                                  4  0942  S U58              125
 999  9 69          B     CHRADJ                                  4  0946  B |49              125
1000  9 70   *
1001  9 71   * PERCENT OPERAND
1002  9 72   *
1003  9 73   PERCNT MCW   AOPER-003&X1,AOP&X3                     7  0950  M 0/9 0G0          125
1004  9 74          B     MARK                                    4  0957  B /68              125
1005  9 75   *
1006  9 76   * UNDEFINED OPERAND
1007  9 77   *
1008  9 78   UNDEF  BCE   OPRTN,ITERSW,0                          8  0961  B /75 U28 0        126
1009  9 79          MCW   @###@,AOP&X3                            7  0969  M U84 0G0          126
1010  9 80          B     OPRTN                                   4  0976  B /75              126
1011  9 81   *
1012  9 82   * RETRIEVE VALUE FROM TABLE
1013  9 83   *
1014  9 84   RECALL BCE   UNDEF,ADDHO,                            8  0980  B 961 M!0          126
1015  9 85          BWZ   *&5,LBLREF,2                            8  0988  V |00 M!1 2       126
1016  9 86          B     *&8                                     4  0996  B |07              126
1017  9 87          MZ    ABIT,LBLREF                             7  1000  Y 111 M!1          127
1018  9 88          MCW   ADDLO,HOLDAR                            7  1007  M M!3 U58          127
1019  9 89          MCW   @0@                                     4  1014  M U32              127
1020  9 90          BCE   IOADD,HOLDAR-003,%                      8  1018  B /79 U55 %        127
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1021  9 91          BWZ   *&008,HOLDAR-003,2                          8  1026  V |41 U55 2        127
1022  9 92          MCW   @1@,HOLDAR-004                              7  1034  M U34 U54          128
1023  9 93          BCE   TSTCNV,TYPEA,6                             8  1041  B |78 U33 6        128
1024  9 94    *
1025  9 95    * ADD CHARACTER ADJUSTMENT
1026  9 96    *
1027  9 97    CHRADJ MZ     HOLDAR-001,HOLDZN#001                     7  1049  Y U57 U85          128
1028  9 98          BCE   TSTCNV,AOPADJ-002&X1,X                     8  1056  B |78 0S4 X        128
1029  9 99          A     AOPADJ&X1,HOLDAR                          7  1064  A 0S6 U58          128
1030 10 00          MZ    HOLDZN,HOLDAR-001                         7  1071  Y U85 U57          129
1031 10 01    TSTCNV BM     MARK,TYPE                                 8  1078  V /68 075 K        129
1032 10 02          BCE   MARK,TYPEA,2                              8  1086  B /68 U33 2        129
1033 10 03    *
1034 10 04    * CONVERT FIVE DIGIT ADDRESS TO THREE DIGIT ADDR
1035 10 05    *
1036 10 06    CNVTO3 BAV    *&001                                     5  1094  B |99 Z            129
1037 10 07          A     @96@,HOLDAR-003                           7  1099  A U87 U55          129
1038 10 08          BAV   CNVTO3&005                                5  1106  B |99 Z            130
1039 10 09          MZ    HOLDAR-004,HOLDAR                         7  1111  Y U54 U58          130
1040 10 10          MN    HOLDAR-003,*&004                          7  1118  D U55 /28          130
1041 10 11          MZ    ZONE2,HOLDAR-002                          7  1125  Y 109 U56          130
1042 10 12          MZ    HOLDZN,HOLDAR-001                         7  1132  Y U85 U57          130
1043 10 13          BCE   STRADD,AINDEX&X1,                         8  1139  B /61 0S7          131
1044 10 14          MN    AINDEX&X1,*&004                           7  1147  D 0S7 /57          131
1045 10 15          MZ    ZONE,HOLDAR-001                           7  1154  Y 113 U57          131
1046 10 16    STRADD MCW    HOLDAR,AOP&X3                             7  1161  M U58 0G0          131
1047 10 17    *
1048 10 18    * MARK OPERAND PROCESSED
1049 10 19    *
1050 10 20    MARK   MZ     ABBIT,STAOP&X3                            7  1168  Y 113 0?1          131
1051 10 21    OPRTN  B      XXXX                                      4  1175  B 000              132
1052 10 22    *
1053 10 23    * I/O ADDRESS IN TABLE
1054 10 24    *
1055 10 25    IOADD  MCW    HOLDAR-001,AOP&X3                         7  1179  M U57 0G0          132
1056 10 26          B     MARK                                      4  1186  B /68              132
1057 10 27    *
1058 10 28    * ASTERISK OPERAND
1059 10 29    *
1060 10 30    PROAST BCE    *&5,AOPER&X1,                             8  1190  B S02 0S2          132
1061 10 31          B     CNVSYM                                    4  1198  B 626              132
1062 10 32          BCE   OPRTN,ASTRSW,1                            8  1202  B /75 U18 1        132
1063 10 33          MCW   ASTADD,HOLDAR                            7  1210  M U39 U58          133
1064 10 34          B     CHRADJ                                    4  1217  B |49              133
1065 10 35    *
1066 10 36    * ACTUAL OPERAND - FLOAT TO 5 DIGITS
1067 10 37    *
1068 10 38    FLOAT  BCE    CNVSYM,AOPHO&X1,#                         8  1221  B 626 0/7 #        133
1069 10 39          BCE   CNVSYM,AOPHO&X1,@                         8  1229  B 626 0/7 @        133
1070 10 40          BWZ   *&005,AOPER-004&X1,2                      8  1237  V S49 0/8 2        133
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

1071 10 41          B     CNVSYM                                    4  1245  B 626              133
1072 10 42          ZA    AOPER-001&X1,HOLDAR                       7  1249  ? 0S1 U58          134
1073 10 43   REFLOT BCE   *&005,HOLDAR,&                           8  1256  B S68 U58 &        134
1074 10 44          B     CHRADJ                                    4  1264  B |49              134
1075 10 45          ZA    HOLDAR-001,HOLDAR                         7  1268  ? U57 U58          134
1076 10 46          B     REFLOT                                    4  1275  B S56              134
1077 10 47   *
1078 10 48   * PROCESS SUFFIX
1079 10 49   *
1080 10 50   PROSFX MCW   AOPHO,SFXCTR                              7  1279  M 017 L23          134
1081 10 51          B     PUT                                       4  1286  B Z77              135
1082 10 52   *
1083 10 53   * INITIALIZE PASS D
1084 10 54   *
1085 10 55   PASSD  SW    GPMRK2-1                                  4  1290  , U30              135
1086 10 56          RTW   DINPUT,BYPRD                              8  1294  L %U6 U29 R        135
1087 10 57          CW    GPMRK2-1                                  4  1302  ) U30              135
1088 10 58          CS    CARD&080                                  4  1306  / 080              135
1089 10 59          SW    CARD&001,CARD&006                         7  1310  , 001 006          135
1090 10 60          SW    CARD&017,CARD&024                         7  1317  , 017 024          135
1091 10 61          SW    CARD&028,CARD&035                         7  1324  , 028 035          136
1092 10 62          SW    CARD&057,CARD&062                         7  1331  , 057 062          136
1093 10 63          SW    CARD&068,CARD&071                         7  1338  , 068 071          136
1094 10 64          MCW   BUMPOP,BUMPER                           7  1345  M L27 878          136
1095 10 65          MCW   @6@,TPHALT&4                            7  1352  M U88 J15          136
1096 10 66          MCW   @6@,TPHLT2&4                            7  1359  M U88 K01          137
1097 10 67          MCW   @6@,TPHLT3&4                            7  1366  M U88 J42          137
1098 10 68          MCW   TPAD,WRITE2&006                        7  1373  M L34 X73          137
1099 10 69          MCW   TPAD,READ2&010                         7  1380  M L34 X98          137
1100 10 70          MCW   @ @,SFXCTR                             7  1387  M U89 L23          137
1101 10 71   *
1102 10 72   * TEST LAST ITERATION
1103 10 73   *
1104 10 74          BCE   LSTITR,PROCSW,0                         8  1394  B U07 L95 0        138
1105 10 75          BCE                                           1  1402  B                  138
1106 10 76          B     READ2                                   4  1403  B X88              138
1107 10 77   LSTITR MCW   @1@,ITERSW                              7  1407  M U34 U28          138
1108 10 78          B     READ2                                   4  1414  B X88              138
1109 10 79   ASTRSW DCW   0                                       1  1418                     138
1110 10 80   SWICH1 DCW   @0@                                     1  1419                     138
1111 10 81   HOLD7  DCW   @       @                               7  1426                     139
1112 10 82   HOLD1  DCW   &0                                      1  1427                     139
1113 10 83   ITERSW DCW   @0@                                     1  1428                     139
1114 10 84   BYPRD  DCW   @ @                                     1  1429                     139
1115 10 85   GPMRK2 DC    @} @                                    2  1431                     139
1116 10 86   SSOP   EQU   1900                                       1900
1117 10 87          LTORG *                                              1432
                    DCW   @0@                                     1  1432          LIT    139
        835 TYPEA         #01                                     1  1433          AREA   139
                          @1@                                     1  1434          LIT    139
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		852	ASTADD		#05		5	1439		AREA	140
					@003@		3	1442		LIT	140
					@011@		3	1445		LIT	140
		888			&PUT		3	1448	Z77	ADCON	140
					&16000		5	1453		LIT	140
		896	HOLDAR		#05		5	1458		AREA	140
					@B@		1	1459		LIT	140
		942	W6AREA		#06		6	1465		AREA	141
					&2		1	1466		LIT	141
		946	HOLD2		#02		2	1468		AREA	141
		947	HOLD4		#04		4	1472		AREA	141
					&1		1	1473		LIT	141
					@000@		3	1476		LIT	141
					&96		2	1478		LIT	141
					@010@		3	1481		LIT	142
					@###@		3	1484		LIT	142
		1027	HOLDZN		#01		1	1485		AREA	142
					@96@		2	1487		LIT	142
					@6@		1	1488		LIT	142
					@ @		1	1489		LIT	142
1118	10	88	*								
1119	10	89	* INPUT/OUTPUT - PASS D								
1120	10	90	*								
1121	10	91		ORG	WRITE				1767		
1122	10	92	WRITE2	WT	DOUTPT,TPAREA		8	1767	M %U5 I18 W		143
1123	10	93		NOP	XXXX		4	1775	N 000		143
1124	10	94		BER	TPERR		5	1779	B !04 L		143
1125	10	95	BRNCH2	NOP	FINALD		4	1784	N Y13		143
1126	10	96	READ2	S	HOLDA		4	1788	S L31		143
1127	10	97		RT	DINPUT,TPAREA		8	1792	M %U6 I18 R		143
1128	10	98		B	CHKLGT		4	1800	B K08		143
1129	10	99		BER	TPERR		5	1804	B !04 L		144
1130	11	00		B	NXTREC		4	1809	B Z37		144
1131	11	01	*								
1132	11	02	FINALD	WTM	DOUTPT		5	1813	U %U5 M		144
1133	11	03		RWD	DINPUT		5	1818	U %U6 R		144
1134	11	04		RWD	DOUTPT		5	1823	U %U5 R		144
1135	11	05		RTW	SYSTPE,333		8	1828	L %U1 333 R		144
1136	11	06		NOP	XXXX		4	1836	N 000		144
1137	11	07		BER	TPERR		5	1840	B !04 L		145
1138	11	08		CW	ENDOVL		4	1845	) S45		145
1139	11	09		MCW	BUMPOP,TSTLST		7	1849	M L27 474		145
1140	11	10		MCW	BUMPOP,NOT		7	1856	M L27 726		145
1141	11	11		B	TSTREF		4	1863	B 333		145
1142	11	12		DCW	@ @		1	1867			145
1143	11	13	ENDOFD	DCW	@}@		1	1868			145
1144	11	14		EX	LIBRN				B 000		146

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 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

1145 11 15          JOB   1401 AUTOCODER-PASS 6 PRINT SYMBOL TABLE -VERSION 3
1146 11 16   *
1147 11 17          ORG   333                                                      0333
1148 11 18   *
1149 11 19   * END OF PASS D
1150 11 20   *
1151 11 21   * PRINT LIST OF UNREFERENCED LABELS
1152 11 22   *
1153 11 23   TSTREF CS    0332                                              4   0333  / 332              149
1154 11 24          CS                                                      1   0337  /                  149
1155 11 25          S     XR3&1                                             4   0338  S 100              149
1156 11 26          S                                                       1   0342  S                  149
1157 11 27          S                                                       1   0343  S                  149
1158 11 28          SW    HEADSW#001                                        4   0344  , /80              149
1159 11 29   NXTLBL BCE   TSTLST,SYMHO,                                    8   0348  B 474 M!4          149
1160 11 30          BCE   TSTLST,ADDHO,                                     8   0356  B 474 M!0          150
1161 11 31          BCE   LOZNG,SYMHO,)                                     8   0364  B 530 M!4 )        150
1162 11 32          C     SYMHO,@A@                                         7   0372  C M!4 /81          150
1163 11 33          BH    DOREF                                             5   0379  B 441 U            150
1164 11 34          C     SYMHO,@Z@                                         7   0384  C M!4 /82          150
1165 11 35          BL    DOREF                                             5   0391  B 441 T            151
1166 11 36          MN    SYMHO,XR3                                         7   0396  D M!4 099          151
1167 11 37          BWZ   SWTAB,SYMHO,B                                     8   0403  V 433 M!4 B        151
1168 11 38          A     @010@,XR3                                         7   0411  A /85 099          151
1169 11 39          BM    SWTAB,SYMHO                                       8   0418  V 433 M!4 K        151
1170 11 40          A     @010@,XR3                                         7   0426  A /85 099          152
1171 11 41   SWTAB  SW    SORTAB&X3                                         4   0433  , /D8              152
1172 11 42          S     XR3&2                                             4   0437  S 101              152
1173 11 43   DOREF  BWZ   *&5,LBLREF,2                                      8   0441  V 453 M!1 2        152
1174 11 44          B     TSTLST                                            4   0449  B 474              152
1175 11 45          BW    NEWPGE,HEADSW                                     8   0453  V 502 /80 1        152
1176 11 46   DONEXT CW    HEADSW                                            4   0461  ) /80              152
1177 11 47          B     PRINT                                             4   0465  B 538              153
1178 11 48          W                                                       1   0469  2                  153
1179 11 49          CS    216                                               4   0470  / 216              153
1180 11 50   TSTLST A     @010@,XR2                                         7   0474  A /85 094          153
1181 11 51          C     XR2,TABMAX                                        7   0481  C 094 L11          153
1182 11 52          BE    DUMP                                              5   0488  B 646 S            153
1183 11 53          BCV   NEWPGE                                            5   0493  B 502 @            153
1184 11 54          B     NXTLBL                                            4   0498  B 348              154
1185 11 55   NEWPGE CC    1                                                 2   0502  F 1                154
1186 11 56          MCW   @UNREFERENCED LABELS@,219                         7   0504  M S04 219          154
1187 11 57          CC    T                                                 2   0511  F T                154
1188 11 58          W                                                       1   0513  2                  154
1189 11 59          CS    0219                                              4   0514  / 219              154
1190 11 60          BW    DONEXT,HEADSW                                     8   0518  V 461 /80 1        154
1191 11 61          B     NXTLBL                                            4   0526  B 348              155
1192 11 62   LOZNG  SW    LIST-1                                            4   0530  , /78              155
1193 11 63          B     DOREF                                             4   0534  B 441              155
1194 11 64   *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

1195 11 65   * PRINT SUBROUTINE FOR UNREFERENCED LABELS & SYMBOL TABLE
1196 11 66   *
1197 11 67   PRINT  SBR   PRTXT&3                                     4  0538  H 634              155
1198 11 68          MCW   SYMBOL,206&X1                              7  0542  M M!9 2|6          155
1199 11 69          BCE   DOIO,ADDHO,%                              8  0549  B 635 M!0 %        155
1200 11 70          MN    ADDLO,212&X1                               7  0557  D M!3 2/2          155
1201 11 71          MN                                               1  0564  D                  156
1202 11 72          MN                                               1  0565  D                  156
1203 11 73          MN                                               1  0566  D                  156
1204 11 74          BWZ   *&8,ADDHO,2                               8  0567  V 582 M!0 2        156
1205 11 75          MCW   @1@,208&X1                                 7  0575  M S05 2|8          156
1206 11 76          BWZ   PRTXT,ADDLO-1,2                          8  0582  V 631 M!2 2        156
1207 11 77          MN    @1@,215&X1                                 7  0590  D S05 2/5          156
1208 11 78          MCW   @&X@                                      4  0597  M S07              157
1209 11 79          BWZ   PRTXT,ADDLO-1,S                          8  0601  V 631 M!2 S        157
1210 11 80          MN    @2@,215&X1                                 7  0609  D S08 2/5          157
1211 11 81          BWZ   PRTXT,ADDLO-1,K                          8  0616  V 631 M!2 K        157
1212 11 82          MN    @3@,215&X1                                 7  0624  D S09 2/5          157
1213 11 83   PRTXT  B     XXXX                                       4  0631  B 000              157
1214 11 84   DOIO   MCW   ADDLO,212&X1                               7  0635  M M!3 2/2          158
1215 11 85          B     PRTXT                                      4  0642  B 631              158
1216 11 86   *
1217 11 87   * PRINT SYMBOL TABLE
1218 11 88   *
1219 11 89   DUMP   B     NXTPGE                                     4  0646  B 859              158
1220 11 90          S     XR3&1                                      4  0650  S 100              158
1221 11 91          S                                                1  0654  S                  158
1222 11 92          S                                                1  0655  S                  158
1223 11 93   NXTCTR SW    ENDSW#1                                    4  0656  , S10              158
1224 11 94          BW    SCAN,SORTAB&1&X3                           8  0660  V 687 /D9 1        159
1225 11 95   BMPXR3 BCE   TSTEOJ,SORTAB&1&X3,@                       8  0668  B 888 /D9 @        159
1226 11 96          A     &1,XR3                                     7  0676  A S11 099          159
1227 11 97          B     NXTCTR                                     4  0683  B 656              159
1228 11 98   SCAN   BCE   BMPXR3,SORTAB&1&X3,!                       8  0687  B 668 /D9 !        159
1229 11 99          BCE   BMPXR3,SORTAB&1&X3,|                       8  0695  B 668 /D9 |        160
1230 12 00          BCE   BMPXR3,SORTAB&1&X3,/                       8  0703  B 668 /D9 /        160
1231 12 01          MCW   SORTAB&1&X3,TSTLBL&7                       7  0711  M /D9 725          160
1232 12 02   TSTLBL BCE   DOPNT,SYMHO,X                             8  0718  B 777 M!4 X        160
1233 12 03   NOT    A     @010@,XR2                                  7  0726  A /85 094          160
1234 12 04          C     XR2,TABMAX                                 7  0733  C 094 L11          161
1235 12 05          BU    TSTLBL                                     5  0740  B 718 /            161
1236 12 06          S     XR2&1                                      4  0745  S 095              161
1237 12 07          S                                                1  0749  S                  161
1238 12 08          A     &1,XR3                                     7  0750  A S11 099          161
1239 12 09          CW    ENDSW                                      4  0757  ) S10              161
1240 12 10          BW    PNTSYM,PNTSW                               8  0761  V 812 S18 1        161
1241 12 11          SW    PNTSW                                      4  0769  , S18              162
1242 12 12          B     TSTESW                                     4  0773  B 847              162
1243 12 13   DOPNT  BCE   NOT,ADDHO,                                 8  0777  B 726 M!0          162
1244 12 14          B     PRINT                                      4  0785  B 538              162
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1245 12 15          SW    PNTSW                                     4  0789  , S18             162
1246 12 16          A     @016@,XR1                                 7  0793  A S14 089         162
1247 12 17          C     XR1,@128@                                 7  0800  C 089 S17         162
1248 12 18          BU    NOT                                       5  0807  B 726 /           163
1249 12 19   PNTSYM W                                               1  0812  2                 163
1250 12 20          CW    PNTSW#1                                   4  0813  ) S18             163
1251 12 21          CS    332                                       4  0817  / 332             163
1252 12 22          CS                                              1  0821  /                 163
1253 12 23          S     XR1&1                                     4  0822  S 090             163
1254 12 24          BW    *&9,ENDSW                                 8  0826  V 842 S10 1       163
1255 12 25          BCE   TSTEOJ,SORTAB&1&X3,@                      8  0834  B 888 /D9 @       164
1256 12 26          BCV   NXTPGE                                    5  0842  B 859 @           164
1257 12 27   TSTESW BW    NOT,ENDSW                                 8  0847  V 726 S10 1       164
1258 12 28          B     NXTCTR                                    4  0855  B 656             164
1259 12 29   NXTPGE SBR   PGXT&3                                    4  0859  H 887             164
1260 12 30          CS    332                                       4  0863  / 332             164
1261 12 31          CS                                              1  0867  /                 164
1262 12 32          CC    1                                         2  0868  F 1               165
1263 12 33          MCW   @SYMBOL TABLE@,212                        7  0870  M S30 212         165
1264 12 34          W                                               1  0877  2                 165
1265 12 35          CC    K                                         2  0878  F K               165
1266 12 36          CS    212                                       4  0880  / 212             165
1267 12 37   PGXT   B     XXXX                                      4  0884  B 000             165
1268 12 38   TSTEOJ BW    *&3,HEADSW                                8  0888  V 898 /80 1       165
1269 12 39          CC    1                                         2  0896  F 1               166
1270 12 391         CS    332                                       4  0898  / 332             166
1271 12 392         CHAIN 3                                                       MACRO
1272                CS                                              1  0902  /           GEN   166
1273                CS                                              1  0903  /           GEN   166
1274                CS                                              1  0904  /           GEN   166
1275 12 40          BCE   EOJOB,ITERSW,1                           8  0905  B 997 U28 1       166
1276 12 41   *
1277 12 42   * GET PASS C
1278 12 43   *
1279 12 44          BSP   SYSTPE                                    5  0913  U %U1 B           166
1280 12 45          BSP   SYSTPE                                    5  0918  U %U1 B           167
1281 12 46          MCW   @5@,TPHALT&4                             7  0923  M S31 J15         167
1282 12 47          MCW   @5@,TPHLT2&4                            7  0930  M S31 K01         167
1283 12 48          MCW   @5@,TPHLT3&4                            7  0937  M S31 J42         167
1284 12 49          MCW   @00@,PROCSW                             7  0944  M S33 L95         167
1285 12 50          MCW   @ @,SFXCTR                              7  0951  M S34 L23         168
1286 12 51   *
1287 12 52   * SET NUMBER OF SEEKS FOR TABLE SEARCH
1288 12 53   *
1289 12 54          C     TOTLAB,TABLSZ                             7  0958  C L93 L18         168
1290 12 55          MCW   TABLSZ,SERCHS                             7  0965  M L18 L99         168
1291 12 56          S     TOTLAB                                    4  0972  S L93             168
1292 12 57          BE    RDPSSC                                    5  0976  B K72 S           168
1293 12 58          BH    RDPSSC                                    5  0981  B K72 U           168
1294 12 59          MCW   &0009,SERCHS                             7  0986  M S38 L99         169
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

1295 12 60          B     RDPSSC                                     4  0993  B K72               169
1296 12 61   *
1297 12 62   * LAST ITERATION, GET PASS E
1298 12 63   *
1299 12 64   EOJOB  CW    GPMRK2-1                                   4  0997  ) U30               169
1300 12 65          CS    3999                                       4  1001  / I99               169
1301 12 66          BCE   READE,MACHSZ,3                            8  1005  B |44 L89 3         169
1302 12 67          CS    4799                                       4  1013  / 79Z               169
1303 12 68          CHAIN 7                                                                MACRO
1304                CS                                               1  1017  /                   GEN   169
1305                CS                                               1  1018  /                   GEN   170
1306                CS                                               1  1019  /                   GEN   170
1307                CS                                               1  1020  /                   GEN   170
1308                CS                                               1  1021  /                   GEN   170
1309                CS                                               1  1022  /                   GEN   170
1310                CS                                               1  1023  /                   GEN   170
1311 12 681  CLR    CS    3999                                       4  1024  / I99               170
1312 12 682         SBR   CLR&3                                      4  1028  H |27               171
1313 12 683         C     CLR&3,&SSOP-1                              7  1032  C |27 S41           171
1314 12 684         BU    CLR                                        5  1039  B |24 /             171
1315 12 69   READE  RTW   SYSTPE,SSOP                               8  1044  L %U1 Z00 R         171
