```
CLEAR STORAGE 1     ,008015,022026,030037,044,049,053053N000000N00001026                                  1
CLEAR STORAGE 2     L068116,105106,110117B101/I9I#071029C029056B026/B001/0991,001/001117I0?                2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039             ,0010011040                3

                         FORTRAN COMPILER -- PHASES 00-02                                    PAGE    1

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

 101               JOB   FORTRAN COMPILER -- PHASES 00-02
 102               CTL   6611
 103         *
 104         * SNAPSHOT, SYSTEM MONITOR, AND LOADER PHASE.
 105         *
 106         * READ AND STORE THE SOURCE PROGRAM, IN REVERSE ORDER, STARTING
 107         * AT THE TOP OF CORE, WITH BLANKS REMOVED EXCEPT WITHIN
 108         * HOLLERITH FIELDS IN FORMAT STATEMENTS.  EACH STATEMENT BEGINS
 109         * WITH 000.  FORMAT STATEMENTS THEN HAVE F, WHILE OTHERS HAVE R.
 110         * THEN THE LABEL, IF ANY, FOLLOWED BY A COLON.  THE END OF EACH
 111         * STATEMENT IS MARKED BY A GROUP MARK WITH A WORD MARK.  AFTER
 112         * THE LAST CARD, A STOP STATEMENT IS INSERTED.
 113         *
 114               ORG   1                                                          0001
 115         *
 116         * STARTS HERE IF BOOTED FROM TAPE
 117         *
 118      1  START  BER   LDERR      BOOT ERROR?                                5  0001  B 010 L              4
 119      6         B     BEGINN     NO, START UP                               4  0006  B 838                4
 120     10  LDERR  H     LDERR                                                 4  0010  . 010                4
 121     39         DCW   @0                        @                          26  0039                       4
 122         *
 123         * LEFT OVER FROM THE REST OF THE OVERLAY CARD
 124         *
 125     40         NOP   0,0                                                   7  0040  N 000 000            5
 126     47         SW    40,40                                                 7  0047  , 040 040            5
 127     54         SW    40,40                                                 7  0054  , 040 040            5
 128     61         SW    40,40                                                 7  0061  , 040 040            5
 129     68         B     BEGINN                                                4  0068  B 838                5
 130     80         DCW   @0009750023@                                          9  0080                       6
 131         *
 132     86         DC    @      @                                              6  0086                       6
 133     89  X1     DCW   @000@                                                 3  0089                       6
 134         XXXXX1 EQU   X1     FOR USE IN SFX REGIONS                          0089
 135     91         DC    @00@                                                  2  0091                       6
 136     94  X2     DCW   @000@                                                 3  0094                       6
 137         XXXXX2 EQU   X2     FOR USE IN SFX REGIONS                          0094
 138     96         DC    @00@                                                  2  0096                       6
 139     99  X3     DCW   @000@                                                 3  0099                       6
 140         XXXXX3 EQU   X3     FOR USE IN SFX REGIONS                          0099
 141    104         DC    @0    @                                               5  0104                       6
 142    110  PHASID DCW   @LOADER@  PHASE ID, FOR SNAPSHOT                       6  0110                       6
 143    111         DCW   #1  WM CLEARED IF DO STATEMENT APPEARS                1  0111                       7
 144    112         DCW   #1  WM CLEARED IF DO STATEMENT APPEARS                1  0112                       7
 145    113         DCW   #1  WM CLEARED IF DO STATEMENT APPEARS                1  0113                       7
 146    114         DCW   #1  WM CLEARED WHEN AN I/O LIST OF DO IS PROCESSED    1  0114                       7
 147    115         DCW   #1  WM CLEARED IF I/O LIST AND NOT LIMITED FORMAT     1  0115                       7
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
148    116  SUBSCR DCW   #1  WM CLEARED IF SUBSCRIPT CODE NEEDED                1  0116                      7
149    117  SERIES DCW   #1  NEED SERIES ROUTINE IF NO WM                       1  0117                      7
150    118  SINCOS DCW   #1  SAW SINF OR COSF IF NO WM                          1  0118                      8