1316 12 70          BER   SYSERR                                     5  1052  B |68 L             171
1317 12 71   GOTOE  MCW   @N@,SSOP                                  7  1057  M S42 Z00           171
1318 12 72          B     SSOP&1                                     4  1064  B Z01               172
1319 12 73   SYSERR MCW   &9,RDCT#1                                 7  1068  M S43 S44           172
1320 12 74          BSP   SYSTPE                                     5  1075  U %U1 B             172
1321 12 75   RETRY  RTW   SYSTPE,SSOP                               8  1080  L %U1 Z00 R         172
1322 12 76          BER   AGAIN                                      5  1088  B |97 L             172
1323 12 77          B     GOTOE                                      4  1093  B |57               172
1324 12 78   AGAIN  BSP   SYSTPE                                     5  1097  U %U1 B             172
1325 12 79          S     @1@,RDCT                                   7  1102  S S05 S44           173
1326 12 80          BWZ   RETRY,RDCT,B                              8  1109  V |80 S44 B         173
1327 12 81          H     XXXX,691                                   7  1117  . 000 691           173
1328 12 82          RTW   SYSTPE,SSOP                               8  1124  L %U1 Z00 R         173
1329 12 83          BSS   SYSERR,E                                   5  1132  B |68 E             173
1330 12 84          H     XXXX,612                                   7  1137  . 000 612           174
1331 12 85          B     GOTOE                                      4  1144  B |57               174
1332 12 86   LIST   DCW   @ ABCDEFGHI!JKLMNOPQR|/STUVWXYZ)@@       32  1179                      175
1333 12 87   SORTAB EQU   LIST-31                                        1148
1334 12 88          LTORG *                                                  1180
       1158  HEADSW DCW   #01                                         1  1180            AREA  175
                          @A@                                        1  1181            LIT   175
                          @Z@                                        1  1182            LIT   175
                          @010@                                      3  1185            LIT   175
       1186               @UNREFERENCED LABELS@                     19  1204            LIT   176
                          @1@                                        1  1205            LIT   176
                          @&X@                                       2  1207            LIT   176
                          @2@                                        1  1208            LIT   176
                          @3@                                        1  1209            LIT   176
       1223  ENDSW        #01                                        1  1210            AREA  176
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					&1		1	1211		LIT	176
					@016@		3	1214		LIT	177
					@128@		3	1217		LIT	177
		1250	PNTSW		#01		1	1218		AREA	177
		1263			@SYMBOL TABLE@		12	1230		LIT	177
					@5@		1	1231		LIT	177
					@00@		2	1233		LIT	177
					@ @		1	1234		LIT	177
					&0009		4	1238		LIT	178
		1313			&SSOP-1		3	1241	Y99	ADCON	178
					@N@		1	1242		LIT	178
					&9		1	1243		LIT	178
		1319	RDCT		#01		1	1244		AREA	178
1335	12	89	ENDOVL	DCW	@}@		1	1245			178
1336	12	90		EX	LIBRN				B 000		179
1337	12	91		END	LIBRN				/ 000 080		182

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CLEAR STORAGE 1     ,008015,019026,030,034041,045,053,0570571026                                    1
CLEAR STORAGE 2     L068112,102106,113/101099/I99,027A070028)027B0010270B0261,001/001113I0          2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039              ,0010011040         3


                          1401 AUTOCODER-PASS 7-LIST,CONDNS-INITL 1 -VERSION 3       3771L               PAGE    1


 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

 101  1 01   000    JOB   1401 AUTOCODER-PASS 7-LIST,CONDNS-INITL 1 -VERSION 3
 102  1 02          CTL   630 1
 103  1 03   *
 104  1 04   * EQUATES USED BY PROGRAM
 105  1 05   *
 106  1 06   INITAP EQU   %U0                                                          %U0
 107  1 07   SYSTAP EQU   %U1                                                          %U1
 108  1 08   ORIGTP EQU   %U4                                                          %U4
 109  1 09   WORKTP EQU   %U5                                                          %U5
 110  1 10   XTRATP EQU   %U6                                                          %U6
 111  1 11   FIXFRM EQU   0                                                           0000
 112  1 12   STLABL EQU   FIXFRM&2                                                    0002
 113  1 13   STSTMT EQU   FIXFRM&5                                                    0005
 114  1 14   COUNT  EQU   FIXFRM&7                                                    0007
 115  1 15   ORGADD EQU   FIXFRM&32                                                   0032
 116  1 16   LABADD EQU   FIXFRM&61                                                   0061
 117  1 17   SUPADD EQU   FIXFRM&66                                                   0066
 118  1 18   OP     EQU   FIXFRM&67                                                   0067
 119  1 19   AOP    EQU   FIXFRM&70                                                   0070
 120  1 20   BOP    EQU   FIXFRM&73                                                   0073
 121  1 21   DMOD   EQU   FIXFRM&74                                                   0074
 122  1 22   TYPE   EQU   FIXFRM&75                                                   0075
 123  1 23   ALTER  EQU   FIXFRM&80                                                   0080
 124  1 24   XXXX   EQU   0                                                           0000
 125  1 25   PRINT  EQU   200                                                         0200
 126  1 26   ALT    EQU   PRINT&4                                                     0204
 127  1 27   PG     EQU   PRINT&7                                                     0207
 128  1 28   LIN    EQU   PRINT&11                                                    0211
 129  1 29   LAB    EQU   PRINT&19                                                    0219
 130  1 30   OPCODE EQU   PRINT&25                                                    0225
 131  1 31   OPRAND EQU   PRINT&78                                                    0278
 132  1 32   SUFFIX EQU   PRINT&80                                                    0280
 133  1 33   CT     EQU   PRINT&84                                                    0284
 134  1 34   LOCN   EQU   PRINT&90                                                    0290
 135  1 35   INOP   EQU   PRINT&93                                                    0293
 136  1 36   INAOP  EQU   PRINT&97                                                    0297
 137  1 37   INBOP  EQU   PRINT&101                                                   0301
 138  1 38   INDMOD EQU   PRINT&103                                                   0303
 139  1 39   KIND   EQU   PRINT&109                                                   0309
 140  1 40   CARDNO EQU   PRINT&114                                                   0314
 141  1 41   PUNCH  EQU   100                                                         0100
 142  1 42   LIBRN  EQU   0                                                           0000
 143  1 43   ZONE   EQU   189                                                         0189
 144  1 44   XR1    EQU   89                                                          0089
 145  1 45   XR2    EQU   94                                                          0094
 146  1 46   XR3    EQU   99                                                          0099
 147  1 47   *
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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

148  1 48   * INITIALIZATION ROUTINE
149  1 49   *
150  1 50          ORG   1900                                                     1900
151  1 51   SSOP   DCW   @B@                                            1  1900                      4
152  1 52          CS    332                                            4  1901  / 332                4
153  1 53          CS                                                   1  1905  /                    4
154  1 54          CS                                                   1  1906  /                    4
155  1 55          CS                                                   1  1907  /                    4
156  1 56          RTW   SYSTAP,400                                     8  1908  L %U1 400 R          4
157  1 57          NOP   XXXX                                           4  1916  N 000                4
158  1 58          BER   TPERRI                                         5  1920  B M03 L              5
159  1 59          CW    ENDIN2,LSTOP1                                  7  1925  ) X99 O93            5
160  1 60          SW    ENDIN                                          4  1932  , I98                5
161  1 61          LCA   ENDIN,333                                      7  1936  L I98 333            5
162  1 62          LCA   ENDIN,181                                      7  1943  L I98 181            5
163  1 63          MCW   SSOP,TSTSIZ                                    7  1950  M Z00 407            5
164  1 64          MCW   SSOP,SSAVE1                                    7  1957  M Z00 O91            6
165  1 65          CW    ENDIN                                          4  1964  ) I98                6
166  1 66          RWD   ORIGTP                                         5  1968  U %U4 R              6
167  1 67          RWD   WORKTP                                         5  1973  U %U5 R              6
168  1 68          RWD   XTRATP                                         5  1978  U %U6 R              6
169  1 69          SW    PUNCH&72,PUNCH&76                              7  1983  , 172 176            6
170  1 70          A     &1,PUNCH&75                                    7  1990  A O96 175            7
171  1 71          B     READ4                                          4  1997  B T15                7
172  1 72   *
173  1 73   * CHECK FOR JOB CARD
174  1 74   *
175  1 75          C     MNEMON-2,@JOB@                                 7  2001  C H48 O99            7
176  1 76          BU    CKCTL                                          5  2008  B !78 /              7
177  1 77          CW    JOBSW#1                                        4  2013  ) P00                7
178  1 78          RT    WORKTP,180                                     8  2017  M %U5 180 R          7
179  1 79          LCA   333,181                                        7  2025  L 333 181            8
180  1 80          MCW   OPERND,JOBSAV                                  7  2032  M I02 O85            8
181  1 81          MCW   IMAGE&80,PUNCH&80                              7  2039  M I10 180            8
182  1 82          MCW   ALTNO,JOBALT#4                                 7  2046  M I14 P04            8
183  1 83          MCW   PAGENO,JOBPAG#2                                7  2053  M H32 P06            8
184  1 84          MCW   LINENO,JOBLIN#3                                7  2060  M H35 P09            9
185  1 85          MCW   LABEL,JOBLAB#6                                 7  2067  M H41 P15            9
186  1 86          B     READ4                                          4  2074  B T15                9
187  1 87   *
188  1 88   * CHECK FOR CONTROL CARD
189  1 89   *
190  1 90   CKCTL  C     MNEMON-2,@CTL@                                 7  2078  C H48 P18            9
191  1 91          BU    TSTSIZ                                         5  2085  B 407 /              9
192  1 92          CW    CTLSW#1                                        4  2090  ) P19                9
193  1 93          MCW   IMAGE&30,CTLSAV#10                             7  2094  M H60 P29           10
194  1 94          MCW   ALTNO,CTLALT#4                                 7  2101  M I14 P33           10
195  1 95          MCW   PAGENO,CTLPAG#2                                7  2108  M H32 P35           10
196  1 96          MCW   LINENO,CTLLIN#3                                7  2115  M H35 P38           10
197  1 97          B     READ4                                          4  2122  B T15               10
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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
198  1 98   *
199  1 99   * TEST OUTPUT OPTION DESIRED
200  2 00   *
201  2 01   CHKOP   BCE   OPNTAP,LSTAPE,1                              8  2126  B K14 P24 1         11
202  2 02   TSTOP   BCE   TSTSIZ,OUTOPN,0                             8  2134  B 407 P22 0         11
203  2 03          BCE   CONDOP,OUTOPN,1                             8  2142  B 400 P22 1         11
204  2 04          BCE   TSTSIZ,OUTOPN,2                             8  2150  B 407 P22 2         11
205  2 05          BCE   CONDOP,OUTOPN,3                             8  2158  B 400 P22 3         12
206  2 06          BCE   TSTSIZ,OUTOPN,4                             8  2166  B 407 P22 4         12
207  2 07          BCE   CONDOP,OUTOPN,5                             8  2174  B 400 P22 5         12
208  2 08          BCE   TSTSIZ,OUTOPN,6                             8  2182  B 407 P22 6         12
209  2 09          BCE   CONDOP,OUTOPN,7                             8  2190  B 400 P22 7         13
210  2 10          BCE   TSTSIZ,OUTOPN,                              8  2198  B 407 P22           13
211  2 11          CW    CTLSW1#1                                    4  2206  ) P39               13
212  2 12          B     TSTSIZ                                      4  2210  B 407               13
213  2 13   OPNTAP CW    TAPOP1                                      4  2214  ) O92               13
214  2 14          B     TSTOP                                       4  2218  B J34               13
215  2 15   *
216  2 16   * SETUP & GET MAIN PROGRAM
217  2 17   *
218  2 18   GETMAN BSP   ORIGTP                                      5  2222  U %U4 B             13
219  2 19          SW    FIXFRM&1,FIXFRM&6                           7  2227  , 001 006           14
220  2 20          SW    FIXFRM&8,FIXFRM&14                          7  2234  , 008 014           14
221  2 21          SW    FIXFRM&23,FIXFRM&57                         7  2241  , 023 057           14
222  2 22          SW    FIXFRM&62,FIXFRM&67                         7  2248  , 062 067           14
223  2 23          SW    FIXFRM&68,FIXFRM&71                         7  2255  , 068 071           14
224  2 24          SW    FIXFRM&74                                   4  2262  , 074               14
225  2 25          CW    181,333                                     7  2266  ) 181 333           15
226  2 26          MCW   KBLK1,HOLDA1-1                             7  2273  M O27 O23           15
227  2 27          LCA   @L0     ,      ,      ,      1   @,PUNCH&71  7  2280  L P71 171           15
228  2 28          LCA   @2SKB@,ZONE                                 7  2287  L P75 189           15
229  2 29          LCA   @00000@,XR3&2                               7  2294  L P80 101           15
230  2 30          LCA   XR3&2                                       4  2301  L 101               15
231  2 31          LCA                                             1  2305  L                   16
232  2 32          SW    GRPMK3                                      4  2306  , O95               16
233  2 33          BCE   SETOUT,CNDSW1,1                            8  2310  B L49 O33 1         16
234  2 34          BW    *&5,LSTOP1                                  8  2318  V L30 O93 1         16
235  2 35          B     SETOUT                                      4  2326  B L49               16
236  2 36          BW    *&5,TAPOP1                                  8  2330  V L42 O92 1         16
237  2 37          B     SETOUT                                      4  2338  B L49               16
238  2 38          MCW   @1@,NOOUT1                                7  2342  M P81 O94           17
239  2 39   SETOUT MCW   OUTOPN,OPNSV1                              7  2349  M P22 O90           17
240  2 40          WTW   XTRATP,SAVCN1                             8  2356  L %U6 O21 W         17
241  2 41          NOP   XXXX                                        4  2364  N 000               17
242  2 42          BER   TPERRI                                      5  2368  B M03 L             17
243  2 43          RWD   XTRATP                                      5  2373  U %U6 R             17
244  2 44          CW    GRPMK3                                      4  2378  ) O95               18
245  2 45          RTW   SYSTAP,201                                  8  2382  L %U1 201 R         18
246  2 46          NOP   XXXX                                        4  2390  N 000               18
247  2 47          BER   TPERRI                                      5  2394  B M03 L             18
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
248  2 48           B     INIT2                                     4  2399  B 201               18
249  2 49    *
250  2 50    * TAPE REDUNDANCY ROUTINE
251  2 51    *
252  2 52    TPERRI SBR    XR2                                       4  2403  H 094               18
253  2 53           SBR    REDXI&3                                   4  2407  H M75               18
254  2 54           MZ     &9,XR2                                    7  2411  Y P82 094           19
255  2 55           MCW    4000-10&X2,TPINSI&7                       7  2418  M IR0 M66           19
256  2 56           MN     TPINSI&3,BSPI&3                           7  2425  D M62 M42           19
257  2 57           MCW    TPINSI&7,INST2I&7                         7  2432  M M66 N75           19
258  2 58    BSPI   BSP    INITAP                                    5  2439  U %U0 B             19
259  2 59           BCE    WRTRDI,TPINSI&7,W                         8  2444  B N48 M66 W         20
260  2 60           MCW    &9,READCI#1                               7  2452  M P82 P83           20
261  2 61    TPINSI RT     INITAP,XXXX                               8  2459  M %U0 000 R         20
262  2 62           BER    RDRERI                                    5  2467  B M76 L             20
263  2 63    REDXI  B      XXXX                                      4  2472  B 000               20
264  2 64    RDRERI MN     TPINSI&3,BSP2I&3                          7  2476  D M62 M86           20
265  2 65    BSP2I  BSP    INITAP                                    5  2483  U %U0 B             21
266  2 66           S      &1,READCI                                 7  2488  S O96 P83           21
267  2 67           BWZ    TPINSI,READCI,B                           8  2495  V M59 P83 B         21
268  2 68           MN     TPINSI&3,TPHALI&6                         7  2503  D M62 N16           21
269  2 69    TPHALI H      XXXX,790                                  7  2510  . 000 790           21
270  2 70           MCW    TPINSI&7,*&8                              7  2517  M M66 N31           22
271  2 71           RT     INITAP,XXXX                               8  2524  M %U0 000 R         22
272  2 72           BSS    BSPI,E                                    5  2532  B M39 E             22
273  2 73           H      XXXX,711                                  7  2537  . 000 711           22
274  2 74           B      REDXI                                     4  2544  B M72               22
275  2 75    WRTRDI SKP    SYSTAP                                    5  2548  U %U1 E             22
276  2 76           BCE    SUBCTI,WRTCTI-1,5                         8  2553  B N85 P84 5         23
277  2 77           A      &1,WRTCTI#2                               7  2561  A O96 P85           23
278  2 78    INST2I WT     INITAP,XXXX                               8  2568  M %U0 000 W         23
279  2 79           BER    BSPI                                      5  2576  B M39 L             23
280  2 80           B      REDXI                                     4  2581  B M72               23
281  2 81    SUBCTI S      WRTCTI                                    4  2585  S P85               23
282  2 82           MN     TPINSI&3,*&7                              7  2589  D M62 O02           24
283  2 83           H      XXXX,760                                  7  2596  . 000 760           24
284  2 84           B      INST2I                                    4  2603  B N68               24
285  2 85    CLRLEG DCW    @CLEAR STORAGE @                         14  2620                      24
286  2 86    HOLDA1 DCW    &0000                                     4  2624                      24
287  2 87    KBLK1  DCW    @080@                                     3  2627                      24
288  2 88    CORSIZ DCW    @ 3999@                                   5  2632                      25
289  2 89    CNDSW1 DCW    @0@                                       1  2633                      25
290  2 90    JOBSAV DCW    #52                                      52  2685                      27
291  2 91    ERRCT1 DCW    @00000@                                   4  2689                      27
292  2 92    OPNSV1 DCW    @ @                                       1  2690                      27
293  2 93    SSAVE1 DCW    @ @                                       1  2691                      27
294  2 94    TAPOP1 DCW    @ @                                       1  2692                      27
295  2 95    LSTOP1 DCW    @ @                                       1  2693                      28
296  2 96    NOOUT1 DCW    @ @                                       1  2694                      28
297  2 97    GRPMK3 DC     @}@                                       1  2695                      28
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
298  2 98   SAVCN1 EQU   HOLDA1-3                                        2621
299  2 99          LTORG *                                                  2696
                   DCW   &1                                           1  2696             LIT     28
                         @JOB@                                        3  2699             LIT     28
       177  JOBSW        #01                                          1  2700             AREA    28
       182  JOBALT       #04                                          4  2704             AREA    28
       183  JOBPAG       #02                                          2  2706             AREA    28
       184  JOBLIN       #03                                          3  2709             AREA    29
       185  JOBLAB       #06                                          6  2715             AREA    29
                         @CTL@                                        3  2718             LIT     29
       192  CTLSW        #01                                          1  2719             AREA    29
       193  CTLSAV       #10                                         10  2729             AREA    29
       194  CTLALT       #04                                          4  2733             AREA    29
       195  CTLPAG       #02                                          2  2735             AREA    29
       196  CTLLIN       #03                                          3  2738             AREA    30
       211  CTLSW1       #01                                          1  2739             AREA    30
       227               @L0     ,      ,      ,      1   @           32  2771             LIT     30
                         @2SKB@                                       4  2775             LIT     31
       229               @000000@                                     5  2780             LIT     31
                         @1@                                          1  2781             LIT     31
                         &9                                           1  2782             LIT     31
       260  READCI       #01                                          1  2783             AREA    31
       277  WRTCTI       #02                                          2  2785             AREA    31
300  3 00          ORG   3831                                             3831
301  3 01   INPUT4 DA    1X86                                           3831   3916              31
302  3 02   PAGENO       1,2                                            3832             FIELD   32
303  3 03   LINENO       3,5                                            3835             FIELD   32
304  3 04   LABEL        6,11                                           3841             FIELD   32
305  3 05   MNEMON       16,20                                          3850             FIELD   32
306  3 06   OPERND       21,72                                          3902             FIELD   32
307  3 07   ALTNO        81,84                                          3914             FIELD   32
308  3 08   IMAGE  EQU   INPUT4-1                                       3830
309  3 09   FIXINP EQU   IMAGE&87&X3                                    3917 X
310  3 10   INPUT5 EQU   FIXINP&1&X0                                    3918
311  3 11   PROSIZ EQU   CTLSAV-9                                       2720
312  3 12   OBJSIZ EQU   CTLSAV-8                                       2721
313  3 13   OUTOPN EQU   CTLSAV-7                                       2722
314  3 14   LSTAPE EQU   CTLSAV-5                                       2724
315  3 15   ENDIN  EQU   3998                                           3998
316  3 16   3998   DCW   @}@                                          1  3998                      33
317  3 17          XFR   LIBRN                                              B 000                 34
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
318  3 18           JOB   1401 AUTOCODER-PASS 7 LIST,CONDNS-INITL 2 -VERSION 3
319  3 19           ORG   400                                                      0400
320  3 20   *
321  3 21   * CONDENSE OPTION
322  3 22   *
323  3 23   CONDOP MCW   @1@,CNDSW1                                          7  0400  M T64 O33           37
324  3 24   *
325  3 25   * TEST OBJECT MACHINE SIZE
326  3 26   *
327  3 27   TSTSIZ BSS   SENSW,F                                             5  0407  B /03 F             37
328  3 28          BW    *&3,LSTOP1                                         8  0412  V 422 O93 1         37
329  3 29          CC    1                                                  2  0420  F 1                 37
330  3 30          MCW   @1@,PRINT&15                                       7  0422  M T64 215           37
331  3 31          MCW   CLRLEG                                             4  0429  M O20               37
332  3 32          MCW   @1@,200                                           7  0433  M T64 200           38
333  3 33          BW    IS4K,CTLSW                                         8  0440  V 544 P19 1         38
334  3 34          C     OBJSIZ,@3@                                         7  0448  C P21 T65           38