151    119  LOGF   DCW   #1  SAW LOGF IF NO WM                                 1  0119                      8
152    120  EXPF   DCW   #1  SAW EXPF IF NO WM                                 1  0120                      8
153    121         DCW   #1  SAW ATANF IF NO WM                                1  0121                      8
154    122  SAWABS DCW   #1  SAW ABSF IF NO WM                                 1  0122                      8
155    123  SAWNEG DCW   #1  SAW NEGATION OPERATOR (UNARY MINUS) IF NO WM       1  0123                      8
156    124  XFIXF  DCW   #1  SAW XFIXF IF NO WM                                1  0124                      8
157    125  FLOATF DCW   #1  SAW FLOATF IF NO WM                               1  0125                      9
158    126         DCW   #1  SAW SQRTF IF NO WM                                1  0126                      9
159    127         DCW   #1  SAW USER FUNCTION R IF NO WM                      1  0127                      9
160    128         DCW   #1  SAW USER FUNCTION U IF NO WM                      1  0128                      9
161    129         DCW   #1  SAW USER FUNCTION P IF NO WM                      1  0129                      9
162    130         DCW   #1  SAW USER FUNCTION W IF NO WM                      1  0130                      9
163    131         DCW   #1  SAW USER FUNCTION Y IF NO WM                      1  0131                      9
164    132         DCW   #1  SAW USER FUNCTION Z IF NO WM                      1  0132                     10
165    133         DCW   #1  SAW USER FUNCTION J IF NO WM                      1  0133                     10
166    134         DCW   #1  SAW USER FUNCTION K IF NO WM                      1  0134                     10
167    135         DCW   #1  SAW USER FUNCTION L IF NO WM                      1  0135                     10
168    136         DCW   #1  SAW USER FUNCTION M IF NO WM                      1  0136                     10
169    137         DCW   #1  SAW USER FUNCTION D IF NO WM                      1  0137                     10
170    138         DCW   #1  SAW USER FUNCTION H IF NO WM                      1  0138                     10
171    139         DCW   #1  SAW XLINKF IF NO WM                               1  0139                     11
172    142  NEGAR2 DCW   #3  LOOKS LIKE NEGARY -- SEE PHASE 20                 3  0142                     11
173    145  TBLBOT DCW   #3  ONE BELOW NUMBERS, FORMATS, I/O LISTS              3  0145                     11
174    148  SEQTAB DCW   #3  BOTTOM OF SEQUENCE NUMBER TABLE - 2               3  0148                     11
175    151  DOCNT  DCW   #3  COUNT OF DO STATEMENTS                            3  0151                     11
176    154  BOTFMT DCW   #3  BOTTOM OF FORMAT STRINGS OR NUMBER TABLE - 1      3  0154                     11
177    157  NEGAR3 DCW   #3  LOOKS LIKE NEGARY -- SEE PHASE 20                 3  0157                     11
178    160  ARYSIZ DCW   #3  TOTAL ARRAY SIZE & 2                              3  0160                     12
179    163  NEGARY DCW   #3  16000 - ARYSIZ                                    3  0163                     12
180    180         DC    #17                                                 17  0180                     12
181    183  NSTMTS DCW   #3  NUMBER OF STATEMENTS, INCLUDING GENERATED STOP    3  0183                     12
182    184  GLOBER DC    #1  GLOBAL ERROR FLAG -- WM MEANS ERROR               1  0184                     12
183    185  GOTXL  DCW   #1  XLINKF WAS REFERENCED IF NO WM                     1  0185                     12
184    188  RELTAB DCW   #3  RELOCATABLE FUNCTION TABLE ENTRY ADDRESSES         3  0188                     12
185    191  SUBENT DCW   #3  ENTRY TO SUBSCRIPT ROUTINE                        3  0191                     12
186    194  ARYTOP DCW   #3  TOP OF ARRAYS IN OBJECT CODE                      3  0194                     12
187    195         DC    #1                                                  1  0195                     12
188    199         DCW   @V3M4@                                              4  0199                     13
189                ORG   333                                                          0333
190         *
191         * SNAPSHOT ROUTINE
192         *
193                SFX   S                                                 S
194    333  SNAPSH SBR   EXIT&3                                            S   4  0333  H 567              14
195    337         SBR   SXX&6                                             S   4  0337  H 408              14
196    341         MCW   KZ3,ADR5-2  START FIVE-DIGIT ADDRESS AT ZERO      S   7  0341  M 661 656          14