335  3 35          BL    OVER4K                                             5  0455  B 464 T             38
336  3 36          B     IS4K                                               4  0460  B 544               38
337  3 37   OVER4K C     OBJSIZ,@6@                                         7  0464  C P21 T66           38
338  3 38          BL    BADCTL                                             5  0471  B 540 T             39
339  3 39          MCW   @,053053N000000N00001026@,PUNCH&52                 7  0476  M T89 152           39
340  3 40          LCA   @,008015,022026,030037,044,049@                    4  0483  L U18               39
341  3 41          MCW   PUNCH&52,PRINT&72                                   7  0487  M 152 272           39
342  3 42          B     PRTPNH                                             4  0494  B S17               39
343  3 43          MCW   @1,001/001117I0?@,PUNCH&71                         7  0498  M U33 171           39
344  3 44          MCW   @#071029C029056B026/B001/099@                      4  0505  M U60               39
345  3 45          LCA   @L068116,105106,110117B101/I9I@                    4  0509  L U89               40
346  3 46          BCE   IS8K,OBJSIZ,4                                      8  0513  B 651 P21 4         40
347  3 47          BCE   IS12K,OBJSIZ,5                                     8  0521  B 669 P21 5         40
348  3 48          MCW   @15@,CORSIZ-3                                      7  0529  M U91 O29           40
349  3 49          B     CLRST2                                             4  0536  B 683               40
350  3 50   BADCTL CW    CTLSW1                                             4  0540  ) P39               40
351  3 51   IS4K   MCW   @,0570571026@,PUNCH&44                            7  0544  M V02 144           41
352  3 52          LCA   @,008015,019026,030,034041,045,053@               4  0551  L V35               41
353  3 53          MCW   PUNCH&44,PRINT&64                                  7  0555  M 144 264           41
354  3 54          B     PRTPNH                                             4  0562  B S17               41
355  3 55          MCW   @B0010270B0261,001/001113I0@,PUNCH&70              7  0566  M V61 170           41
356  3 56          LCA   @L068112,102106,113/101099/I99,027A070028)027@     4  0573  L W05               41
357  3 57          BCE   CLRST2,OBJSIZ,3                                    8  0577  B 683 P21 3         42
358  3 58          MZ    @S@,PUNCH&27                                       7  0585  Y W06 127           42
359  3 59          MCW   @1@,CORSIZ-3                                       7  0592  M T64 O29           42
360  3 60          BCE   CLRST2,OBJSIZ,2                                    8  0599  B 683 P21 2         42
361  3 61          MCW   @T@,PUNCH&27                                       7  0607  M W07 127           42
362  3 62          MCW   @3@,CORSIZ-2                                       7  0614  M T65 O30           43
363  3 63          BCE   CLRST2,OBJSIZ,1                                    8  0621  B 683 P21 1         43
364  3 64          CW    CTLSW1                                             4  0629  ) P39               43
365  3 65          MCW   @I@,PUNCH&27                                       7  0633  M W08 127           43
366  3 66          MCW   @39@,CORSIZ-2                                      7  0640  M W10 O30           43
367  3 67          B     CLRST2                                             4  0647  B 683               43
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
368  3 68   IS8K    MZ    @S@,PUNCH&29                                      7  0651  Y W06 129           44
369  3 69           MCW   @7@,CORSIZ-3                                      7  0658  M W11 O29           44
370  3 70           B     CLRST2                                            4  0665  B 683               44
371  3 71   IS12K   MZ    @K@,PUNCH&29                                      7  0669  Y W12 129           44
372  3 72           MCW   @11@,CORSIZ-3                                     7  0676  M W14 O29           44
373  3 73   CLRST2  MCW   PUNCH&71,PRINT&91                                 7  0683  M 171 291           44
374  3 74           MCW   @2@,PRINT&15                                      7  0690  M W15 215           45
375  3 75           MCW   CLRLEG                                            4  0697  M O20               45
376  3 76           B     PRTPNH                                            4  0701  B S17               45
377  3 77           MCW   @,00100110040@,PUNCH&71                         7  0705  M W26 171           45
378  3 78           MCW   @,061068,072/061039@,PUNCH&46                     7  0712  M W44 146           45
379  3 79           LCA   @,008015,022029,036040,047054@                    4  0719  L W72               45
380  3 80           MCW   PUNCH&71,PRINT&91                                 7  0723  M 171 291           46
381  3 81           MCW   @BOOTSTRAP@,PRINT&9                              7  0730  M W81 209           46
382  3 82           B     PRTPNH                                            4  0737  B S17               46
383  3 83           BW    *&3,LSTOP1                                        8  0741  V 751 O93 1         46
384  3 84           CC    K                                                 2  0749  F K                 46
385  3 85           BW    DOHEAD,CTLSW                                      8  0751  V 818 P19 1         46
386  3 86   *
387  3 87   * TEST PROCESSOR MACHINE SIZE
388  3 88   *
389  3 89           C     PROSIZ,@3@                                        7  0759  C P20 T65           47
390  3 90           BE    DOHEAD                                            5  0766  B 818 S             47
391  3 91           BH    BADPRO                                            5  0771  B 814 U             47
392  3 92           C     PROSIZ,@6@                                        7  0776  C P20 T66           47
393  3 93           BL    BADPRO                                            5  0783  B 814 T             47
394  3 94           MCW   @400@,KBLK1                                       7  0788  M W84 O27           47
395  3 95           BCE   DOHEAD,PROSIZ,4                                   8  0795  B 818 P20 4         48
396  3 96           A     @400@,KBLK1                                       7  0803  A W84 O27           48
397  3 97           B     DOHEAD                                            4  0810  B 818               48
398  3 98   BADPRO  CW    CTLSW1                                            4  0814  ) P39               48
399  3 99   *
400  4 00   * PRINT HEADING, JOB & CONTROL CARDS
401  4 01   *
402  4 02   DOHEAD  MCW   @1@,PRINT&114                                    7  0818  M T64 314           48
403  4 03           MCW   @PAGE@,PRINT&109                                  7  0825  M W88 309           48
404  4 04           MCW   JOBSAV,OPRAND                                     7  0832  M O85 278           49
405  4 05           MCW   PUNCH&80,LOCN                                     7  0839  M 180 290           49
406  4 06           MCW   @0@,200                                          7  0846  M W89 200           49
407  4 07           B     PRINT2                                            4  0853  B |61               49
408  4 08           BW    *&3,LSTOP1                                        8  0857  V 867 O93 1         49
409  4 09           CC    K                                                 2  0865  F K                 49
410  4 10           CS    PRINT&78                                          4  0867  / 278               49
411  4 11           MCW   @SFX CT  LOCN  INSTRUCTION TYPE  CARD@,PRINT&114  7  0871  M X25 314           50
412  4 12           MCW   @SEQ PG LIN  LABEL  OP    OPERANDS@,PRINT&34      7  0878  M X58 234           50
413  4 13           MCW   @0@,200                                          7  0885  M W89 200           50
414  4 14           B     PRINT2                                            4  0892  B |61               50
415  4 15           CS    PRINT&132                                         4  0896  / 332               50
416  4 16           CS                                                      1  0900  /                   50
417  4 17           B     PRINT2                                            4  0901  B |61               50
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SEQ PG LIN  LABEL   OP    OPERANDS                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
418  4 18           BW    TSTCTL,JOBSW                           8  0905  V 970 P00 1          51
419  4 19           MCS   JOBALT,ALT                            7  0913  Z P04 204            51
420  4 20           MCS   JOBPAG,PG                             7  0920  Z P06 207            51
421  4 21           MZ    JOBPAG,PG                             7  0927  Y P06 207            51
422  4 22           MCW   JOBLIN,LIN                           7  0934  M P09 211            51
423  4 23           MCW   JOBLAB,LAB                           7  0941  M P15 219            52
424  4 24           MCW   @JOB@,OPCODE-2                       7  0948  M X61 223            52
425  4 25           MCW   JOBSAV,OPRAND                        7  0955  M O85 278            52
426  4 26           B     PRINT2                                4  0962  B |61                52
427  4 27           CS    OPRAND                                4  0966  / 278                52
428  4 28   TSTCTL  BW    NOCNTL,CTLSW                          8  0970  V |50 P19 1          52
429  4 29           MCS   CTLALT,ALT                            7  0978  Z P33 204            53
430  4 30           MCS   CTLPAG,PG                             7  0985  Z P35 207            53
431  4 31           MZ    CTLPAG,PG                             7  0992  Y P35 207            53
432  4 32           MCW   CTLLIN,LIN                           7  0999  M P38 211            53
433  4 33           MCW   CTLSAV,PRINT&36                      7  1006  M P29 236            53
434  4 34           MCW   @CTL@,OPCODE-2                       7  1013  M X64 223            54
435  4 35           BW    CTLPNT,CTLSW1                         8  1020  V |42 P39 1          54
436  4 36           MCW   @BAD STATEMENT@,PRINT&128            7  1028  M X77 328            54
437  4 37   ERRCTL  A     &1,ERRCT1                             7  1035  A X78 O89            54
438  4 38   CTLPNT  B     PRINT2                                4  1042  B |61                54
439  4 39           B     GETMAN                                4  1046  B K22                54
440  4 40   NOCNTL  MCW   @NO CONTROL CARD@,PRINT&130          7  1050  M X93 330            55
441  4 41           B     ERRCTL                                4  1057  B |35                55
442  4 42   PRINT2  SBR   PNT2XT&3                              4  1061  H /02                55
443  4 43           BW    *&2,LSTOP1                            8  1065  V |74 O93 1          55
444  4 44           W                                           1  1073  2                    55
445  4 45           BW    PNT2XT,TAPOP1                         8  1074  V |99 O92 1          55
446  4 46           WT    3,200                                 8  1082  M %U3 200 W          56
447  4 47           NOP   XXXX                                  4  1090  N 000                56
448  4 48           BER   TPERRI                                5  1094  B M03 L              56
449  4 49   PNT2XT  B     XXXX                                  4  1099  B 000                56
450  4 50   *
451  4 51   * TEST SENSE SWITCHES FOR OUTPUT OPTIONS
452  4 52   *
453  4 53   SENSW   LCA   @0@,OUTOPN                           7  1103  L W89 P22            56
454  4 54           LCA   @0@,CNDSW1                           7  1110  L W89 O33            56
455  4 55           MCW   @ @,LSTAPE                           7  1117  M X94 P24            57
456  4 56           SW    TAPOP1                                4  1124  , O92                57
457  4 57           BSS   ADD1,B                                5  1128  B /68 B              57
458  4 58   TSTSSC  BSS   ADD2,C                                5  1133  B /79 C              57
459  4 59   TSTSSG  BSS   ADD4,G                                5  1138  B /90 G              57
460  4 60   TSTSSD  BSS   LSTAP,D                               5  1143  B S01 D              57
461  4 61   TSTSSE  BSS   SUPLST,E                              5  1148  B S09 E              57
462  4 62   SSXT    CW    OUTOPN                                4  1153  ) P22                58
463  4 63           MCW   @N@,TSTSIZ                           7  1157  M X95 407            58
464  4 64           B     CHKOP                                 4  1164  B J26                58
465  4 65   ADD1    A     &1,OUTOPN                             7  1168  A X78 P22            58
466  4 66           B     TSTSSC                                4  1175  B /33                58
467  4 67   ADD2    A     &2,OUTOPN                             7  1179  A X96 P22            58
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SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
468  4 68           B     TSTSSG                             4  1186  B /38               58
469  4 69   ADD4    A     &4,OUTOPN                          7  1190  A X97 P22           59
470  4 70           B     TSTSSD                             4  1197  B /43               59
471  4 71   LSTAP   CW    TAPOP1                             4  1201  ) O92               59
472  4 72           B     TSTSSE                             4  1205  B /48               59
473  4 73   SUPLST  SW    LSTOP1                             4  1209  , O93               59
474  4 74           B     SSXT                               4  1213  B /53               59
475  4 75   *
476  4 76   * PRINT AND/OR PUNCH
477  4 77   *
478  4 78   PRTPNH  SBR   EXIT&3                             4  1217  H T14               59
479  4 79           MCS   PUNCH&75,CARDNO                    7  1221  Z 175 314           60
480  4 80           BW    *&2,LSTOP1                         8  1228  V S37 O93 1         60
481  4 81           W                                        1  1236  2                   60
482  4 82           BW    PUNCH1,TAPOP1                      8  1237  V S86 O92 1         60
483  4 83           WT    3,200                              8  1245  M %U3 200 W         60
484  4 84           NOP   XXXX                               4  1253  N 000               60
485  4 85           BER   TPERRI                             5  1257  B M03 L             61
486  4 86           MCW   @&@,100                            7  1262  M X98 100           61
487  4 87           WT    3,100                              8  1269  M %U3 100 W         61
488  4 88           NOP   XXXX                               4  1277  N 000               61
489  4 89           BER   TPERRI                             5  1281  B M03 L             61
490  4 90   PUNCH1  BCE   *&2,CNDSW1,0                       8  1286  B S95 O33 0         61
491  4 91           P                                        1  1294  4                   61
492  4 92           A     &1,PUNCH&75                        7  1295  A X78 175           62
493  4 93           CS    PRINT&132                          4  1302  / 332               62
494  4 94           CS                                       1  1306  /                   62
495  4 95           CS    PUNCH&71                           4  1307  / 171               62
496  4 96   EXIT    B     XXXX                               4  1311  B 000               62
497  4 97   *
498  4 98   * READ ORIGINAL TAPE
499  4 99   *
500  5 00   READ4   SBR   READ4X&3                          4  1315  H T39               62
501  5 01           RT    ORIGTP,INPUT4                      8  1319  M %U4 H31 R         62
502  5 02           B     CHKLG                              4  1327  B T40               63
503  5 03           BER   TPERRI                             5  1331  B M03 L             63
504  5 04   READ4X  B     XXXX                               4  1336  B 000               63
505  5 05   CHKLG   BCE   READ4&4,INPUT4&12,}                8  1340  B T19 H43 }         63
506  5 06           CHAIN 12                                                 MACRO
507                 BCE                                      1  1348  B         GEN       63
508                 BCE                                      1  1349  B         GEN       63
509                 BCE                                      1  1350  B         GEN       63
510                 BCE                                      1  1351  B         GEN       64
511                 BCE                                      1  1352  B         GEN       64
512                 BCE                                      1  1353  B         GEN       64
513                 BCE                                      1  1354  B         GEN       64
514                 BCE                                      1  1355  B         GEN       64
515                 BCE                                      1  1356  B         GEN       64
516                 BCE                                      1  1357  B         GEN       64
517                 BCE                                      1  1358  B         GEN       65
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX CT	LOCN	INSTRUCTION TYPE	CARD
518				BCE		1	1359	B GEN	65
519	5	07		B	READ4X-5	4	1360	B T31	65
520	5	08		LTORG	*			1364	
				DCW	@1@	1	1364	LIT	65
					@3@	1	1365	LIT	65
					@6@	1	1366	LIT	65
		339			@,053053N000000N000001026@	23	1389	LIT	65
		340			@,008015,022026,030037,044,049@	29	1418	LIT	66
		343			@1,001/001117I0?@	15	1433	LIT	67
		344			@#071029C029056B026/B001/099@	27	1460	LIT	68
		345			@L068116,105106,110117B101/I9I@	29	1489	LIT	69
					@15@	2	1491	LIT	69
		351			@,0570571026@	11	1502	LIT	70
		352			@,008015,019026,030,034041,045,053@	33	1535	LIT	71
		355			@B0010270B0261,001/001113I0@	26	1561	LIT	72
		356			@L068112,102106,113/101099/I99,027A070028)027@	44	1605	LIT	74
					@S@	1	1606	LIT	74
					@T@	1	1607	LIT	74
					@I@	1	1608	LIT	74
					@39@	2	1610	LIT	74
					@7@	1	1611	LIT	75
					@K@	1	1612	LIT	75
					@11@	2	1614	LIT	75
					@2@	1	1615	LIT	75
		377			@,00100110400@	11	1626	LIT	75
		378			@,061068,072/061039@	18	1644	LIT	75
		379			@,008015,022029,036040,047054@	28	1672	LIT	76
		381			@BOOTSTRAP@	9	1681	LIT	76
					@400@	3	1684	LIT	77
					@PAGE@	4	1688	LIT	77
					@0@	1	1689	LIT	77
		411			@SFX CT LOCN INSTRUCTION TYPE CARD@	36	1725	LIT	78
		412			@SEQ PG LIN LABEL OP OPERANDS@	33	1758	LIT	79
					@JOB@	3	1761	LIT	79
					@CTL@	3	1764	LIT	79
		436			@BAD STATEMENT@	13	1777	LIT	80
					&1	1	1778	LIT	80
		440			@NO CONTROL CARD@	15	1793	LIT	80
					@ @	1	1794	LIT	80
					@N@	1	1795	LIT	80
					&2	1	1796	LIT	80
					&4	1	1797	LIT	80
					@&@	1	1798	LIT	81
521	5	09	ENDIN2	DCW	@}@	1	1799		81
522	5	10		XFR	LIBRN			B 000	82

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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
523  5 11          JOB   1401 AUTOCODER-PASS 7 PROCESS EX/END -VERSION 3
524  5 12          ORG   ISIOCS                                                  0794
525  5 13   *
526  5 14   * EX, END CARDS
527  5 15   *
528  5 16   EXEND  MCW   @B@,INOP                                          7  0794  M D12 293           85
529  5 17         MCW   @B@,HOLDH&1                                       7  0801  M D12 D93           85
530  5 18         BCE   SETAOP,TYPE,C                                     8  0808  B 830 075 C         85
531  5 19         MCW   @/     080@,INBOP                                 7  0816  M D21 301           85
532  5 20         MCW   @/   080@,HOLDH&7                                 7  0823  M D28 D99           85
533  5 21   SETAOP MCW   AOP,INAOP                                        7  0830  M 070 297           86
534  5 22         MCW   AOP,HOLDH&4                                       7  0837  M 070 D96           86
535  5 23         BCE   SYMUND,AOP,#                                      8  0844  B L09 070 #         86
536  5 24         B     SETLOC                                            4  0852  B U18               86
537  5 25         B     CONDNS                                            4  0856  B L54               86
538  5 26         B     PRNTLN                                            4  0860  B Y54               86
539  5 27         BCE   GETOV1,TYPE,C                                     8  0864  B Z63 075 C         87
540  5 28         CC    1                                                 2  0872  F 1                 87
541  5 29         MCW   @1@,200                                           7  0874  M D29 200           87
542  5 30         MCS   ERRCNT,PRINT&4                                    7  0881  Z C66 204           87
543  5 31         C     PRINT&4,BLANK4#4                                  7  0888  C 204 D33           87
544  5 32         BU    SETERH                                            5  0895  B 945 /             87
545  5 33   TSTCOR BW    EOJOB,ADDRSW#1                                    8  0900  V 928 D34 1         88
546  5 34         MCW   WORD1,PRINT&20                                    7  0908  M S49 220           88
547  5 35         B     WTAPE                                             4  0915  B J24               88
548  5 36         BW    *&2,LSTOP                                         8  0919  V 928 C70 1         88
549  5 37         W                                                       1  0927  2                   88
550  5 38   EOJOB  BW    RESET,TAPOP                                       8  0928  V 543 C69 1         88
551  5 39         WTM   3                                                 5  0936  U %U3 M             89
552  5 40         B     RESET                                             4  0941  B 543               89
553  5 41   SETERH MCW   @ERRORS@,PRINT&11                                7  0945  M D40 211           89
554  5 42         C     PRINT&4,@   1@                                    7  0952  C 204 D44           89
555  5 43         BU    *&8                                               5  0959  B 971 /             89
556  5 44         MCW   BLANK1,PRINT&11                                   7  0964  M D30 211           89
557  5 45         B     WTAPE                                             4  0971  B J24               89
558  5 46         BW    *&2,LSTOP                                         8  0975  V 984 C70 1         90
559  5 47         W                                                       1  0983  2                   90
560  5 48         CS    PRINT&11                                          4  0984  / 211               90
561  5 49         B     TSTCOR                                            4  0988  B 900               90
562  5 50   *
563  5 51   * CONDENSE EX, END CARDS
564  5 52   *
565  5 53   NOCARD C     WMLOC,AWMSTR                                      7  0992  C C75 C78           90
566  5 54         BE    TSTEND                                            5  0999  B |20 S             90
567  5 55         CW    NEWSW                                             4  1004  ) G27               90
568  5 56   ENDRTN BW    NOCARD,NEWSW                                      8  1008  V 992 G27 1         91
569  5 57         B     PNCHCD                                            4  1016  B P62               91
570  5 58   TSTEND BCE   EXCUTE,TYPE,C                                    8  1020  B |57 075 C         91
571  5 59         CS    PUNCH&71                                          4  1028  / 171               91
572  5 60         MCW   HOLDH&7,PUNCH&46                                  7  1032  M D99 146           91
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
573  5 61           MCS   PUNCH&75,CARDNO                                     7  1039  Z 175 314           91
574  5 62           SBR   PNHXT&3,LSTCD                                      7  1046  H Q90 S11           92
575  5 63           B     TSTPCH                                            4  1053  B Q21               92
576  5 64   EXCUTE  MCE   WMSTR,PUNCH&71                                    7  1057  E D11 171           92
577  5 65           MCW   @N000000@,PUNCH&46                                7  1064  M D51 146           92
578  5 66           MCW   HOLDH&4,PUNCH&71                                  7  1071  M D96 171           92
579  5 67           MCS   PUNCH&75,CARDNO                                   7  1078  Z 175 314           92
580  5 68           SBR   PNHXT&3,EXOUT                                     7  1085  H Q90 |96           93
581  5 69           B     TSTPCH                                            4  1092  B Q21               93
582  5 70   *
583  5 71   * PUNCH COMPATIBILITY CARDS
584  5 72   *
585  5 73   EXOUT   CS    PUNCH&71                                          4  1096  / 171               93
586  5 74           B     READOG                                            4  1100  B B09               93
587  5 75           BSP   ORIGTP                                           5  1104  U %U4 B             93
588  5 76           C     MNEMON-2,@JOB@                                    7  1109  C H48 D54           93
589  5 77           BU    *&8                                               5  1116  B /28 /             93
590  5 78           MCW   IMAGE&80,PUNCH&80                                7  1121  M I10 180           94
591  5 79           MCW   WORD2,PUNCH&39                                    7  1128  M S88 139           94
592  5 80           LCA   WORD3,PUNCH&66                                    7  1135  L S99 166           94
593  5 81           MCW   PUNCH&66,PUNCH&50                                 7  1142  M 166 150           94
594  5 82           BCE   *&2,CONDSW,0                                      8  1149  B /58 C10 0         94
595  5 83           P                                                       1  1157  4                   94
596  5 84           B     WTAP2                                             4  1158  B ?43               95
597  5 85           CS    PUNCH&66                                          4  1162  / 166               95
598  5 86           A     &1,PUNCH&75                                       7  1166  A D55 175           95
599  5 87           MCW   WORD4,PUNCH&21                                    7  1173  M T20 121           95
600  5 88           MCW   WORD5,PUNCH&71                                    7  1180  M T31 171           95
601  5 89           SBR   PNHXT&3,OUTEX                                     7  1187  H Q90 S26           95
602  5 90           BCE   *&2,CONDSW,0                                      8  1194  B S03 C10 0         96
603  5 91           P                                                       1  1202  4                   96
604  5 92           B     WTAP2                                             4  1203  B ?43               96
605  5 93           B     NEWCRD                                            4  1207  B Q34               96
606  5 94   LSTCD   CS    PUNCH&80                                          4  1211  / 180               96
607  5 95           BCE   *&4,CONDSW,0                                      8  1215  B S26 C10 0         96
608  5 96           P                                                       1  1223  4                   96
609  5 97           SS    8                                                 2  1224  K 8                 97
610  5 98   OUTEX   B     CNDOUT&7                                          4  1226  B ?14               97
611  5 99   WORD1   DCW   @OBJECT CORE EXCEEDED@                           20  1249                      97
612  6 00   WORD2   DCW   @,015022)024056,029036,040047,0540611001@        39  1288                      98
613  6 01   WORD3   DCW   @,001008B001@                                    11  1299                      99
614  6 02   WORD4   DCW   @,068072)063067/061039@                          21  1320                      99
615  6 03   WORD5   DCW   @,0010011040@                                    11  1331                     100
616  6 04   OV2GM   DCW   @}@                                              1  1332                     100
617  6 05           XFR   LIBRN                                                     B 000               101
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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

618  6 06          JOB   1401 AUTOCODER-PASS 7 LEFT MAIN LINE -VERSION 3
619  6 07   *
620  6 08   * READ SECOND HALF OF MAIN PROGRAM
621  6 09   *
622  6 10          ORG   201                                                  0201
623  6 11   INIT2  RTW   SYSTAP,2000                                  8  0201  L %U1 !00 R        104
624  6 12          NOP   XXXX                                           4  0209  N 000              104
625  6 13          BER   TPERR                                          5  0213  B 334 L            104
626  6 14          RTW   XTRATP,SAVCON                                 8  0218  L %U6 B98 R        104
627  6 15          NOP   XXXX                                           4  0226  N 000              104
628  6 16          BER   TPERR                                          5  0230  B 334 L            104
629  6 17          RWD   XTRATP                                        5  0235  U %U6 R            104
630  6 18          CW    GMSAVE,WMSW#1                                7  0240  ) C72 D56          105
631  6 19          CW    ENDE1,ENDE2                                  7  0247  ) Z94 H27          105
632  6 20          SW    GM,181                                       7  0254  , 333 181          105
633  6 21          SW    OV1GM                                        4  0261  , U17              105
634  6 22          WTW   XTRATP,ISIOCS                                8  0265  L %U6 794 W        105
635  6 23          NOP   XXXX                                           4  0273  N 000              105
636  6 24          BER   TPERR                                          5  0277  B 334 L            106
637  6 25          RWD   XTRATP                                        5  0282  U %U6 R            106
638  6 26          CW    OV1GM                                        4  0287  ) U17              106
639  6 27          ZA    &5,LINCT                                     7  0291  ? D57 F13          106
640  6 28          BCE   RESET,NOOUT,1                                8  0298  B 543 C71 1        106
641  6 29          B     GET                                          4  0306  B A24              106
642  6 30          B     SETUP                                        4  0310  B 595              106
643  6 31          DCW   @ @                                          1  0314                     107
644  6 32   *
645  6 33   * MAIN LINE PROGRAM
646  6 34   *
647  6 35          ORG   333                                                  0333
648  6 36   GM     DC    @}@                                          1  0333                     108
649  6 37   *
650  6 38   * TAPE REDUNDANCY ROUTINE
651  6 39   *
652  6 40   TPERR  SBR   XR2                                          4  0334  H 094              108
653  6 41          SBR   REDXT&3                                      4  0338  H 406              108
654  6 42          MZ    PLUS9,XR2                                    7  0342  Y 538 094          108
655  6 43          MCW   4000-10&X2,TPINST&7                          7  0349  M IR0 397          108
656  6 44          MN    TPINST&3,BSP1&3                              7  0356  D 393 373          109
657  6 45          MCW   TPINST&7,INST2&7                            7  0363  M 397 506          109
658  6 46   BSP1   BSP   INITAP                                       5  0370  U %U0 B            109
659  6 47          BCE   WRTRED,TPINST&7,W                            8  0375  B 479 397 W        109
660  6 48          MCW   PLUS9,READCT                                 7  0383  M 538 540          109
661  6 49   TPINST RT    INITAP,XXXX                                  8  0390  M %U0 000 R        110
662  6 50          BER   RDRERR                                       5  0398  B 407 L            110
663  6 51   REDXT  B     XXXX                                         4  0403  B 000              110
664  6 52   RDRERR MN    TPINST&3,BSP2&3                              7  0407  D 393 417          110
665  6 53   BSP2   BSP   INITAP                                       5  0414  U %U0 B            110
666  6 54          S     PLUS1,READCT                                 7  0419  S 539 540          110
667  6 55          BWZ   TPINST,READCT,B                             8  0426  V 390 540 B        111
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
668  6 56          MN    TPINST&3,TPHALT&6                    7  0434  D 393 447           111
669  6 57   TPHALT H     XXXX,790                             7  0441  . 000 790           111
670  6 58          MCW   TPINST&7,*&8                        7  0448  M 397 462           111
671  6 59          RT    INITAP,XXXX                          8  0455  M %U0 000 R         111
672  6 60          BSS   BSP1,E                             5  0463  B 370 E             112
673  6 61          H     XXXX,712                             7  0468  . 000 712           112
674  6 62          B     REDXT                                4  0475  B 403               112
675  6 63   WRTRED SKP   SYSTAP                               5  0479  U %U1 E             112
676  6 64          BCE   SUBCTR,WRTCTR-1,5                    8  0484  B 516 541 5         112
677  6 65          A     PLUS1,WRTCTR                         7  0492  A 539 542           112
678  6 66   INST2  WT    INITAP,XXXX                          8  0499  M %U0 000 W         113
679  6 67          BER   BSP1                                 5  0507  B 370 L             113
680  6 68          B     REDXT                                4  0512  B 403               113
681  6 69   SUBCTR S     WRTCTR                               4  0516  S 542               113
682  6 70          MN    TPINST&3,*&7                         7  0520  D 393 533           113
683  6 71          H     XXXX,760                             7  0527  . 000 760           113
684  6 72          B     INST2                                4  0534  B 499               113
685  6 73   PLUS9  DCW   &9                                   1  0538                      114
686  6 74   PLUS1  DCW   &1                                   1  0539                      114
687  6 75   READCT DCW   #1                                   1  0540                      114
688  6 76   WRTCTR DCW   #2                                   2  0542                      114
689  6 77   *
690  6 78   * GET PASS F
691  6 79   *
692  6 80   RESET  LCA   SSAVE,201                           7  0543  L C68 201           114
693  6 81          LCA                                       1  0550  L                   114
694  6 82          RT    SYSTAP,332                           8  0551  M %U1 332 R         114
695  6 83          CW    181,333                              7  0559  ) 181 333           115
696  6 84          RTW   SYSTAP,2000                          8  0566  L %U1 !00 R         115
697  6 85          NOP   XXXX                                 4  0574  N 000               115
698  6 86          BER   TPERR                                5  0578  B 334 L             115
699  6 87          MCW   201,2001                             7  0583  M 201 !01           115
700  6 88          MCW                                       1  0590  M                   115
701  6 89          B     2002                                 4  0591  B !02               115
702  6 90   *
703  6 91   * BEGIN MAIN LINE PROGRAM
704  6 92   *
705  6 93   SETUP  CS    PRINT&132                            4  0595  / 332               116
706  6 94          CS                                        1  0599  /                   116
707  6 95   GETORG B     READOG                               4  0600  B B09               116
708  6 96   *
709  6 97   * DETERMINE TYPE
710  6 98   *
711  6 99   ANALWK SW    TYPESW#1                             4  0604  , D58               116
712  7 00          MN    TYPE,TYPEA#1                         7  0608  D 075 D59           116
713  7 01          BCE   BYPASS,TYPE,%                        8  0615  B S85 075 %         116
714  7 02          BCE   BYPASS,TYPE,8                        8  0623  B S85 075 8         116
715  7 03          BCE   BYPASS,TYPE,I                        8  0631  B S85 075 I         117
716  7 04          BCE   BYPASS,TYPE,H                        8  0639  B S85 075 H         117
717  7 05          BCE   PROWRK,ALTER,                       8  0647  B 881 080           117
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SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
718  7 06   ANALOG  BCE   SETCOM,LABEL-5,*                     8  0655  B J72 H36 *        117
719  7 07           BCE   MACPNT,IMAGE&75,R                    8  0663  B 805 I05 R        118
720  7 08           BCE   ISIOCS,IMAGE&75,W                    8  0671  B 794 I05 W        118
721  7 09           BCE   MACPNT&7,IMAGE&75,S                 8  0679  B 812 I05 S        118
722  7 10           BCE   MACPNT&7,IMAGE&75,Z                 8  0687  B 812 I05 Z        118
723  7 11           C     MNEMON-2,@JOB@                      7  0695  C H48 D54          118
724  7 115          BE    DOJOB                               5  0702  B 843 S            119
725  7 12           C     ALTER,ALTNO                         7  0707  C 080 I14          119
726  7 13           BU    SEQERR                              5  0714  B ?83 /            119
727  7 14           B     SETFRE                              4  0719  B T01              119
728  7 15           CW    TYPESW                              4  0723  ) D58              119
729  7 16           BCE   INSTR,TYPE,                         8  0727  B V43 075          119
730  7 17           MN    TYPE,XR2                            7  0735  D 075 094          120
731  7 18           A     XR2                                 4  0742  A 094              120
732  7 19           A     XR2                                 4  0746  A 094              120
733  7 20           B     *&1&X2                              4  0750  B 7N4              120
734  7 21           B     DA                                  4  0754  B W52              120
735  7 22           B     CONST                               4  0758  B |62              120
736  7 23           B     DSA                                 4  0762  B 969              120
737  7 24           B     GETOV2                              4  0766  B ?94              121
738  7 25           B     SFX                                 4  0770  B L43              121
739  7 26           B     TYPERR                              4  0774  B S78              121
740  7 27           B     ORG                                 4  0778  B K12              121
741  7 28           B     DS                                  4  0782  B K85              121
742  7 29           B     TYPERR                              4  0786  B S78              121
743  7 30           B     TYPERR                              4  0790  B S78              121
744  7 31   *
745  7 32   * MACRO CARD
746  7 33   *
747  7 34   ISIOCS  MCW   @IOCS@,KIND-1                       7  0794  M D63 308          122
748  7 35           B     MACPNT&7                            4  0801  B 812              122
749  7 36   MACPNT  MCW   @MACRO@,KIND                        7  0805  M D68 309          122
750  7 37           B     SETFRE                              4  0812  B T01              122
751  7 38           BCE   CALERR,IMAGE&86,7                   8  0816  B 828 I16 7        122
752  7 39           B     COMXT                               4  0824  B J85              122
753  7 40   CALERR  MCW   @OVERCALL@,PRINT&123                7  0828  M D76 323          123
754  7 41           B     BMPERR                              4  0835  B L28              123
755  7 42           B     COMXT                               4  0839  B J85              123
756  7 43   *
757  7 44   * NEW JOB CARD
758  7 45   *
759  7 46   DOJOB   MCW   OPERND,JOB                          7  0843  M I02 C62          123
760  7 47           BW    DOIDT,NEWSW                         8  0850  V 862 G27 1        123
761  7 48           B     PNCHCD                              4  0858  B P62              123
762  7 49   DOIDT   MCW   IMAGE&80,PUNCH&80                   7  0862  M I10 180          124
763  7 50           S     LINCT                               4  0869  S F13              124
764  7 51           B     PRTHDG                              4  0873  B !00              124
765  7 52           B     MACPNT&7                            4  0877  B 812              124
766  7 53   *
767  7 54   * PROGRAM GENERATED RECORD
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
768  7 55   *
769  7 56   PROWRK BCE   XTRA,TYPE,Y                              8  0881  B 924 075 Y        124
770  7 57          CW    OP&1                                     4  0889  ) 068              124
771  7 58          MCS   AOP,PRINT&11                             7  0893  Z 070 211          124
772  7 59          SW    OP&1                                     4  0900  , 068              125
773  7 60          BCE   ADCON,TYPE,S                            8  0904  B 944 075 S        125
774  7 61          BCE   LITRAL,TYPEA,1                         8  0912  B 999 D59 1        125
775  7 62          B     TYPERR                                   4  0920  B S78              125
776  7 63   *
777  7 64   * LITERAL GREATER THAN 30 CHARACTERS
778  7 65   *
779  7 66   XTRA   SW    PRINT&27                                 4  0924  , 227              125
780  7 67          MCW   FIXFRM&72,OPRAND                         7  0928  M 072 278          125
781  7 68          CHAIN 5                                                        MACRO
782                MCW                                            1  0935  M          GEN     125
783                MCW                                            1  0936  M          GEN     126
784                MCW                                            1  0937  M          GEN     126
785                MCW                                            1  0938  M          GEN     126
786                MCW                                            1  0939  M          GEN     126
787  7 69          B     BYPASS                                   4  0940  B S85              126
788  7 70   *
789  7 71   * ADCON CARD
790  7 72   *
791  7 73   ADCON  MCW   @ADCON@,KIND                             7  0944  M D81 309          126
792  7 74          SW    PRINT&27                                 4  0951  , 227              126
793  7 75          MCW   FIXFRM&53,PRINT&40                       7  0955  M 053 240          127
794  7 76          MCW   FIXFRM&16,OPCODE-2                      7  0962  M 016 223          127
795  7 77   DSA    MCW   BOP,PRINT&95                            7  0969  M 073 295          127
796  7 78          MCW   BOP,HOLDH&3                            7  0976  M 073 D95          127
797  7 79          B     SETADD                                   4  0983  B S45              127
798  7 80          BCE   SYMUND,BOP,#                           8  0987  B L09 073 #        128
799  7 81          B     SETLIT                                   4  0995  B /56              128
800  7 82   *
801  7 83   * LITERAL & AREA DEFINITION CARDS
802  7 84   *
803  7 85   LITRAL BWZ   PROLIT,TYPE,S                           8  0999  V |41 075 S        128
804  7 86          BWZ   DADC,FIXFRM&1,B                          8  1007  V S28 001 B        128
805  7 87          MCW   @RMARK@,KIND                             7  1015  M D86 309          128
806  7 88          BCE   PROLIT&7,TYPE,A                          8  1022  B |48 075 A        129
807  7 89          MCW   @G@,KIND-4                             7  1030  M D87 305          129
808  7 90          B     PROLIT&7                                 4  1037  B |48              129
809  7 91   PROLIT MCW   @LIT@,KIND-2                           7  1041  M D90 307          129
810  7 92          MCW   FIXFRM&53,PRINT&57                      7  1048  M 053 257          129
811  7 93          MCW   FIXFRM&16,OPCODE-2                      7  1055  M 016 223          130
812  7 94   CONST  B     SETADD                                   4  1062  B S45              130
813  7 95          A     @00@,COUNT                               7  1066  A D92 007          130
814  7 96          C     COUNT,@00@                               7  1073  C 007 D92          130
815  7 97          BL    GOOD                                     5  1080  B |96 T            130
816  7 98          MZ    ZONE-1,STSTMT                            7  1085  Y 188 005          130
817  7 99          B     SETLIT                                   4  1092  B /56              131
```

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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
818  8 00   GOOD   BCE   AREADF,PRINT&27,#                         8  1096  B /83 227 #        131
819  8 01          BWZ   AREADF,FIXFRM&4,B                       8  1104  V /83 004 B        131
820  8 02          MCW   OPRAND,HOLDDT-1                         7  1112  M 278 E43          131
821  8 03          BCE   SETLIT,PRINT&27,@                       8  1119  B /56 227 @        131
822  8 04          BWZ   UNSIGN,PRINT&27,2                       8  1127  V /72 227 2        132
823  8 05          MCW   COUNT,XR1                               7  1135  M 007 089          132
824  8 06          MZ    BLANK4,PRINT&27&X1                      7  1142  Y D33 2S7          132
825  8 07          MZ    PRINT&27,HOLDH&X1                       7  1149  Y 227 DZ2          132
826  8 08   SETLIT B     SETLOC                                  4  1156  B U18              132
827  8 09          B     CONDNS                                  4  1160  B L54              132
828  8 10   LITOUT B     PRNTLN                                  4  1164  B Y54              133
829  8 11          B     BYPASS                                  4  1168  B S85              133
830  8 12   UNSIGN MCW   OPRAND,HOLDDT#52                        7  1172  M 278 E44          133
831  8 13          B     SETLIT                                  4  1179  B /56              133
832  8 14   AREADF BW    *&5,TYPESW                              8  1183  V /95 D58 1        133
833  8 15          B     SETLIT                                  4  1191  B /56              133
834  8 16          MCW   FIXFRM&13,LAB                           7  1195  M 013 219          133
835  8 17          MCW   BLANK4-2,PRINT&31                      7  1202  M D31 231          134
836  8 18          MCW   COUNT                                   4  1209  M 007              134
837  8 19          MCW   @#@                                     4  1213  M E45              134
838  8 20          MCW   @AREA@,KIND-1                           7  1217  M E49 308          134
839  8 21          B     SETLIT                                  4  1224  B /56              134
840  8 22   DADC   B     SETADD                                  4  1228  B S45              134
841  8 23          B     CONDNS                                  4  1232  B L54              134
842  8 24          CS    PRINT&132                               4  1236  / 332              135
843  8 25          CS                                            1  1240  /                  135
844  8 26          B     BYPASS                                  4  1241  B S85              135
845  8 27   *
846  8 28   * SET CONDENSE ADDRESSES FOR CONSTANTS
847  8 29   *
848  8 30   SETADD SBR   ADDXT&3                                 4  1245  H S77              135
849  8 31          ZA    LABADD,LOADAD                           7  1249  ? 061 E83          135
850  8 32          MCW   LOADAD                                  4  1256  M E83              135
851  8 33          S     COUNT,WMADDR                            7  1260  S 007 E78          135
852  8 34          A     &1,WMADDR                               7  1267  A D55 E78          136
853  8 35   ADDXT  B     XXXX                                    4  1274  B 000              136
854  8 36   *
855  8 37   * GET NEXT RECORDS
856  8 38   *
857  8 39   TYPERR H     XXXX,770                                7  1278  . 000 770          136
858  8 40   BYPASS B     GET                                     4  1285  B A24              136
859  8 41          BW    ANALWK,TYPESW                           8  1289  V 604 D58 1        136
860  8 42          B     GETORG                                  4  1297  B 600              136
861  8 43   *
862  8 44   * FREE FORM RECORD TO PRINT AREA
863  8 45   *
864  8 46   SETFRE SBR   FREEXT&3                                4  1301  H T89              136
865  8 47          MCS   ALTNO,ALT                               7  1305  Z I14 204          137
866  8 48          MCS   PAGENO,PG                               7  1312  Z H32 207          137
867  8 49          MZ    PAGENO,PG                               7  1319  Y H32 207          137
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
868  8 50           MCW   LINENO,LIN                               7  1326  M H35 211          137
869  8 51           MCW   LABEL,LAB                               7  1333  M H41 219          137
870  8 52           MCW   MNEMON,OPCODE                           7  1340  M H50 225          138
871  8 53           MCW   OPERND,OPRAND                           7  1347  M I02 278          138
872  8 54           BCE   IOGEN,IMAGE&75,Z                        8  1354  B T90 I05 Z        138
873  8 55           BCE   IOGEN,IMAGE&75,Y                        8  1362  B T90 I05 Y        138
874  8 56           BCE   GENSTM,IMAGE&75,C                       8  1370  B T97 I05 C        138
875  8 57           BCE   GENSTM,IMAGE&75,S                       8  1378  B T97 I05 S        139
876  8 58   FREEXT  B     XXXX                                    4  1386  B 000              139
877  8 59   IOGEN   MCW   @IO@,KIND                              7  1390  M E51 309          139
878  8 60   GENSTM  MCW   @GEN@,KIND-2                           7  1397  M E54 307          139
879  8 61           BCE   COMERR,IMAGE&86,B                       8  1404  B J97 I16 B        139
880  8 62           B     FREEXT                                  4  1412  B T86              139
881  8 63           DCW   @ @                                     1  1416                     139
882  8 64   OV1GM   DC    @}@                                     1  1417                     140
883  8 65   *
884  8 66   * ASSEMBLED INFORMATION TO PRINT AREA
885  8 67   *
886  8 68   SETLOC  SBR   LOCXT&3                                 4  1418  H V01              140
887  8 69           MCS   COUNT,CT                                7  1422  Z 007 284          140
888  8 70           MCW   SFXCTR,SUFFIX                           7  1429  M G18 280          140
889  8 71           MN    LABADD,LOCN                             7  1436  D 061 290          140
890  8 72           MCW                                           1  1443  M                  141
891  8 73           BWZ   TSTFR,LABADD-1,2                        8  1444  V U66 060 2        141
892  8 74           MCW   @X@,PRINT&92                           7  1452  M E55 292          141
893  8 75           MZ    BLANK1,PRINT&89                         7  1459  Y D30 289          141
894  8 76   TSTFR   BCE   FOURCH,LABADD-4,0                      8  1466  B V02 057 0        141
895  8 77   TSTLBL  BM    DBLDEF,STLABL                           8  1474  V V13 002 K        141
896  8 78   TSTSTM  BM    STMBAD,STSTMT                           8  1482  V V28 005 K        142
897  8 79           BWZ   STMBAD,STSTMT,S                         8  1490  V V28 005 S        142
898  8 80   LOCXT   B     XXXX                                    4  1498  B 000              142
899  8 81   FOURCH  MCW   BLANK1,LOCN-4                           7  1502  M D30 286          142
900  8 82           B     TSTLBL                                  4  1509  B U74              142
901  8 83   DBLDEF  MCW   @LABEL@,PRINT&120                       7  1513  M E60 320          142
902  8 84           B     BMPERR                                  4  1520  B L28              143
903  8 85           B     TSTSTM                                  4  1524  B U82              143
904  8 86   STMBAD  MCW   @BAD STATEMENT@,PRINT&128               7  1528  M E73 328          143
905  8 87           B     BMPERR                                  4  1535  B L28              143
906  8 88           B     LOCXT                                   4  1539  B U98              143
907  8 89   *
908  8 90   * INSTRUCTION CARD
909  8 91   *
910  8 92   INSTR   MCW   DMOD,INDMOD                            7  1543  M 074 303          143
911  8 93           MCW   BOP,INBOP                               7  1550  M 073 301          143
912  8 94           MCW   AOP,INAOP                               7  1557  M 070 297          144
913  8 95           MCW   OP,INOP                                 7  1564  M 067 293          144
914  8 96           MCW   DMOD,HOLDH&8                           7  1571  M 074 E00          144
915  8 97           MCW                                           1  1578  M                  144
916  8 98           MCW                                           1  1579  M                  144
917  8 99           MCW                                           1  1580  M                  144
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
918  9 00          MCW   LABADD,WMADDR#5                      7  1581  M 061 E78           144
919  9 01          MCW   LABADD,LOADAD#5                      7  1588  M 061 E83           145
920  9 02          A     COUNT,LOADAD                         7  1595  A 007 E83           145