197    348         MCW   XXXXX3,SX3&6                                      S   7  0348  M 099 415          14
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

198    355         MCW   XXXXX1,SX1&6                               S   7  0355  M 089 422           14
199    362         SBR   XXXXX1,1                                   S   7  0362  H 089 001           14
200    369         SBR   XXXXX3,202                                 S   7  0369  H 099 202           15
201    376         CS    332                                        S   4  0376  / 332              15
202    380         CS                                               S   1  0380  /                  15
203    381         MCW   PHASID,210                                 S   7  0381  M 110 210           15
204    388         BSS   SKIP,F                                     S   5  0388  B 621 F             15
205        *
206        * PRINT A HEADER
207        *
208    393         CC    1                                          S   2  0393  F 1                15
209    395         MCW   XXXXX2,250                                 S   7  0395  M 094 250           15
210    402  SXX    SBR   216,0       RETURN ADDRESS WAS STORED IN B S   7  0402  H 216 000           16
211    409  SX3    SBR   256,0       X3 WAS STORED IN B             S   7  0409  H 256 000           16
212    416  SX1    SBR   244,0       X1 WAS STORED IN B             S   7  0416  H 244 000           16
213    423         W                                                S   1  0423  2                  16
214    424         CC    K                                          S   2  0424  F K                16
215    426         ZA    KP2,W2A                                    S   7  0426  ? 662 664           16
216    433  CLEARH CS    332                                        S   4  0433  / 332              16
217    437         CS                                               S   1  0437  /                  17
218    438         CC    J                                          S   2  0438  F J                17
219    440         MCW   ADR5,306    FIVE-DIGIT ADDRESS             S   7  0440  M 658 306           17
220    447         MCW                                              S   1  0447  M                  17
221    448         SBR   LOOP&6                                     S   4  0448  H 465              17
222    452         MCW   K9,W2B-1                                   S   7  0452  M 665 668           17
223    459  LOOP   MCW   W2B-1,000                                  S   7  0459  M 668 000           17
224    466         MCW   DOTS                                       S   4  0466  M 651              18
225    470         SBR   LOOP&6                                     S   4  0470  H 465              18
226    474         A     KM10,W2B    ADD I0 = -10                   S   7  0474  A 667 669           18
227    481         BWZ   LOOP,W2B-1,2  NO ZONE IN COUNTER HIGH DIGIT? S  8  0481  V 459 668 2         18
228    489         A     KP1,ADR5-2  BUMP HUNDREDS DIGIT OF ADDRESS S   7  0489  A 670 656           18
229    496         W                                                S   1  0496  2                  18
230    497  GET    SW    0&X3        MOVE DATA AND WM TO PRINT AREA S   4  0497  , 0?0              18
231    501         MCW   0&X1,0&X3                                  S   7  0501  M 0|0 0?0           19
232    508         BW    DOWM,0&X1   SKIP CLEARING PRINT AREA WM    S   8  0508  V 520 0|0 1         19
233    516         CW    0&X3                                       S   4  0516  ) 0?0              19
234    520  DOWM   C     XXXXX1,TOPCOR  DONE?                       S   7  0520  C 089 688           19
235    527         BU    CONT        NO                             S   5  0527  B 568 /            19
236    532         W                                                S   1  0532  2                  19
237    533         WM                                               S   2  0533  2 )                19
238    535  RX1    MCW   SX1&6,XXXXX1   RESTORE INDEX REGS          S   7  0535  M 422 089           20
239    542         MCW   SX3&6,XXXXX3                               S   7  0542  M 415 099           20
240    549         CS    332                                        S   4  0549  / 332              20
241    553         CS                                               S   1  0553  /                  20
242    554         BSS   HALT,G                                     S   5  0554  B 563 G             20
243    559         B     EXIT                                       S   4  0559  B 564              20