921  9 03          S     &1,LOADAD                            7  1602  S D55 E83           145
922  9 04          BCE   SYMUND,BOP,#                        8  1609  B L09 073 #         145
923  9 05          BCE   SYMUND,AOP,#                        8  1617  B L09 070 #         145
924  9 06          BCE   BADOP,OP,                           8  1625  B W37 067           146
925  9 07          B     SETLIT                               4  1633  B /56               146
926  9 08  BADOP   MCW   @ OP@,PRINT&123                     7  1637  M E86 323           146
927  9 09          B     BMPERR                               4  1644  B L28               146
928  9 10          B     SETLIT                               4  1648  B /56               146
929  9 11  *
930  9 12  * DEFINE AREA CARDS
931  9 13  *
932  9 14  DA    BCE   HEADER,TYPE,0                        8  1652  B X41 075 0         146
933  9 15          MCW   SUPADD,WMADDR                        7  1660  M 066 E78           147
934  9 16          MCW   @FIELD@,KIND                         7  1667  M E91 309           147
935  9 17          BWZ   SETDA,TYPE,B                        8  1674  V W93 075 B         147
936  9 18          MCW   @SBF@,KIND-2                         7  1682  M E94 307           147
937  9 19          B     ORGXT                                4  1689  B K62               147
938  9 20  SETDA   B     SETLOC                               4  1693  B U18               147
939  9 21          B     CONDNS                               4  1697  B L54               148
940  9 22          B     PRNTLN                               4  1701  B Y54               148
941  9 23  BYPDA   B     GET                                  4  1705  B A24               148
942  9 24          BCE   RPTOUT,TYPE,|                       8  1709  B X21 075 |         148
943  9 25          B     GETORG                               4  1717  B 600               148
944  9 26  RPTOUT  MCW   SUPADD,WMADDR                       7  1721  M 066 E78           148
945  9 27          B     CONDNS                               4  1728  B L54               148
946  9 28          CS    PRINT&132                            4  1732  / 332               149
947  9 29          CS                                         1  1736  /                   149
948  9 30          B     BYPDA                                4  1737  B X05               149
949  9 31  HEADER  BWZ   BADDA,FIXFRM&4,B                     8  1741  V Y24 004 B         149
950  9 32          B     SETLOC                               4  1749  B U18               149
951  9 33  NXTRPT  MN    SUPADD,PRINT&97                      7  1753  D 066 297           149
952  9 34          MCW                                        1  1760  M                   149
953  9 35          MCW   LABADD,WMADDR                       7  1761  M 061 E78           150
954  9 36          B     CONDNS                               4  1768  B L54               150
955  9 37          B     GET                                  4  1772  B A24               150
956  9 38          C     FIXFRM&16,@DA @                      7  1776  C 016 E97           150
957  9 39          BU    PNTDA                                5  1783  B X96 /             150
958  9 40          BCE   NXTRPT,TYPE,|                       8  1788  B X53 075 |         150
959  9 41  PNTDA   BCE   ADDR4K,PRINT&93,0                    8  1796  B Y39 293 0         151
960  9 42          C     PRINT&97,OBJCOR                      7  1804  C 297 C09           151
961  9 43          BL    PUADSW                               5  1811  B K97 T             151
962  9 44          B     PRNTLN                               4  1816  B Y54               151
963  9 45          B     GETORG                               4  1820  B 600               151
964  9 46  BADDA   MCW   @ NO B X L@,PRINT&129                7  1824  M F06 329           151
965  9 47          B     BMPERR                               4  1831  B L28               151
966  9 48          B     HEADER&8                             4  1835  B X49               152
967  9 49  ADDR4K  SBR   AD4KXT&3                            4  1839  H Y53               152
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
 968  9 50          MCW   BLANK1,PRINT&93                          7  1843  M D30 293          152
 969  9 51   AD4KXT B     XXXX                                     4  1850  B 000              152
 970  9 52   *
 971  9 53   * PRINT STATEMENTS
 972  9 54   *
 973  9 55   PRNTLN SBR   PRNTXT&3                                 4  1854  H Z50              152
 974  9 56          BCE   DOPNT,LOCN,                             8  1858  B Y86 290          152
 975  9 57          BCE   DOPNT,TYPEA,7                           8  1866  B Y86 D59 7        152
 976  9 58          C     LOCN,@ 0081@                            7  1874  C 290 F11          153
 977  9 59          BH    ADDERR                                  5  1881  B J57 U            153
 978  9 60   DOPNT  BW    *&2,LSTOP                               8  1886  V Y95 C70 1        153
 979  9 61          W                                             1  1894  2                  153
 980  9 62          B     WTAPE                                   4  1895  B J24              153
 981  9 63          BCE   CLR,TYPEA,7                           8  1899  B Z19 D59 7        153
 982  9 64          C     LOCN,OBJCOR                             7  1907  C 290 C09          154
 983  9 65          BL    PUADSW                                  5  1914  B K97 T            154
 984  9 66   CLR    CS    PRINT&132                               4  1919  / 332              154
 985  9 67          CS                                            1  1923  /                  154
 986  9 68          BCE   PRNTXT,TYPE,3                          8  1924  B Z47 075 3        154
 987  9 69          A     &1,LINCT#2                              7  1932  A D55 F13          154
 988  9 70          BCE   OVRFLO,LINCT-1,5                      8  1939  B Z51 F12 5        155
 989  9 71   PRNTXT B     XXXX                                    4  1947  B 000              155
 990  9 72   OVRFLO B     PRTHDG                                  4  1951  B !00              155
 991  9 73          S     LINCT                                   4  1955  S F13              155
 992  9 74          B     PRNTXT                                  4  1959  B Z47              155
 993  9 75   GETOV1 RTW   XTRATP,ISIOCS                           8  1963  L %U6 794 R        155
 994  9 76          NOP   XXXX                                    4  1971  N 000              155
 995  9 77          BER   TPERR                                   5  1975  B 334 L            156
 996  9 78          CW    OV1GM                                   4  1980  ) U17              156
 997  9 79          RWD   XTRATP                                  5  1984  U %U6 R            156
 998  9 80          B     BYPASS                                  4  1989  B S85              156
 999  9 81          DCW   @ @                                     1  1993                     156
1000  9 82   ENDE1  DCW   @}@                                     1  1994                     156
1001  9 83          XFR   LIBRN                                         B 000              157
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 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

1002  9 84          JOB   1401 AUTOCODER-PASS 7 RIGHT MAIN LINE  -VERSION 3
1003  9 85          ORG   2000                                                      2000
1004  9 86   *
1005  9 87   * PRINT PAGE HEADING
1006  9 88   *
1007  9 89   PRTHDG SBR   PHDGXT&3                                          4  2000  H J23             160
1008  9 90          MCW   @PAGE@,PRINT&109                                 7  2004  M F17 309         160
1009  9 91          A     &1,NUMBER                                        7  2011  A D55 C84         160
1010  9 92          MCS   NUMBER,PRINT&114                                 7  2018  Z C84 314         160
1011  9 93          MCW   JOB,OPRAND                                      7  2025  M C62 278         160
1012  9 94          MCW   PUNCH&80,LOCN                                    7  2032  M 180 290         160
1013  9 95          BW    WTHEAD,LSTOP                                     8  2039  V !52 C70 1       161
1014  9 96          CC    1                                                2  2047  F 1               161
1015  9 97          W                                                      1  2049  2                 161
1016  9 98          CC    K                                                2  2050  F K               161
1017  9 99   WTHEAD MCW   @1@,200                                          7  2052  M D29 200         161
1018 10 00          B     WTAPE                                            4  2059  B J24             161
1019 10 01          CS    PRINT&132                                        4  2063  / 332             161
1020 10 02          CS                                                     1  2067  /                 162
1021 10 03          MCW   @SFX CT  LOCN  INSTRUCTION TYPE  CARD@,PRINT&114 7  2068  M F53 314         162
1022 10 04          MCW   @SEQ PG LIN  LABEL  OP    OPERANDS@,PRINT&34    7  2075  M F86 234         162
1023 10 05          BW    *&2,LSTOP                                        8  2082  V !91 C70 1       162
1024 10 06          W                                                      1  2090  2                 162
1025 10 07          MCW   @0@,200                                          7  2091  M F87 200         162
1026 10 08          B     WTAPE                                            4  2098  B J24             162
1027 10 09          CS    PRINT&132                                        4  2102  / 332             163
1028 10 10          CS                                                     1  2106  /                 163
1029 10 11          BW    *&2,LSTOP                                        8  2107  V J16 C70 1       163
1030 10 12          W                                                      1  2115  2                 163
1031 10 13          B     WTAPE                                            4  2116  B J24             163
1032 10 14   PHDGXT B     XXXX                                             4  2120  B 000             163
1033 10 15   WTAPE  SBR   WTXT&3                                           4  2124  H J56             163
1034 10 16          BW    WTXT,TAPOP                                       8  2128  V J53 C69 1       164
1035 10 17          WT    3,200                                            8  2136  M %U3 200 W       164
1036 10 18          NOP   XXXX                                             4  2144  N 000             164
1037 10 19          BER   TPERR                                            5  2148  B 334 L           164
1038 10 20   WTXT   B     XXXX                                             4  2153  B 000             164
1039 10 21   ADDERR MCW   @ ADDR@,PRINT&132                                7  2157  M F92 332         164
1040 10 22          B     BMPERR                                           4  2164  B L28             165
1041 10 23          B     DOPNT                                            4  2168  B Y86             165
1042 10 24   *
1043 10 25   * COMMENTS CARD
1044 10 26   *
1045 10 27   SETCOM B     SETFRE                                           4  2172  B T01             165
1046 10 28          MCW   OPERND,PRINT&80                                  7  2176  M I02 280         165
1047 10 29          MCW                                                    1  2183  M                 165
1048 10 30          MCW                                                    1  2184  M                 165
1049 10 31   COMXT  B     PRNTLN                                           4  2185  B Y54             165
1050 10 32          B     READOG                                           4  2189  B B09             166
1051 10 33          B     ANALOG                                           4  2193  B 655             166
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

1052 10 34   COMERR MCW   @MACRO ERROR@,PRINT&126                   7  2197  M G03 326          166
1053 10 35          B     BMPERR                                    4  2204  B L28              166
1054 10 36          B     FREEXT                                    4  2208  B T86              166
1055 10 37   *
1056 10 38   * ORG, LTORG CARDS
1057 10 39   *
1058 10 40   ORG    MCW   SUPADD,LABADD                             7  2212  M 066 061          166
1059 10 41          MCW   ORGADD,SUPADD                             7  2219  M 032 066          166
1060 10 42          BWZ   BADORG,FIXFRM&1,2                         8  2226  V K70 001 2        167
1061 10 43   ORGOUT MN    SUPADD,PRINT&97                           7  2234  D 066 297          167
1062 10 44          MCW                                             1  2241  M                  167
1063 10 45          BCE   ADDR4K,PRINT&93,0                        8  2242  B Y39 293 0        167
1064 10 46          C     PRINT&97,OBJCOR                           7  2250  C 297 C09          167
1065 10 47          BL    PUADSW                                    5  2257  B K97 T            167
1066 10 48   ORGXT  B     SETLOC                                    4  2262  B U18              168
1067 10 49          B     LITOUT                                    4  2266  B /64              168
1068 10 50   BADORG MCW   @ UNDEF ORG@,PRINT&130                   7  2270  M G13 330          168
1069 10 51          B     BMPERR                                    4  2277  B L28              168
1070 10 52          B     ORGOUT                                    4  2281  B K34              168
1071 10 53   *
1072 10 54   * DS, EQU CARDS
1073 10 55   *
1074 10 56   DS     BCE   SYMUND,AOP,#                              8  2285  B L09 070 #        168
1075 10 57          B     ORGXT                                     4  2293  B K62              168
1076 10 58   *
1077 10 59   * ERROR - ADDRESS EXCEEDS CORE
1078 10 60   *
1079 10 61   PUADSW SBR   ADSWXT&3                                  4  2297  H L08              169
1080 10 62          CW    ADDRSW                                    4  2301  ) D34              169
1081 10 63   ADSWXT B     XXXX                                      4  2305  B 000              169
1082 10 64   *
1083 10 65   * ERROR - UNDEFINED SYMBOL
1084 10 66   *
1085 10 67   SYMUND SBR   UNDXT&3                                   4  2309  H L27              169
1086 10 68          MCW   @ SYM@,PRINT&127                          7  2313  M G17 327          169
1087 10 69          B     BMPERR                                    4  2320  B L28              169
1088 10 70   UNDXT  B     XXXX                                      4  2324  B 000              169
1089 10 71   *
1090 10 72   * BUMP NUMBER OF ERRORS
1091 10 73   *
1092 10 74   BMPERR SBR   ERREXT&3                                  4  2328  H L42              170
1093 10 75          A     &1,ERRCNT                                 7  2332  A D55 C66          170
1094 10 76   ERREXT B     XXXX                                      4  2339  B 000              170
1095 10 77   *
1096 10 78   * SUFFIX CARD
1097 10 79   *
1098 10 80   SFX    MCW   IMAGE&21,SFXCTR#1                         7  2343  M H51 G18          170
1099 10 81          B     LITOUT                                    4  2350  B /64              170
1100 10 82   *
1101 10 83   * CONDENSE ROUTINE
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1102 10 84   *
1103 10 85   CONDNS SBR   CONDXT&3                                  4  2354  H ?42             170
1104 10 86          CW    BIGSW,DCSW                               7  2358  ) H17 G48         170
1105 10 87          BM    CONDXT,STSTMT                            8  2365  V ?39 005 K       171
1106 10 88          BW    PNCHCD,WMSW                              8  2373  V P62 D56 1       171
1107 10 89   *
1108 10 90   * PROCESS RECORD
1109 10 91   *
1110 10 92   NXTRCD BCE   DOWM,TYPEA,0                             8  2381  B N39 D59 0       171
1111 10 93          BCE   ENDRTN,TYPEA,3                          8  2389  B |08 D59 3       171
1112 10 94          BWZ   TSTDC,TYPE,B                           8  2397  V O17 075 B       172
1113 10 95   *
1114 10 96   * TEST ROOM ON CARD
1115 10 97   *
1116 10 98   TSTROM C     COUNT,@39@                               7  2405  C 007 G20         172
1117 10 99          BL    TSTCON                                   5  2412  B Q91 T           172
1118 11 00          MCW   PNHLOC,ROOMCT#3                          7  2417  M C81 G23         172
1119 11 01          A     COUNT,ROOMCT                             7  2424  A 007 G23         172
1120 11 02          C     ROOMCT,@039@                             7  2431  C G23 G26         173
1121 11 03          BL    SETPNH                                   5  2438  B O09 T           173
1122 11 04          BW    RSTCTR,NEWSW#1                           8  2443  V N98 G27 1       173
1123 11 05   *
1124 11 06   * TEST SEQUENCE
1125 11 07   *
1126 11 08          MCW   COUNTR#5,SEQCT#5                         7  2451  M G32 G37         173
1127 11 09          A     COUNT,SEQCT                              7  2458  A 007 G37         173
1128 11 10          C     LOADAD,SEQCT                             7  2465  C E83 G37         174
1129 11 11          BU    SETPNH                                   5  2472  B O09 /           174
1130 11 12          A     COUNT,COUNTR                             7  2477  A 007 G32         174
1131 11 13   *
1132 11 14   * MOVE DATA TO PUNCH AREA
1133 11 15   *
1134 11 16   MVDATA SBR   XR3,HOLDH                               7  2484  H 099 D92         174
1135 11 17          A     COUNT,XR3                                7  2491  A 007 099         174
1136 11 18          A     COUNT,PNHLOC                             7  2498  A 007 C81         175
1137 11 19          MCW   PNHLOC,XR2                               7  2505  M C81 094         175
1138 11 20          MCW   XXXX&X3,PUNCH&X2                        7  2512  M 0?0 1!0         175
1139 11 21          CW    DATASW#1                                 4  2519  ) G38             175
1140 11 22          BW    FIRST,NEWSW                              8  2523  V O53 G27 1       175
1141 11 23          BWZ   CNDOUT,TYPE,B                           8  2531  V ?07 075 B       176
1142 11 24   *
1143 11 25   * SET WORD MARK ADDRESS
1144 11 26   *
1145 11 27   DOWM   MCW   WMADDR,CNVADD#5                         7  2539  M E78 G43         176
1146 11 28          B     CNVRT                                    4  2546  B P16             176
1147 11 29          A     &3,WMLOC                                 7  2550  A G44 C75         176
1148 11 30          MCW   WMLOC,XR1                               7  2557  M C75 089         176
1149 11 31          MCW   CNVADD,WMADDR-2                        7  2564  M G43 E76         177
1150 11 32          MCW   WMADDR-2,XXXX&X1                      7  2571  M E76 0|0         177
1151 11 33          C     XR1,&WMSTR-3                             7  2578  C 089 G47         177
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1152 11 34           BU    CNDOUT                                    5  2585  B ?07 /           177
1153 11 35           SW    WMSW                                      4  2590  , D56             177
1154 11 36           B     CNDOUT                                    4  2594  B ?07             177
1155 11 37   RSTCTR MCW    LOADAD,COUNTR                             7  2598  M E83 G32         178
1156 11 38           B     MVDATA                                    4  2605  B M84             178
1157 11 39   SETPNH B      PNCHCD                                    4  2609  B P62             178
1158 11 40           B     NXTRCD                                    4  2613  B L81             178
1159 11 41   TSTDC  BW     COMPWM,NEWSW                              8  2617  V O29 G27 1       178
1160 11 42           B     TSTROM                                    4  2625  B M05             178
1161 11 43   COMPWM C      WMLOC,AWMSTR                              7  2629  C C75 C78         178
1162 11 44           BE    TSTROM                                    5  2636  B M05 S           179
1163 11 45           SW    DCSW#1                                    4  2641  , G48             179
1164 11 46           B     PNCHCD                                    4  2645  B P62             179
1165 11 47           B     TSTROM                                    4  2649  B M05             179
1166 11 48   *
1167 11 49   * FIRST DATA ON CARD
1168 11 50   *
1169 11 51   FIRST  CW     NEWSW                                     4  2653  ) G27             179
1170 11 52           BWZ   PRODC,TYPE,B                              8  2657  V O69 075 B       179
1171 11 53           B     CNDOUT                                    4  2665  B ?07             179
1172 11 54   *
1173 11 55   * CONDENSE DC CARDS
1174 11 56   *
1175 11 57   PRODC  MCW    @)@,PUNCH&47                              7  2669  M G49 147         180
1176 11 58           MCW   WMADDR,CNVADD                             7  2676  M E78 G43         180
1177 11 59           B     CNVRT                                     4  2683  B P16             180
1178 11 60           MCW   CNVADD,WMADDR-2                          7  2687  M G43 E76         180
1179 11 61           MCW   WMADDR-2,WMSTR-15                        7  2694  M E76 C96         180
1180 11 62           MCW   WMADDR-2                                  4  2701  M E76             180
1181 11 63           A     &6,WMLOC                                  7  2705  A G50 C75         181
1182 11 64           B     CNDOUT                                    4  2712  B ?07             181
1183 11 65   *
1184 11 66   * CONVERT 5 TO 3 DIGIT ADDRESS
1185 11 67   *
1186 11 68   CNVRT  SBR    CNVXT&3                                   4  2716  H P61             181
1187 11 69           BAV   *&1                                       5  2720  B P25 Z           181
1188 11 70   ADDAGN A      &96,CNVADD-3                              7  2725  A G52 G40         181
1189 11 71           BAV   ADDAGN                                    5  2732  B P25 Z           181
1190 11 72           MZ    CNVADD-4,CNVADD                           7  2737  Y G39 G43         181
1191 11 73           MN    CNVADD-3,*&4                              7  2744  D G40 P54         182
1192 11 74           MZ    ZONE,CNVADD-2                             7  2751  Y 189 G41         182
1193 11 75   CNVXT  B      XXXX                                      4  2758  B 000             182
1194 11 76   *
1195 11 77   * PUNCH A CARD
1196 11 78   *
1197 11 79   PNCHCD SBR    PNHXT&3                                   4  2762  H Q90             182
1198 11 80           BW    EDIT,DCSW                                 8  2766  V Q07 G48 1       182
1199 11 81           BW    EDIT,DATASW                               8  2774  V Q07 G38 1       182
1200 11 82           MCW   COUNTR,CNVADD                           7  2782  M G32 G43         183
1201 11 83           B     CNVRT                                     4  2789  B P16             183
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 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

1202 11 84          MCW   CNVADD,WMSTR-21                                    7  2793  M G43 C90          183
1203 11 85          MCW   PNHLOC,WMSTR-24                                    7  2800  M C81 C87          183
1204 11 86   EDIT   MCE   WMSTR,PUNCH&71                                     7  2807  E D11 171          183
1205 11 87          MN    @0@,PUNCH&41                                       7  2814  D F87 141          183
1206 11 88   TSTPCH BCE   *&2,CONDSW,0                                       8  2821  B Q30 C10 0        184
1207 11 89          P                                                        1  2829  4                  184
1208 11 90          B     WTAP2                                              4  2830  B ?43              184
1209 11 91   *
1210 11 92   * RESET COUNTERS & SWITCHES
1211 11 93   *
1212 11 94   NEWCRD A     &1,PUNCH&75                                        7  2834  A D55 175          184
1213 11 95          CS    PUNCH&71                                           4  2841  / 171              184
1214 11 96          LCA   @L0     ,      ,      ,      1   @,PUNCH&71        7  2845  L G84 171          184
1215 11 97          SW    NEWSW,DATASW                                       7  2852  , G27 G38          184
1216 11 98          CW    WMSW,DCSW                                          7  2859  ) D56 G48          185
1217 11 99          MCW   @000@,PNHLOC                                       7  2866  M G87 C81          185
1218 12 00          MCW   AWMSTR,WMLOC                                       7  2873  M C78 C75          185
1219 12 01          MCW   @00100104000400400400400400@,WMSTR                7  2880  M H14 D11          185
1220 12 02   PNHXT  B     XXXX                                               4  2887  B 000              185
1221 12 03   *
1222 12 04   * CONSTANT GREATER THAN 39 CHARACTERS
1223 12 05   *
1224 12 06   TSTCON BW    *&5,NEWSW                                          8  2891  V R03 G27 1        186
1225 12 07          B     PNCHCD                                             4  2899  B P62              186
1226 12 08          MCW   COUNT,HOLDCT#2                                     7  2903  M 007 H16          186
1227 12 09          MCW   LOADAD,COUNTR                                      7  2910  M E83 G32          186
1228 12 10          MCW   @39@,COUNT                                         7  2917  M G20 007          186
1229 12 11          S     @39@,HOLDCT                                        7  2924  S G20 H16          187
1230 12 12          S     HOLDCT,COUNTR                                      7  2931  S H16 G32          187
1231 12 13          MZ    ZONE-3,HOLDCT                                      7  2938  Y 186 H16          187
1232 12 14          SW    BIGSW#1                                            4  2945  , H17              187
1233 12 15          MCW   WMADDR,SAVEWM#5                                    7  2949  M E78 H22          187
1234 12 16          B     MVDATA                                             4  2956  B M84              187
1235 12 17   BIGRN  B     PNCHCD                                             4  2960  B P62              188
1236 12 18          CW    BIGSW                                              4  2964  ) H17              188
1237 12 19          MCW   HOLDCT,COUNT                                      7  2968  M H16 007          188
1238 12 20          MCW   @A@,TYPE                                           7  2975  M H23 075          188
1239 12 21          MCW   HOLDDT,HOLDDT-39                                   7  2982  M E44 E05          188
1240 12 22          MCW   SAVEWM,WMADDR                                      7  2989  M H22 E78          188
1241 12 23          A     @39@,WMADDR                                        7  2996  A G20 E78          189
1242 12 24          B     RSTCTR                                             4  3003  B N98              189
1243 12 25   *
1244 12 26   * EXIT FROM CONDENSE ROUTINE
1245 12 27   *
1246 12 28   CNDOUT MCS   PUNCH&75,CARDNO                                    7  3007  Z 175 314          189
1247 12 29          S     XR3&1                                              4  3014  S 100              189
1248 12 30          S                                                        1  3018  S                  189
1249 12 31          S                                                        1  3019  S                  189
1250 12 32          BW    BIGRN,BIGSW                                        8  3020  V R60 H17 1        189
1251 12 33          MCW   BLANK1,HOLDDT                                      7  3028  M D30 E44          190
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1252 12 34          MCW   HOLDDT                                    4  3035  M E44             190
1253 12 35   CONDXT B     XXXX                                      4  3039  B 000             190
1254 12 36   WTAP2  SBR   WT2XT&3                                   4  3043  H ?82             190
1255 12 37          BW    WT2XT,TAPOP                               8  3047  V ?79 C69 1       190
1256 12 38          MCW   @&@,100                                  7  3055  M H24 100         190
1257 12 39          WT    3,100                                     8  3062  M %U3 100 W       191
1258 12 40          NOP   XXXX                                      4  3070  N 000             191
1259 12 41          BER   TPERR                                     5  3074  B 334 L           191
1260 12 42   WT2XT  B     XXXX                                      4  3079  B 000             191
1261 12 43   *
1262 12 44   * SEQUENCE ERROR ON INPUT RECORDS
1263 12 45   *
1264 12 46   SEQERR H     XXXX,777                                  7  3083  . 000 777         191
1265 12 47          B     SEQERR                                    4  3090  B ?83             191
1266 12 48   GETOV2 RTW   SYSTAP,ISIOCS                             8  3094  L %U1 794 R       192
1267 12 49          NOP   XXXX                                      4  3102  N 000             192
1268 12 50          BER   TPERR                                     5  3106  B 334 L           192
1269 12 51          CW    OV2GM                                     4  3111  ) T32             192
1270 12 52          BSP   SYSTAP                                    5  3115  U %U1 B           192
1271 12 53          B     EXEND                                     4  3120  B 794             192
1272 12 54   *
1273 12 55   * GET RECORD FROM WORKING TAPE
1274 12 56   *
1275 12 57   GET    SBR   WORKXT&3                                  4  3124  H B08             192
1276 12 58          C     BLKCT,KBLKNG                              7  3128  C C00 C04         193
1277 12 59          BU    NXTREC                                    5  3135  B A68 /           193
1278 12 60          S     HOLDA                                     4  3140  S C01             193
1279 12 61          SBR   LGTCK&6,INPUT5&13                        7  3144  H B80 I31         193
1280 12 62          RT    WORKTP,INPUT5                             8  3151  M %U5 I18 R       193
1281 12 63          B     CHKLGT                                    4  3159  B B59             193
1282 12 64          BER   TPERR                                     5  3163  B 334 L           194
1283 12 65   NXTREC A     &80,BLKCT                                 7  3168  A H26 C00         194
1284 12 66          MCW   BLKCT,XR3                                7  3175  M C00 099         194
1285 12 67          MCW   FIXINP,FIXFRM&80                         7  3182  M IA7 080         194
1286 12 68          CHAIN 10                                                       MACRO
1287                MCW                                           1  3189  M           GEN   194
1288                MCW                                           1  3190  M           GEN   194
1289                MCW                                           1  3191  M           GEN   194
1290                MCW                                           1  3192  M           GEN   195
1291                MCW                                           1  3193  M           GEN   195
1292                MCW                                           1  3194  M           GEN   195
1293                MCW                                           1  3195  M           GEN   195
1294                MCW                                           1  3196  M           GEN   195
1295                MCW                                           1  3197  M           GEN   195
1296                MCW                                           1  3198  M           GEN   195
1297 12 69          S     XR3&1                                     4  3199  S 100             196
1298 12 70          S                                             1  3203  S                 196
1299 12 71          S                                             1  3204  S                 196
1300 12 72   WORKXT B     XXXX                                      4  3205  B 000             196
1301 12 73   *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

1302 12 74   * READ ORIGINAL TAPE
1303 12 75   *
1304 12 76   READOG SBR   ORIGXT&3                                  4  3209  H B58              196
1305 12 77          MCW   BLANK1,IMAGE&21                          7  3213  M D30 H51          196
1306 12 78          S     IMAGE&20                                 4  3220  S H50              196
1307 12 79          S                                              1  3224  S                  197
1308 12 80          S                                              1  3225  S                  197
1309 12 81          S                                              1  3226  S                  197
1310 12 82          SBR   LGTCK&6,INPUT4&12                        7  3227  H B80 H43          197
1311 12 83          RT    ORIGTP,INPUT4                            8  3234  M %U4 H31 R        197
1312 12 84          B     CHKLGT                                   4  3242  B B59              197
1313 12 85          BER   TPERR                                    5  3246  B 334 L            197
1314 12 86          S     XR2&1                                    4  3251  S 095              198
1315 12 87   ORIGXT B     XXXX                                     4  3255  B 000              198
1316 12 88   *
1317 12 89   * CHECK FOR SHORT RECORDS
1318 12 90   *
1319 12 91   CHKLGT SBR   XR2                                      4  3259  H 094              198
1320 12 92          SBR   LGTXT&3                                  4  3263  H B97              198
1321 12 93          MZ    @B@,XR2                                  7  3267  Y D12 094          198
1322 12 94   LGTCK  BCE   4000-12&X2,XXXX,}                        8  3274  B IQ8 000 }        198
1323 12 95          CHAIN 12                                                                MACRO
1324                BCE                                            1  3282  B           GEN    198
1325                BCE                                            1  3283  B           GEN    199
1326                BCE                                            1  3284  B           GEN    199
1327                BCE                                            1  3285  B           GEN    199
1328                BCE                                            1  3286  B           GEN    199
1329                BCE                                            1  3287  B           GEN    199
1330                BCE                                            1  3288  B           GEN    199
1331                BCE                                            1  3289  B           GEN    199
1332                BCE                                            1  3290  B           GEN    200
1333                BCE                                            1  3291  B           GEN    200
1334                BCE                                            1  3292  B           GEN    200
1335                BCE                                            1  3293  B           GEN    200
1336 12 96   LGTXT  B     XXXX                                     4  3294  B 000              200
1337 12 97   HOLDA  DCW   &0000                                    4  3301                     200
1338 12 98   BLKCT  EQU   HOLDA-1                                     3300
1339 12 99   KBLKNG DCW   @080@                                    3  3304                     200
1340 13 00   OBJCOR DCW   @ 3999@                                  5  3309                     201
1341 13 01   CONDSW DCW   @0@                                      1  3310                     201
1342 13 02   JOB    DCW   #52                                     52  3362                     203
1343 13 03   ERRCNT DCW   @0000@                                   4  3366                     203
1344 13 04          DCW   @ @                                      1  3367                     203
1345 13 05   SSAVE  DCW   @ @                                      1  3368                     203
1346 13 06   TAPOP  DCW   @ @                                      1  3369                     203
1347 13 07   LSTOP  DCW   @ @                                      1  3370                     204
1348 13 08   NOOUT  DCW   @ @                                      1  3371                     204
1349 13 09   SAVCON EQU   HOLDA-3                                     3298
1350 13 10   GMSAVE DC    @}@                                      1  3372                     204
1351 13 11   WMLOC  DSA   WMSTR-21                                 3  3375  C90                204
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 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

1352 13 12   AWMSTR DSA   WMSTR-21                                          3  3378  C90               204
1353 13 13   PNHLOC DCW   @000@                                             3  3381                    204
1354 13 14   NUMBER DCW   @001@                                             3  3384                    204
1355 13 15   WMSTR  DCW   @0010010400400400400400400400@                   27  3411                    205
1356 13 16          LTORG *                                                        3412
                    DCW   @B@                                               1  3412            LIT   205
        531               @/     080@                                      9  3421            LIT   205
        532               @/   080@                                        7  3428            LIT   206
                          @1@                                               1  3429            LIT   206
        543  BLANK4       #04                                               4  3433            AREA  206
        545  ADDRSW       #01                                               1  3434            AREA  206
        553               @ERRORS@                                          6  3440            LIT   206
                          @   1@                                            4  3444            LIT   206
        577               @N0000000@                                        7  3451            LIT   206
                          @JOB@                                             3  3454            LIT   207
                          &1                                                1  3455            LIT   207
        630  WMSW         #01                                               1  3456            AREA  207
                          &5                                                1  3457            LIT   207
        711  TYPESW       #01                                               1  3458            AREA  207
        712  TYPEA        #01                                               1  3459            AREA  207
                          @IOCS@                                            4  3463            LIT   207
        749               @MACRO@                                           5  3468            LIT   208
        753               @OVERCALL@                                        8  3476            LIT   208
        791               @ADCON@                                           5  3481            LIT   208
        805               @RMARK@                                           5  3486            LIT   208
                          @G@                                               1  3487            LIT   208
                          @LIT@                                             3  3490            LIT   208
                          @00@                                              2  3492            LIT   208
        830  HOLDDT       #52                                              52  3544            AREA  210
                          @#@                                               1  3545            LIT   210
                          @AREA@                                            4  3549            LIT   210
                          @IO@                                              2  3551            LIT   210
                          @GEN@                                             3  3554            LIT   210
                          @X@                                               1  3555            LIT   211
        901               @LABEL@                                           5  3560            LIT   211
        904               @BAD STATEMENT@                                  13  3573            LIT   211
        918  WMADDR       #05                                               5  3578            AREA  211
        919  LOADAD       #05                                               5  3583            AREA  211
                          @ OP@                                             3  3586            LIT   211
        934               @FIELD@                                           5  3591            LIT   211
                          @SBF@                                             3  3594            LIT   212
                          @DA @                                             3  3597            LIT   212
        964               @ NO B X L@                                       9  3606            LIT   212
        976               @ 0081@                                           5  3611            LIT   212
        987  LINCT        #02                                               2  3613            AREA  212
                          @PAGE@                                            4  3617            LIT   212
       1021               @SFX CT  LOCN  INSTRUCTION TYPE  CARD@           36  3653            LIT   213
       1022               @SEQ PG LIN  LABEL  OP    OPERANDS@              33  3686            LIT   214
                          @0@                                               1  3687            LIT   214
       1039               @ ADDR@                                           5  3692            LIT   214
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		1052			@MACRO ERROR@		11	3703		LIT	215
		1068			@ UNDEF ORG@		10	3713		LIT	215
					@ SYM@		4	3717		LIT	215
		1098	SFXCTR		#01		1	3718		AREA	215
					@39@		2	3720		LIT	215
		1118	ROOMCT		#03		3	3723		AREA	215
					@039@		3	3726		LIT	215
		1122	NEWSW		#01		1	3727		AREA	216
		1126	COUNTR		#05		5	3732		AREA	216
		1126	SEQCT		#05		5	3737		AREA	216
		1139	DATASW		#01		1	3738		AREA	216
		1145	CNVADD		#05		5	3743		AREA	216
					&3		1	3744		LIT	216
		1151			&WMSTR-3		3	3747	D08	ADCON	216
		1163	DCSW		#01		1	3748		AREA	217
					@)@		1	3749		LIT	217
					&6		1	3750		LIT	217
					&96		2	3752		LIT	217
		1214			@L0 , , , 1 @		32	3784		LIT	217
					@000@		3	3787		LIT	218
		1219			@0010010400400400400400400400@		27	3814		LIT	218
		1226	HOLDCT		#02		2	3816		AREA	218
		1232	BIGSW		#01		1	3817		AREA	218
		1233	SAVEWM		#05		5	3822		AREA	218
					@A@		1	3823		LIT	218
					@&@		1	3824		LIT	219
					&80		2	3826		LIT	219
1357	13	17	ENDE2	DCW	@}@		1	3827			219
1358	13	18	BLANK1	EQU	BLANK4-3			3430			
1359	13	19	HOLDH	EQU	HOLDDT-52			3492			
1360	13	20		EX	LIBRN				B 000		220
1361	13	21		END	LIBRN				/ 000 080		223

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CLEAR STORAGE 1     ,008015,019026,030,034041,045,053,0570571026                                    1
CLEAR STORAGE 2     L068112,102106,113/101099/I99,027A070028)027B0010270B0261,001/001113I0          2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039             ,0010011040          3


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 SEQ PG LIN  LABEL  OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD

 101  1 01   000    JOB   1401 AUTOCODER-PASS 8 LOAD TAPE-RIGHT MAIN-VERSION 3
 102  1 02          CTL   630 1
 103  1 03   *
 104  1 04   * EQUATES USED BY PROGRAM
 105  1 05   *
 106  1 06   INITAP EQU   %U0                                                        %U0
 107  1 07   INTAPE EQU   %U5                                                        %U5
 108  1 08   OUTAPE EQU   %U6                                                        %U6
 109  1 09   PUNCH  EQU   100                                                       0100
 110  1 10   OUTPUT EQU   PUNCH&1                                                   0101
 111  1 11   IMAGE  EQU   0                                                         0000
 112  1 12   XXXX   EQU   0                                                         0000
 113  1 13   COUNT  EQU   IMAGE&7                                                   0007
 114  1 14   LABADD EQU   IMAGE&61                                                  0061
 115  1 15   SUPADD EQU   IMAGE&66                                                  0066
 116  1 16   AOP    EQU   IMAGE&70                                                  0070
 117  1 17   BOP    EQU   IMAGE&73                                                  0073
 118  1 18   DMOD   EQU   IMAGE&74                                                  0074
 119  1 19   TYPE   EQU   IMAGE&75                                                  0075
 120  1 20   PRINT  EQU   200                                                       0200
 121  1 21   LIBRN  EQU   0                                                         0000
 122  1 22          ORG   87                                                              0087
 123  1 23   XR1    DCW   000                                                   3  0089                      4
 124  1 24          DC    00                                                    2  0091                      4
 125  1 25   XR2    DCW   000                                                   3  0094                      4
 126  1 26          DC    00                                                    2  0096                      4
 127  1 27   XR3    DCW   000                                                   3  0099                      4
 128  1 28          DC    00                                                    2  0101                      4
 129  1 29   *
 130  1 30   * INITIALIZATION ROUTINE
 131  1 31   *
 132  1 32          ORG   336                                                             0336
 133  1 33   ZONE   DCW   @2SKB@                                                4  0339                      5
 134  1 34   INITLZ RWD   OUTAPE                                                5  0340  U %U6 R             5
 135  1 35          C     OUTOPN,@2@                                            7  0345  C !00 P07           5
 136  1 36          BH    ENDJOB                                                5  0352  B !55 U             5
 137  1 37          C     OUTOPN,@7@                                            7  0357  C !00 P08           5
 138  1 38          BL    ENDJOB                                                5  0364  B !55 T             5
 139  1 39          RWD   4                                                     5  0369  U %U4 R             5
 140  1 40          RWD   INTAPE                                                5  0374  U %U5 R             6
 141  1 41          CW    LTAPSW,PNH4SW                                         7  0379  ) P25 P26           6
 142  1 42          MCW   SSOP,TSTSS                                            7  0386  M !01 475           6
 143  1 43   *
 144  1 44   * TEST FOR CTL CARD
 145  1 45   *
 146  1 46   READ4  MCW   @013@,LGTCK&6                                         7  0393  M P11 O58           6
 147  1 47          RT    4,1                                                   8  0400  M %U4 001 R         6
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
148  1 48           B     CHKLGT                                    4  0408  B O37               6
149  1 49           BER   TPERR                                     5  0412  B M33 L             7
150  1 50           C     18,@JOB@                                  7  0417  C 018 P14           7
151  1 51           BU    CKCTL                                     5  0424  B 444 /             7
152  1 52           MCW   79,IDENT#4                               7  0429  M 079 P18           7
153  1 53           CW    JOBSW#1                                   4  0436  ) P19               7
154  1 54           B     READ4                                     4  0440  B 393               7
155  1 55   CKCTL   C     18,@CTL@                                  7  0444  C 018 P22           7
156  1 56           MCW   OUTOPN,23                                 7  0451  M !00 023           8
157  1 57           RWD   4                                         5  0458  U %U4 R             8
158  1 58           BE    TSTSS                                     5  0463  B 475 S             8
159  1 59           LCA   @33@,22                                  7  0468  L P24 022           8
160  1 60   TSTSS   BSS   SENSW,F                                  5  0475  B 528 F             8
161  1 61   TSTOP   BCE   LTAPOP,23,2                              8  0480  B 591 023 2         8
162  1 62           BCE   LTAPOP,23,3                              8  0488  B 591 023 3         9
163  1 63           BCE   LTAPOP,23,6                              8  0496  B 591 023 6         9
164  1 64           BCE   LTAPOP,23,7                              8  0504  B 591 023 7         9
165  1 65           SW    LTAPSW#1                                  4  0512  , P25               9
166  1 66           B     START                                     4  0516  B |17               9
167  1 67   *
168  1 68   * OPTION TO PUNCH NEW SOURCE DECK
169  1 69   *
170  1 70   PNH4OP  SW    PNH4SW#1                                  4  0520  , P26              9
171  1 71           B     TSTLSW                                    4  0524  B |49             10
172  1 72   *
173  1 73   * TEST SENSE SWITCHES FOR OPTION
174  1 74   *
175  1 75   SENSW   LCA   @0@,23                                    7  0528  L P27 023          10
176  1 76           BSS   ADD1,B                                    5  0535  B 558 B            10
177  1 77   TSTSSC  BSS   ADD2,C                                    5  0540  B 569 C            10
178  1 78   TSTSSG  BSS   ADD4,G                                    5  0545  B 580 G            10
179  1 79   SSOUT   CW    23                                        4  0550  ) 023              10
180  1 80           B     TSTOP                                     4  0554  B 480              10
181  1 81   ADD1    A     @1@,23                                    7  0558  A P28 023          11
182  1 82           B     TSTSSC                                    4  0565  B 540              11
183  1 83   ADD2    A     @2@,23                                    7  0569  A P07 023          11
184  1 84           B     TSTSSG                                    4  0576  B 545              11
185  1 85   ADD4    A     @4@,23                                    7  0580  A P29 023          11
186  1 86           B     SSOUT                                     4  0587  B 550              11
187  1 87   *
188  1 88   * SET UP CLEAR STORAGE RECORD
189  1 89   *
190  1 90   LTAPOP  CS    PUNCH&80                                  4  0591  / 180              11
191  1 91           SW    GRPMRK                                    4  0595  , P06              12
192  1 92           LCA   GRPMRK,PUNCH&99                           7  0599  L P06 199          12
193  1 93           LCA   IDENT,PUNCH&79                           7  0606  L P18 179          12
194  1 94           LCA   @  @                                      4  0613  L P31              12
195  1 95           LCA   @B007@                                    4  0617  L P35              12
196  1 96           LCA   @)021@                                    4  0621  L P39              12
197  1 97           LCA   @B047L@                                   4  0625  L P44              12
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
198  1 98           LCA   @L%U1001R@                                4  0629  L P52               13
199  1 99           LCA   @.@                                       4  0633  L P53               13
200  2 00           LCA   BSPTU1                                    4  0637  L O93               13
201  2 01   *
202  2 02   * TEST OBJECT CORE SIZE
203  2 03   *
204  2 04           C     22,@3@                                    7  0641  C 022 P54           13
205  2 05           BE    IS4K                                      5  0648  B 747 S             13
206  2 06           BH    IS4K                                      5  0653  B 747 U             13
207  2 07           C     22,@6@                                    7  0658  C 022 P55           13
208  2 08           BL    IS4K                                      5  0665  B 747 T             14
209  2 09           LCA   @I0?@,PUNCH&44                           7  0670  L P58 144           14
210  2 10           LCA   @099@                                     4  0677  L P61               14
211  2 11           LCA   @B053@                                    4  0681  L P65               14
212  2 12           LCA   @M074099@                                4  0685  L P72               14
213  2 13           LCA   @)099@                                    4  0689  L P76               14
214  2 14           LCA   @B001/@                                   4  0693  L P81               14
215  2 15           LCA   @C004041@                                 4  0697  L P88               15
216  2 16           LCA   @#044004@                                 4  0701  L P95               15
217  2 17           LCA   @/I9I@                                    4  0705  L P99               15
218  2 18           BCE   BTSTRP,22,6                              8  0709  B 842 022 6         15
219  2 19           BCE   IS12K,22,5                              8  0717  B 736 022 5         15
220  2 20           MZ    ZONE-2,PUNCH&4                          7  0725  Y 337 104           15
221  2 21           B     BTSTRP                                    4  0732  B 842               15
222  2 22   IS12K   MZ    ZONE-1,PUNCH&4                          7  0736  Y 338 104           16
223  2 23           B     BTSTRP                                    4  0743  B 842               16
224  2 24   IS4K    LCA   @I0@,PUNCH&75                           7  0747  L Q01 175           16
225  2 25           LCA   @B053@,PUNCH&46                         7  0754  L P65 146           16
226  2 26           LCA   @M080099@                               4  0761  L Q08               16
227  2 27           LCA   @)099@                                    4  0765  L P76               16
228  2 28           LCA   @B001@                                   4  0769  L Q12               16
229  2 29           LCA   @B0320020@                              4  0773  L Q20               17
230  2 30           LCA   @)002@                                   4  0777  L Q24               17
231  2 31           LCA   @A075003@                               4  0781  L Q31               17
232  2 32           LCA   @,002@                                   4  0785  L Q35               17
233  2 33           LCA   @/I99@                                   4  0789  L Q39               17
234  2 34           SW    PUNCH&80                                4  0793  , 180               17
235  2 35           BCE   BTSTRP,22,3                              8  0797  B 842 022 3         17
236  2 36           MCW   @Z@,PUNCH&2                            7  0805  M Q40 102           18
237  2 37           BCE   BTSTRP,22,2                             8  0812  B 842 022 2         18
238  2 38           MCW   @T@,PUNCH&2                            7  0820  M Q41 102           18
239  2 39           BCE   BTSTRP,22,1                             8  0827  B 842 022 1         18
240  2 40           MCW   @I@,PUNCH&2                            7  0835  M Q42 102           18
241  2 41   *
242  2 42   * SET UP BOOTSTRAP RECORD
243  2 43   *
244  2 44   BTSTRP  B     WRITE1                                    4  0842  B !30               19
245  2 45           CW    PUNCH&99                                  4  0846  ) 199               19
246  2 46           LCA   GRPMRK,PUNCH&80                         7  0850  L P06 180           19
247  2 47           LCA   @ @,PUNCH&24                            7  0857  L Q43 124           19
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
248  2 48          LCA   @.020@                                    4  0864  L Q47               19
249  2 49          LCA   BER1                                      4  0868  L O80               19
250  2 50          LCA   RDREC                                     4  0872  L O88               19
251  2 51          LCA   @.@                                       4  0876  L P53               20
252  2 52          LCA   BSPTU1                                    4  0880  L O93               20
253  2 53          B     WRITE1                                    4  0884  B !30               20
254  2 54          CS    PUNCH&75                                  4  0888  / 175               20
255  2 55          LCA   @ @,PUNCH&35                             7  0892  L Q43 135           20
256  2 56          LCA   @B007@                                   4  0899  L P35               20
257  2 57          LCA   @N000@                                   4  0903  L Q51               20
258  2 58          LCA   @L      @                                4  0907  L Q58               21
259  2 59          LCA   BER1                                      4  0911  L O80               21
260  2 60          LCA   RDREC                                     4  0915  L O88               21
261  2 61          LCA   @.@                                       4  0919  L P53               21
262  2 62          LCA   BSPTU1                                    4  0923  L O93               21
263  2 63   *
264  2 64   * TEST PROCESSOR CORE SIZE
265  2 65   *
266  2 66          C     21,@3@                                    7  0927  C 021 P54           21
267  2 67          BE    START                                     5  0934  B |17 S             21
268  2 68          BH    START                                     5  0939  B |17 U             22
269  2 69          C     21,@6@                                    7  0944  C 021 P55           22
270  2 70          BL    START                                     5  0951  B |17 T             22
271  2 71          MN    21,SAVEZN#1                               7  0956  D 021 Q59           22
272  2 72          A     &3,SAVEZN                                 7  0963  A Q60 Q59           22
273  2 73          MN    SAVEZN,*&4                                7  0970  D Q59 980           22
274  2 74          MZ    ZONE,*&7                                  7  0977  Y 339 990           23
275  2 75          LCA   GRPMRK,GRPMRK                             7  0984  L P06 P06           23
276  2 76          CW    GRPMRK                                    4  0991  ) P06               23
277  2 77          MCW   @400@,KBLKNG                            7  0995  M Q63 P01           23
278  2 78          BCE   START,21,4                                8  1002  B |17 021 4         23
279  2 79          A     @400@,KBLKNG                              7  1010  A Q63 P01           24
280  2 80   *
281  2 81   * SET PARAMETERS
282  2 82   *
283  2 83   START BCE   PNH4OP,23,4                                8  1017  B 520 023 4         24
284  2 84          BCE   PNH4OP,23,5                               8  1025  B 520 023 5         24
285  2 85          BCE   PNH4OP,23,6                               8  1033  B 520 023 6         24
286  2 86          BCE   PNH4OP,23,7                               8  1041  B 520 023 7         24
287  2 87   TSTLSW BW    EOJOB,LTAPSW                              8  1049  V X81 P25 1         25
288  2 88          MCW   KBLKNG,BLKCT                             7  1057  M P01 P04           25
289  2 89          CS    80                                        4  1064  / 080               25
290  2 90          BW    SETINP,JOBSW                              8  1068  V |84 P19 1         25
291  2 91          RT    INTAPE,INPUT                              8  1076  M %U5 ?28 R         25
292  2 92   SETINP SW    IMAGE&23,IMAGE&57                         7  1084  , 023 057           26
293  2 93          SW    IMAGE&62,IMAGE&67                         7  1091  , 062 067           26
294  2 94          SW    IMAGE&68,IMAGE&71                         7  1098  , 068 071           26
295  2 95          SW    IMAGE&74,IMAGE&6                          7  1105  , 074 006           26
296  2 96          SW    IMAGE&1                                   4  1112  , 001               26
297  2 97          B     GET                                       4  1116  B !76               26
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
298  2 98   *
299  2 99   * ANALYZE RECORD TYPE
300  3 00   *
301  3 01   ANALYZ BCE   BYPASS,TYPE,%                            8  1120  B J59 075 %         27
302  3 02          BM    BYPASS,IMAGE&5                          8  1128  V J59 005 K         27
303  3 03          BCE   INSTR,TYPE,                            8  1136  B S22 075           27
304  3 04          BCE   DOJOB,TYPE,I                           8  1144  B S11 075 I         27
305  3 05          MN    TYPE,XR2                                7  1152  D 075 094           27
306  3 06          A     XR2                                     4  1159  A 094               28
307  3 07          A     XR2                                     4  1163  A 094               28
308  3 08          B     *&1&X2                                  4  1167  B /P1               28
309  3 09          B     DA                                      4  1171  B V85               28
310  3 10          B     CONST                                   4  1175  B S65               28
311  3 11          B     DSA                                     4  1179  B V59               28
312  3 12          B     EXEND                                   4  1183  B W82               28
313  3 13          B     BYPASS                                  4  1187  B J59               29
314  3 14          B     BYPASS                                  4  1191  B J59               29
315  3 15          B     BYPASS                                  4  1195  B J59               29
316  3 16          B     BYPASS                                  4  1199  B J59               29
317  3 17          B     XTRA                                    4  1203  B V34               29
318  3 18          B     BYPASS                                  4  1207  B J59               29
319  3 19   DOJOB  MCW   IMAGE&20,PUNCH&79                       7  1211  M 020 179           29
320  3 20          B     BYPASS                                  4  1218  B J59               30
321  3 21   *
322  3 22   * PROCESS INSTRUCTION
323  3 23   *
324  3 24   INSTR  MCW   DMOD,PUNCH&42                           7  1222  M 074 142           30
325  3 25          MCW                                           1  1229  M                   30
326  3 26          MCW                                           1  1230  M                   30
327  3 27          MCW                                           1  1231  M                   30
328  3 28          MCW   LABADD,CNVADD                          7  1232  M 061 ?01           30
329  3 29          A     COUNT,CNVADD                            7  1239  A 007 ?01           30
330  3 30          S     @1@,CNVADD                              7  1246  S P28 ?01           31
331  3 31   INSTXT B     SETLOC                                  4  1253  B J67               31
332  3 32          B     WRITE2                                  4  1257  B K64               31
333  3 33          B     BYPASS                                  4  1261  B J59               31
334  3 34   *
335  3 35   * PROCESS CONSTANTS
336  3 36   *
337  3 37   CONST  A     @00@,COUNT                              7  1265  A Q65 007           31
338  3 38          C     COUNT,@00@                              7  1272  C 007 Q65           31
339  3 39          BL    *&5                                     5  1279  B S88 T             31
340  3 40          B     BYPASS                                  4  1284  B J59               32
341  3 41          BCE   PCHCON,IMAGE&23,#                      8  1288  B T44 023 #         32
342  3 42          BWZ   PCHCON,IMAGE&4,B                       8  1296  V T44 004 B         32
343  3 43          MCW   IMAGE&53,HOLDDT-22                     7  1304  M 053 R26           32
344  3 44          BCE   ALPHA,IMAGE&23,@                       8  1311  B T23 023 @         32
345  3 45          B     PCHCON                                  4  1319  B T44               32
346  3 46   ALPHA  MCW   &HOLDDT-51,XR1                         7  1323  M Q68 089           33
347  3 47          A     COUNT,XR1                               7  1330  A 007 089           33
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
348  3 48          MCW   BLANK1#1,XXXX&X1                          7  1337  M Q69 0|0           33
349  3 49   PCHCON MCW   HOLDDT-20,PUNCH&66                       7  1344  M R28 166           33
350  3 50          MCW   LABADD,CNVADD                           7  1351  M 061 ?01           33
351  3 51          C     COUNT,@32@                              7  1358  C 007 Q71           34
352  3 52          BL    LARGE                                   5  1365  B T82 T             34
353  3 53          BCE   PRODC,TYPE,A                           8  1370  B U47 075 A         34
354  3 54          B     INSTXT                                  4  1378  B S53               34
355  3 55   *
356  3 56   * CONSTANT GREATER THAN 32 CHARACTERS
357  3 57   *
358  3 58   LARGE  S     @32@,COUNT                              7  1382  S Q71 007           34
359  3 59          S     COUNT,CNVADD                            7  1389  S 007 ?01           34
360  3 60          MCW   COUNT,HOLDCT#2                          7  1396  M 007 Q73           35
361  3 61          MCW   @32@,COUNT                             7  1403  M Q71 007           35
362  3 62          B     SETLOC                                  4  1410  B J67               35
363  3 63          BCE   LRGDC,TYPE,A                           8  1414  B U94 075 A         35
364  3 64   LRGXT  MCW   HOLDCT,COUNT                           7  1422  M Q73 007           35
365  3 65          MCW   HOLDDT,TEMP#20                         7  1429  M R48 Q93           36
366  3 66          B     WRITE2                                  4  1436  B K64               36
367  3 67          MCW   TEMP,PUNCH&54                           7  1440  M Q93 154           36
368  3 68   *
369  3 69   * PROCESS DC
370  3 70   *
371  3 71   PRODC  MCW   LABADD,CNVADD                           7  1447  M 061 ?01           36
372  3 72          S     COUNT,CNVADD                            7  1454  S 007 ?01           36
373  3 73          A     @1@,CNVADD                              7  1461  A P28 ?01           36
374  3 74          B     CNVRT                                   4  1468  B K11               37
375  3 75          MCW   CNVWK,PUNCH&30                         7  1472  M ?04 130           37
376  3 76          MCW   @)@                                     4  1479  M Q94               37
377  3 77          MCW   LABADD,CNVADD                           7  1483  M 061 ?01           37
378  3 78          B     INSTXT                                  4  1490  B S53               37
379  3 79   *
380  3 80   * DC GREATER THAN 32 CHARACTERS
381  3 81   *
382  3 82   LRGDC  MCW   LABADD,CNVADD                           7  1494  M 061 ?01           37
383  3 83          S     HOLDCT,CNVADD                           7  1501  S Q73 ?01           38
384  3 84          S     @31@,CNVADD                             7  1508  S Q96 ?01           38
385  3 85          B     CNVRT                                   4  1515  B K11               38
386  3 86          MCW   CNVWK,PUNCH&30                         7  1519  M ?04 130           38
387  3 87          MCW   @)@                                     4  1526  M Q94               38
388  3 88          B     LRGXT                                   4  1530  B U22               38
389  3 89   *
390  3 90   * EXTRA CARD FOR CONSTANT OVER 32 CHARACTERS
391  3 91   *
392  3 92   XTRA   BCE   BYPASS,IMAGE&21,                        8  1534  B J59 021           39
393  3 93          MCW   IMAGE&73,HOLDDT#52                      7  1542  M 073 R48           39
394  3 94          CHAIN 6                                                        MACRO
395                MCW                                           1  1549  M           GEN     39
396                MCW                                           1  1550  M           GEN     39
397                MCW                                           1  1551  M           GEN     39
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
398                 MCW                                             1  1552  M           GEN     39
399                 MCW                                             1  1553  M           GEN     39
400                 MCW                                             1  1554  M           GEN     40
401  3 95           B     BYPASS                                    4  1555  B J59               40
402  3 96   *
403  3 97   * PROCESS DSA
404  3 98   *
405  3 99   DSA     MCW   BOP,PUNCH&37                             7  1559  M 073 137           40
406  4 00           BCE   PRODC,TYPE,B                              8  1566  B U47 075 B         40
407  4 01           MCW   LABADD,CNVADD                           7  1574  M 061 ?01           40
408  4 02           B     INSTXT                                    4  1581  B S53               40
409  4 03   *
410  4 04   * PROCESS DEFINE AREA
411  4 05   *
412  4 06   DA      BCE   BYPASS,TYPE,!                           8  1585  B J59 075 !         40
413  4 07           BCE   HEADER,TYPE,0                           8  1593  B W24 075 0         41
414  4 08   *
415  4 09   * FIELD, FIELD REPEAT
416  4 10   *
417  4 11   FIELD   MCW   SUPADD,CNVADD                           7  1601  M 066 ?01           41
418  4 12           B     DARTN                                     4  1608  B W47               41
419  4 13           BCE   FIELD,TYPE,|                           8  1612  B W01 075 |         41
420  4 14           B     ANALYZ                                    4  1620  B /20               41
421  4 15   *
422  4 16   * HEADER, HEADER REPEAT
423  4 17   *
424  4 18   HEADER MCW   LABADD,CNVADD                           7  1624  M 061 ?01           41
425  4 19           B     DARTN                                     4  1631  B W47               42
426  4 20           BCE   HEADER,TYPE,|                           8  1635  B W24 075 |         42
427  4 21           B     ANALYZ                                    4  1643  B /20               42
428  4 22   *
429  4 23   * DA SUBROUTINE
430  4 24   *
431  4 25   DARTN   SBR   DAXT&3                                   4  1647  H W81               42
432  4 26           B     CNVRT                                     4  1651  B K11               42
433  4 27           MCW   CNVWK,PUNCH&26                          7  1655  M ?04 126           42
434  4 28           MCW   CNVWK                                     4  1662  M ?04               42
435  4 29           MCW   @,@                                       4  1666  M R49               43
436  4 30           B     WRITE2                                    4  1670  B K64               43
437  4 31           B     GET                                       4  1674  B !76               43
438  4 32   DAXT    B     XXXX                                      4  1678  B 000               43
439  4 33   *
440  4 34   * PROCESS EX, END
441  4 35   *
442  4 36   EXEND   BCE   END,TYPE,3                              8  1682  B X58 075 3         43
443  4 37           MCW   AOP,PUNCH&30                            7  1690  M 070 130           43
444  4 38           MCW   @B@                                     4  1697  M R50               43
445  4 39           MCW   @N000000@                               4  1701  M R57               44
446  4 40           B     WRITE2                                    4  1705  B K64               44
447  4 41           LCA   @ @,PUNCH&24                            7  1709  L Q43 124           44
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
448  4 42           LCA   @B007@                                    4  1716  L P35               44
449  4 43           B     GET                                       4  1720  B !76               44
450  4 44           BCE   ISJOB,TYPE,I                              8  1724  B X47 075 I         44
451  4 45   COMPAT  B     WRITE1                                    4  1732  B !30               44
452  4 46           LCA   @L      @,PUNCH&26                        7  1736  L R64 126           45
453  4 47           B     ANALYZ                                    4  1743  B /20               45
454  4 48   ISJOB   MCW   IMAGE&20,PUNCH&79                        7  1747  M 020 179           45
455  4 49           B     COMPAT                                    4  1754  B X32               45
456  4 50   *
457  4 51   * END
458  4 52   *
459  4 53   END     MCW   @/   080@,PUNCH&26                       7  1758  M R71 126           45
460  4 54           MCW   AOP,PUNCH&23                            7  1765  M 070 123           45
461  4 55           B     WRITE2                                    4  1772  B K64               46
462  4 56           WTM   OUTAPE                                    5  1776  U %U6 M             46
463  4 57   EOJOB   BW    PUNCH4,PNH4SW                             8  1781  V X93 P26 1         46
464  4 58           B     ENDJOB                                    4  1789  B !55               46
465  4 59   *
466  4 60   * PUNCH NEW SOURCE DECK
467  4 61   *
468  4 62   PUNCH4  CS    PUNCH&80                                  4  1793  / 180               46
469  4 63           MCW   @113@,LGTCK&6                           7  1797  M R74 O58           46
470  4 64           RT    4,PUNCH&1                                 8  1804  M %U4 101 R         47
471  4 65           B     CHKLGT                                    4  1812  B O37               47
472  4 66           BER   TPERR                                     5  1816  B M33 L             47
473  4 67           BCE   DOLTO,PUNCH&75,L                          8  1821  B Z54 175 L         47
474  4 68           BCE   PUNCH4,PUNCH&75,S                         8  1829  B X93 175 S         47
475  4 69           BCE   PUNCH4,PUNCH&75,C                         8  1837  B X93 175 C         48
476  4 70           BCE   PUNCH4,PUNCH&75,Z                         8  1845  B X93 175 Z         48
477  4 71           BCE   PUNCH4,PUNCH&75,Y                         8  1853  B X93 175 Y         48
478  4 72   BUMP    A     &1,SEQCT-1                                7  1861  A R75 O97           48
479  4 73           MCW   SEQCT,PUNCH&5                            7  1868  M O98 105           48
480  4 74           BCE   DOPCH,PUNCH&6,*                           8  1875  B Z13 106 *         49
481  4 75           MCW   BLANK4#4,PUNCH&15                        7  1883  M R79 115           49
482  4 76           C     PUNCH&18,@JOB@                            7  1890  C 118 P14           49
483  4 77           BU    DOPCH                                     5  1897  B Z13 /             49
484  4 78           MCW   BLANK4,PUNCH&11                          7  1902  M R79 111           49
485  4 79           MCW   BLANK4-2                                  4  1909  M R77               49
486  4 80   DOPCH   MCW   BLANK4-1,PUNCH&75                       7  1913  M R78 175           50
487  4 81           P                                               1  1920  4                   50
488  4 82           SS    4                                         2  1921  K 4                 50
489  4 83           C     PUNCH&18,@END@                            7  1923  C 118 R82           50
490  4 84           BU    PUNCH4                                    5  1930  B X93 /             50
491  4 85           BCE   PUNCH4,PUNCH&6,*                          8  1935  B X93 106 *         50
492  4 86           CS    PUNCH&80                                  4  1943  / 180               50
493  4 87           P                                               1  1947  4                   51
494  4 88           SS    8                                         2  1948  K 8                 51
495  4 89           B     ENDJOB                                    4  1950  B !55               51
496  4 90   DOLTO   MCW   @LTORG@,PUNCH&20                        7  1954  M R87 120           51
497  4 91           B     BUMP                                      4  1961  B Y61               51
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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
498  4 92           DCW   @ @                                           1  1965                      51
499  4 93   ENDF1   DCW   @}@                                          1  1966                      51
500  4 94           XFR   LIBRN                                                 B 000               52
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
501  4 95           JOB   1401 AUTOCODER-PASS 8-LOAD TAPE-LEFT MAIN -VERSION 3
502  4 96           ORG   2000                                                 2000
503  4 97   OUTOPN  DCW   @ @                                        1  2000                      55
504  4 98   SSOP    DCW   @B@                                       1  2001                      55
505  4 99           RTW   1,1                                       8  2002  L %U1 001 R         55
506  5 00           NOP   XXXX                                      4  2010  N 000               55
507  5 01           BER   TPERR                                     5  2014  B M33 L             55
508  5 02           CW    ENDF1,ENDF2                               7  2019  ) Z66 I98           55
509  5 03           B     INITLZ                                    4  2026  B 340               55
510  5 04   *
511  5 05   * WRITE CLEAR STORAGE AND BOOTSTRAP
512  5 06   *
513  5 07   WRITE1  SBR   WT1XT&3                                   4  2030  H !54              56
514  5 08           WTW   OUTAPE,OUTPUT                             8  2034  L %U6 101 W        56
515  5 09           NOP   XXXX                                      4  2042  N 000              56
516  5 10           BER   TPERR                                     5  2046  B M33 L            56
517  5 11   WT1XT   B     XXXX                                      4  2051  B 000              56
518  5 12   *
519  5 13   * GO BACK TO PASS E FOR EXTRA OUTPUT
520  5 14   *
521  5 15   ENDJOB  RTW   1,333                                     8  2055  L %U1 333 R        56
522  5 16           NOP   XXXX                                      4  2063  N 000              56
523  5 17           BER   TPERR                                     5  2067  B M33 L            57
524  5 18           B     MESSAG                                    4  2072  B 333              57
525  5 19   *
526  5 20   * RETRIEVE INPUT RECORD
527  5 21   *
528  5 22   GET     SBR   GETXT&3                                   4  2076  H J58              57
529  5 23           C     BLKCT,KBLKNG                              7  2080  C P04 P01          57
530  5 24           BU    NXTREC                                    5  2087  B J20 /            57
531  5 25           S     HOLDA                                     4  2092  S P05              57
532  5 26           MCW   &INPUT&13,LGTCK&6                        7  2096  M R90 O58          57
533  5 27           RT    INTAPE,INPUT                              8  2103  M %U5 ?28 R        58
534  5 28           B     CHKLGT                                    4  2111  B O37              58
535  5 29           BER   TPERR                                     5  2115  B M33 L            58
536  5 30   NXTREC  A     &80,BLKCT                                 7  2120  A R92 P04          58
537  5 31           MCW   BLKCT,XR3                                7  2127  M P04 099          58
538  5 32           MCW   INPUT-1&X3,IMAGE&80                      7  2134  M ?B7 080          58
539  5 33           CHAIN 8                                                                MACRO
540                 MCW                                           1  2141  M           GEN    58
541                 MCW                                           1  2142  M           GEN    59
542                 MCW                                           1  2143  M           GEN    59
543                 MCW                                           1  2144  M           GEN    59
544                 MCW                                           1  2145  M           GEN    59
545                 MCW                                           1  2146  M           GEN    59
546                 MCW                                           1  2147  M           GEN    59
547                 MCW                                           1  2148  M           GEN    59
548  5 34           S     XR3&1                                     4  2149  S 100              60
549  5 35           S                                               1  2153  S                  60
550  5 36           S                                               1  2154  S                  60
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
551  5 37   GETXT  B     XXXX                                      4  2155  B 000               60
552  5 38   *
553  5 39   * DO NEXT RECORD
554  5 40   *
555  5 41   BYPASS B     GET                                       4  2159  B !76               60
556  5 42          B     ANALYZ                                    4  2163  B /20               60
557  5 43   *
558  5 44   * SET ADDRESSES IN OUTPUT
559  5 45   *
560  5 46   SETLOC SBR   LOCXT&3                                   4  2167  H K10               60
561  5 47          B     CNVRT                                     4  2171  B K11               61
562  5 48          MCW   CNVWK,PUNCH&26                            7  2175  M ?04 126           61
563  5 49          ZA    &34,CNVADD                                7  2182  ? R94 ?01           61
564  5 50          A     COUNT,CNVADD                              7  2189  A 007 ?01           61
565  5 51          B     CNVRT                                     4  2196  B K11               61
566  5 52          MCW   CNVWK,PUNCH&23                            7  2200  M ?04 123           61
567  5 53   LOCXT  B     XXXX                                      4  2207  B 000               62
568  5 54   *
569  5 55   * CONVERT 5 TO 3 DIGIT ADDRESS
570  5 56   *
571  5 57   CNVRT  SBR   CNVXT&3                                   4  2211  H K63               62
572  5 58          BAV   *&1                                       5  2215  B K20 Z             62
573  5 59   ADDAGN A     &96,CNVADD-3                              7  2220  A R96 R98           62
574  5 60          BAV   ADDAGN                                    5  2227  B K20 Z             62
575  5 61          MZ    CNVADD-4,CNVADD#5                         7  2232  Y R97 ?01           62
576  5 62          MN    CNVADD-3,*&4                              7  2239  D R98 K49           62
577  5 63          MZ    ZONE,CNVADD-2                             7  2246  Y 339 R99           63
578  5 64          MCW   CNVADD,CNVWK#3                           7  2253  M ?01 ?04           63
579  5 65   CNVXT  B     XXXX                                      4  2260  B 000               63
580  5 66   *
581  5 67   * WRITE OUTPUT RECORDS
582  5 68   *
583  5 69   WRITE2 SBR   WT2XT&3                                   4  2264  H L30               63
584  5 70          BCE   DOGM,PUNCH&35,}                          8  2268  B L31 135 }         63
585  5 71          WTW   OUTAPE,OUTPUT&19                         8  2276  L %U6 120 W         63
586  5 72          NOP   XXXX                                      4  2284  N 000               64
587  5 73          BER   TPERR                                     5  2288  B M33 L             64
588  5 74          NOP                                           1  2293  N                   64
589  5 75   CLEAR  MCW   BLANK1,PUNCH&75                          7  2294  M Q69 175           64
590  5 76          MCW   PUNCH&75                                  4  2301  M 175               64
591  5 77          MCW   BLANK1,HOLDDT                           7  2305  M Q69 R48           64
592  5 78          MCW   HOLDDT                                    4  2312  M R48               64
593  5 79          MCW   @N000@,PUNCH&30                         7  2316  M Q51 130           65
594  5 80          MCW   @L      @                                4  2323  M ?11               65
595  5 81   WT2XT  B     XXXX                                      4  2327  B 000               65
596  5 82   DOGM   CS    299                                       4  2331  / 299               65
597  5 83          LCA   PUNCH&80,280                            7  2335  L 180 280           65
598  5 84          LCA                                           1  2342  L                   65
599  5 85          MCW   PUNCH&66,274                            7  2343  M 166 274           65
600  5 86          LCA   @ @                                     4  2350  L Q43               66
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
601  5 87           LCA   @B007@                             4  2354  L P35               66
602  5 88           LCA   @)043043@                         4  2358  L ?18               66
603  5 89           LCA   PUNCH&26                           4  2362  L 126               66
604  5 90           LCA   @,043@                             4  2366  L ?22               66
605  5 91           SW    225,235                            7  2370  , 225 235           66
606  5 92           A     &8,227                             7  2377  A ?23 227           66
607  5 93           CW    225                                4  2384  ) 225               67
608  5 94           BCE   WTGM,PUNCH&27,N                    8  2388  B M03 127 N         67
609  5 95           MCW   PUNCH&30,237                       7  2396  M 130 237           67
610  5 96  WTGM     CW    235                                4  2403  ) 235               67
611  5 97           WTW   OUTAPE,220                        8  2407  L %U6 220 W         67
612  5 98           NOP   XXXX                               4  2415  N 000               67
613  5 99           BER   TPERR                              5  2419  B M33 L             68
614  6 00           NOP                                      1  2424  N                   68
615  6 01           CW    280                                4  2425  ) 280               68
616  6 02           B     CLEAR                              4  2429  B K94               68
617  6 03  *
618  6 04  * TAPE REDUNDANCY ROUTINE
619  6 05  *
620  6 06  TPERR  SBR   XR2                                4  2433  H 094               68
621  6 07           SBR   REDXT&3                            4  2437  H N05               68
622  6 08           MZ    &9,XR2                             7  2441  Y ?24 094           68
623  6 09           MCW   4000-10&X2,TPINST&7                7  2448  M IR0 M96           69
624  6 10           MN    TPINST&3,BSP1&3                    7  2455  D M92 M72           69
625  6 11           MCW   TPINST&7,INST2&7                   7  2462  M M96 O05           69
626  6 12  BSP1     BSP   INITAP                            5  2469  U %U0 B             69
627  6 13           BCE   WRTRED,TPINST&7,W                  8  2474  B N78 M96 W         69
628  6 14           MCW   &9,READCT#1                        7  2482  M ?24 ?25           70
629  6 15  TPINST   RT    INITAP,XXXX                        8  2489  M %U0 000 R         70
630  6 16           BER   RDRERR                             5  2497  B N06 L             70
631  6 17  REDXT    B     XXXX                               4  2502  B 000               70
632  6 18  RDRERR   MN    TPINST&3,BSP2&3                    7  2506  D M92 N16           70
633  6 19  BSP2     BSP   INITAP                            5  2513  U %U0 B             70
634  6 20           S     &1,READCT                          7  2518  S R75 ?25           71
635  6 21           BWZ   TPINST,READCT,B                   8  2525  V M89 ?25 B         71
636  6 22           MN    TPINST&3,TPHALT&6                  7  2533  D M92 N46           71
637  6 23  TPHALT   H     XXXX,890                           7  2540  . 000 890           71
638  6 24           MCW   TPINST&7,*&8                       7  2547  M M96 N61           71
639  6 25           RT    INITAP,XXXX                        8  2554  M %U0 000 R         72
640  6 26           BSS   BSP1,E                            5  2562  B M69 E             72
641  6 27           H     XXXX,811                           7  2567  . 000 811           72
642  6 28           B     REDXT                              4  2574  B N02               72
643  6 29  WRTRED   SKP   1                                  5  2578  U %U1 E             72
644  6 30           BCE   SUBCTR,WRTCTR-1,5                  8  2583  B O15 ?26 5         72
645  6 31           A     &1,WRTCTR#2                        7  2591  A R75 ?27           73
646  6 32  INST2    WT    INITAP,XXXX                        8  2598  M %U0 000 W         73
647  6 33           BER   BSP1                               5  2606  B M69 L             73
648  6 34           B     REDXT                              4  2611  B N02               73
649  6 35  SUBCTR   S     WRTCTR                             4  2615  S ?27               73
650  6 36           MN    TPINST&3,*&7                       7  2619  D M92 O32           73
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
651  6 37          H     XXXX,860                            7  2626  . 000 860           74
652  6 38          B     INST2                               4  2633  B N98               74
653  6 39   *
654  6 40   * CHECK FOR SHORT RECORD
655  6 41   *
656  6 42   CHKLGT SBR   XR2                                 4  2637  H 094               74
657  6 43          SBR   LGTXT&3                             4  2641  H O75               74
658  6 44          MZ    &9,XR2                              7  2645  Y ?24 094           74
659  6 45   LGTCK  BCE   4000-12&X2,XXXX,}                   8  2652  B IQ8 000 }         74
660  6 46          CHAIN 12                                                 MACRO
661                BCE                                       1  2660  B                   GEN     74
662                BCE                                       1  2661  B                   GEN     75
663                BCE                                       1  2662  B                   GEN     75
664                BCE                                       1  2663  B                   GEN     75
665                BCE                                       1  2664  B                   GEN     75
666                BCE                                       1  2665  B                   GEN     75
667                BCE                                       1  2666  B                   GEN     75
668                BCE                                       1  2667  B                   GEN     75
669                BCE                                       1  2668  B                   GEN     76
670                BCE                                       1  2669  B                   GEN     76
671                BCE                                       1  2670  B                   GEN     76
672                BCE                                       1  2671  B                   GEN     76
673  6 47   LGTXT  B     XXXX                                4  2672  B 000               76
674  6 48   BER1   DCW   @B001L@                             5  2680                      76
675  6 49   RDREC  DCW   @L%U1020R@                          8  2688                      76
676  6 50   BSPTU1 DCW   @U%U1B@                            5  2693                      77
677  6 51   SEQCT  DCW   @0100 @                            5  2698                      77
678  6 52   KBLKNG DCW   080                                 3  2701                      77
679  6 53   HOLDA  DCW   &0000                              4  2705                      77
680  6 54   BLKCT  EQU   HOLDA-1                                2704
681  6 55   GRPMRK DC    @}@                                 1  2706                      77
682  6 56          LTORG *                                                2707
                   DCW   @2@                                 1  2707                LIT     77
                         @7@                                 1  2708                LIT     77
                         @013@                               3  2711                LIT     77
                         @JOB@                               3  2714                LIT     78
       152  IDENT        #04                                 4  2718                AREA    78
       153  JOBSW        #01                                 1  2719                AREA    78
                         @CTL@                               3  2722                LIT     78
                         @33@                                2  2724                LIT     78
       165  LTAPSW       #01                                 1  2725                AREA    78
       170  PNH4SW       #01                                 1  2726                AREA    78
                         @0@                                 1  2727                LIT     79
                         @1@                                 1  2728                LIT     79
                         @4@                                 1  2729                LIT     79
                         @  @                                2  2731                LIT     79
                         @B007@                              4  2735                LIT     79
                         @)021@                              4  2739                LIT     79
       197               @B047L@                             5  2744                LIT     79
       198               @L%U1001R@                          8  2752                LIT     80
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					@.@		1	2753		LIT	80
					@3@		1	2754		LIT	80
					@6@		1	2755		LIT	80
					@IO?@		3	2758		LIT	80
					@099@		3	2761		LIT	80
					@B053@		4	2765		LIT	80
		212			@M074099@		7	2772		LIT	81
					@)099@		4	2776		LIT	81
		214			@B001/@		5	2781		LIT	81
		215			@C004041@		7	2788		LIT	81
		216			@#044004@		7	2795		LIT	81
					@/I9I@		4	2799		LIT	81
					@IO@		2	2801		LIT	81
		226			@M080099@		7	2808		LIT	82
					@B001@		4	2812		LIT	82
		229			@B0320020@		8	2820		LIT	82
					@)002@		4	2824		LIT	82
		231			@A075003@		7	2831		LIT	82
					@,002@		4	2835		LIT	82
					@/I99@		4	2839		LIT	82
					@Z@		1	2840		LIT	83
					@T@		1	2841		LIT	83
					@I@		1	2842		LIT	83
					@ @		1	2843		LIT	83
					@.020@		4	2847		LIT	83
					@N000@		4	2851		LIT	83
		258			@L @		7	2858		LIT	83
		271	SAVEZN		#01		1	2859		AREA	84
					&3		1	2860		LIT	84
					@400@		3	2863		LIT	84
					@00@		2	2865		LIT	84
		346			&HOLDDT-51		3	2868	Q97	ADCON	84
		348	BLANK1		#01		1	2869		AREA	84
					@32@		2	2871		LIT	84
		360	HOLDCT		#02		2	2873		AREA	85
		365	TEMP		#20		20	2893		AREA	85
					@)@		1	2894		LIT	85
					@31@		2	2896		LIT	85
		393	HOLDDT		#52		52	2948		AREA	87
					@,@		1	2949		LIT	87
					@B@		1	2950		LIT	87
		445			@N000000@		7	2957		LIT	87
		452			@L @		7	2964		LIT	87
		459			@/ 080@		7	2971		LIT	88
					@113@		3	2974		LIT	88
					&1		1	2975		LIT	88
		481	BLANK4		#04		4	2979		AREA	88
					@END@		3	2982		LIT	88
		496			@LTORG@		5	2987		LIT	88
		532			&INPUT&13		3	2990	?41	ADCON	88

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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
                         &80                                         2  2992              LIT     89
                         &34                                         2  2994              LIT     89
                         &96                                         2  2996              LIT     89
       575  CNVADD       #05                                         5  3001              AREA    89
       578  CNVWK        #03                                         3  3004              AREA    89
       594               @L      @                                   7  3011              LIT     89
       602               @)043043@                                   7  3018              LIT     89
                         @,043@                                      4  3022              LIT     90
                         &8                                          1  3023              LIT     90
                         &9                                          1  3024              LIT     90
       628  READCT       #01                                         1  3025              AREA    90
       645  WRTCTR       #02                                         2  3027              AREA    90
683  6 57   *
684  6 58   * INPUT AREA
685  6 59   *
686  6 60   INPUT  EQU   *&1                                           3028
687  6 61   ENDF2  EQU   3998                                         3998
688  6 62   3998   DCW   @}@                                         1  3998                        91
689  6 63          XFR   LIBRN                                             B 000                   92
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
690  6 64           JOB   1401 AUTOCODER-PASS 8 EXTRA OUTPUT OVERLAY-VERSION 3
691  6 65           ORG   333                                                      0333
692  6 66   *
693  6 67   * PRINT END OF JOB MESSAGES
694  6 68   *
695  6 69   MESSAG  CC    1                                                 2  0333  F 1                95
696  6 70           CS    332                                               4  0335  / 332              95
697  6 71           CS                                                      1  0339  /                  95
698  6 72           MCW   @END OF ASSEMBLY@,PRINT&15                        7  0340  M 696 215          95
699  6 73           W                                                       1  0347  2                  95
700  6 74           CC    K                                                 2  0348  F K                95
701  6 75           MCW   @IF EXTRA OUTPUT DESIRED, SET SENSE@,PRINT&34     7  0350  M 730 234          95
702  6 76           MCW   @SWITCH F ON, AND@,PRINT&51                       7  0357  M 746 251          96
703  6 77           W                                                       1  0364  2                  96
704  6 78           CC    J                                                 2  0365  F J                96
705  6 79           CS    PRINT&71                                          4  0367  / 271              96
706  6 80           MCW   @B ON FOR CONDENSED CARDS@,PRINT&24                7  0371  M 770 224          96
707  6 81           W                                                       1  0378  2                  96
708  6 82           MCW   @C ON FOR LOADABLE TAPE 6@,PRINT&24               7  0379  M 794 224          96
709  6 83           W                                                       1  0386  2                  97
710  6 84           MCW   @D ON FOR LISTING TAPE  3@,PRINT&24               7  0387  M 818 224          97
711  6 85           W                                                       1  0394  2                  97
712  6 86           MCW   @E ON TO SUPPRESS LISTING@,PRINT&24               7  0395  M 842 224          97
713  6 87           W                                                       1  0402  2                  97
714  6 88           MCW   @G ON FOR NEW SOURCE DECK@,PRINT&24               7  0403  M 866 224          97
715  6 89           W                                                       1  0410  2                  97
716  6 90           CC    J                                                 2  0411  F J                98
717  6 91           CS    PRINT&24                                          4  0413  / 224              98
718  6 92           MCW   @AND PRESS START@,PRINT&15                       7  0417  M 881 215          98
719  6 93           W                                                       1  0424  2                  98
720  6 94           CC    K                                                 2  0425  F K                98
721  6 95           MCW   @IF NO EXTRA OUTPUT DESIRED, PRESS START@,PRINT&39  7  0427  M 920 239       98
722  6 96           W                                                       1  0434  2                  98
723  6 97           CC    1                                                 2  0435  F 1                99
724  6 98           CW    GRPMRK                                            4  0437  ) P06              99
725  6 99           H     XXXX,880                                          7  0441  . 000 880          99
726  7 00           BSS   GOTOE,F                                          5  0448  B 530 F            99
727  7 01           CS    PRINT&39                                          4  0453  / 239              99
728  7 02           MCW   @END OF JOB@,PRINT&10                            7  0457  M 930 210          99
729  7 03           W                                                       1  0464  2                  99
730  7 04           CC    K                                                 2  0465  F K               100
731  7 05           MCW   @INPUT FOR RE-ASSEMBLY ON TAPE UNIT 4@,PRINT&36   7  0467  M 966 236         100
732  7 06           W                                                       1  0474  2                 100
733  7 07           RWD   1                                                 5  0475  U %U1 R           100
734  7 08           RWD   4                                                 5  0480  U %U4 R           100
735  7 09           RWD   5                                                 5  0485  U %U5 R           100
736  7 10           RWD   6                                                 5  0490  U %U6 R           100
737  7 11           BW    FINAL,LTAPSW                                      8  0495  V 517 P25 1       101
738  7 12           CS    236                                               4  0503  / 236             101
739  7 13           MCW   @LOADABLE TAPE ON TAPE UNIT 6@,PRINT&28           7  0507  M 994 228         101
```

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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
740  7 14          CC    K                                          2  0514  F K               101
741  7 15          W                                                1  0516  2                 101
742  7 16  FINAL   CC    1                                          2  0517  F 1               101
743  7 17          H     XXXX,889                                   7  0519  . 000 889         101
744  7 18          B     FINAL&2                                    4  0526  B 519             102
745  7 19  GOTOE   CW    ENDF2,ENDF3                                7  0530  ) I98 998         102
746  7 20          CW    INPUT&80                                   4  0537  ) A08             102
747  7 21          CS    PUNCH&99                                   4  0541  / 199             102
748  7 22          BSP   1                                          5  0545  U %U1 B           102
749  7 23          BSP   1                                          5  0550  U %U1 B           102
750  7 24          BSP   1                                          5  0555  U %U1 B           102
751  7 25          BSP   1                                          5  0560  U %U1 B           103
752  7 26          BSP   1                                          5  0565  U %U1 B           103
753  7 27          BSP   1                                          5  0570  U %U1 B           103
754  7 28          BSP   1                                          5  0575  U %U1 B           103
755  7 29          BSP   1                                          5  0580  U %U1 B           103
756  7 30          RTW   1,PASSE                                    8  0585  L %U1 Z00 R       103
757  7 31          BER   TPERR2                                     5  0593  B 602 L           103
758  7 32          B     PASSE&1                                    4  0598  B Z01             104
759  7 33  TPERR2  MCW   &9,READC#1                                 7  0602  M 995 996         104
760  7 34          BSP   1                                          5  0609  U %U1 B           104
761  7 35  RETRY   RTW   1,PASSE                                    8  0614  L %U1 Z00 R       104
762  7 36          BER   AGAIN                                      5  0622  B 631 L           104
763  7 37          B     PASSE&1                                    4  0627  B Z01             104
764  7 38  AGAIN   BSP   1                                          5  0631  U %U1 B           104
765  7 39          S     &1,READC                                   7  0636  S 997 996         105
766  7 40          BWZ   RETRY,READC,B                             8  0643  V 614 996 B       105
767  7 41          H     XXXX,891                                   7  0651  . 000 891         105
768  7 42          RTW   1,PASSE                                    8  0658  L %U1 Z00 R       105
769  7 43          BSS   TPERR2,E                                   5  0666  B 602 E           105
770  7 44          H     XXXX,812                                   7  0671  . 000 812         106
771  7 45          B     PASSE&1                                    4  0678  B Z01             106
772  7 46          LTORG *                                                  0682
       698         DCW   @END OF ASSEMBLY@                         15  0696            LIT   106
       701               @IF EXTRA OUTPUT DESIRED, SET SENSE@      34  0730            LIT   107
       702               @SWITCH F ON, AND@                        16  0746            LIT   108
       706               @B ON FOR CONDENSED CARDS@                24  0770            LIT   109
       708               @C ON FOR LOADABLE TAPE 6@                24  0794            LIT   110
       710               @D ON FOR LISTING TAPE  3@                24  0818            LIT   111
       712               @E ON TO SUPPRESS LISTING@                24  0842            LIT   112
       714               @G ON FOR NEW SOURCE DECK@                24  0866            LIT   113
       718               @AND PRESS START@                         15  0881            LIT   113
       721               @IF NO EXTRA OUTPUT DESIRED, PRESS START@ 39  0920            LIT   114
       728               @END OF JOB@                              10  0930            LIT   115
       731               @INPUT FOR RE-ASSEMBLY ON TAPE UNIT 4@    36  0966            LIT   116
       739               @LOADABLE TAPE ON TAPE UNIT 6@            28  0994            LIT   117
                         &9                                         1  0995            LIT   117
       759  READC        #01                                        1  0996            AREA  117
                         &1                                         1  0997            LIT   117
773  7 47  ENDF3   DCW   @}@                                        1  0998                  117
```

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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
774  7 48   PASSE  EQU   1900                                            1900
775  7 49          EX    LIBRN                                             B 000              118
776  7 50          END   LIBRN                                             / 000 080          121
```

1401 AUTOCODER SYSTEM DECK PUNCHED