244    563  HALT   H                                                S   1  0563  .                  20
245    564  EXIT   B     0-0                                        S   4  0564  B 000              21
246    568  CONT   SBR   XXXXX1,1&X1                                S   7  0568  H 089 0|1           21
247    575         BCE   BUMP3,XXXXX3-2,2                          S   8  0575  B 632 097 2         21
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
248    583         SBR   XXXXX3,201                                         S   7  0583  H 099 201          21
249    590         W                                                        S   1  0590  2                  21
250    591         WM                                                       S   2  0591  2 )                21
251    593         A     KP1,W2A                                            S   7  0593  A 670 664          21
252    600         C     W2A,KP15                                           S   7  0600  C 664 672          22
253    607         BU    CLEARH                                             S   5  0607  B 433 /            22
254    612         S     W2A                                                S   4  0612  S 664              22
255    616         CCB   CLEARH,1                                          S   5  0616  F 433 1            22
256    621  SKIP   MCW   XQTD,220                                           S   7  0621  M 680 220          22
257    628         W     RX1                                                S   4  0628  2 535              22
258    632  BUMP3  A     KP1,XXXXX3                                         S   7  0632  A 670 099          22
259    639         B     GET                                                S   4  0639  B 497              23
260    651  DOTS   DCW   @9........@                                        S   9  0651                     23
261    653         DCW   @9-@                                              S   2  0653                     23
262    658  ADR5   DCW   00000      FIVE DIGIT ADDRESS                      S   5  0658                     23
263    661  KZ3    DCW   000                                                S   3  0661                     23
264    662  KP2    DCW   &2                                                 S   1  0662                     23
265    664  W2A    DCW   #2                                                 S   2  0664                     23
266    665  K9     DCW   9                                                  S   1  0665                     24
267    667  KM10   DCW   @I0@                                              S   2  0667                     24
268    669  W2B    DCW   #2                                                 S   2  0669                     24
269    670  KP1    DCW   &1                                                 S   1  0670                     24
270    672  KP15   DCW   &15                                               S   2  0672                     24
271    680  XQTD   DCW   @EXECUTED@                                        S   8  0680                     24
272               SFX             END OF SNAPSHOT ROUTINE
273         *
274         * STORAGE FOR PARAMETER CARD
275         *
276               DA    1X19                                                    0681   0699
277    685  PWORD        5   THE WORD PARAM                                    0685              SBFLD
278    688  TOPCOR       8   TOP CORE ADDRESS FROM PARAM CARD                   0688              SBFLD
279    690  IMOD         10  INTEGER MODULUS -- NUMBER OF DIGITS               0690              SBFLD
280    692  MANTIS       12  FLOATING POINT MANTISSA DIGITS                    0692              SBFLD
281    693  CONDNS       13  P FOR CONDENSED DECK                              0693              SBFLD
282    694  SNAPSW       14  S FOR SNAPSHOT                                    0694              SBFLD
283    695  C1410        15  T IF RUN ON 1410 IN 1401 COMPATIBILITY MODE       0695              SBFLD
284    696  FMTSW        16  X FOR NO FORMAT, L FOR LIMITED FORMAT             0696              SBFLD
285         *                    BLANK FOR ORDINARY, A FOR A CONVERSION
286    699  PARAM        19  PARAMETER CARD IS STORED HERE                     0699              SBFLD
287         *
288         * LOAD NEXT OVERLAY
289         *
290               SFX   L                                                  L
291    700  LOADNX MCW   CLRBOT-2,K999-2  SET CLEAR END HIGH DIGIT          L   7  0700  M 831 828          25
292    707  CLEARL CS    0-0                                                L   4  0707  / 000              25
293    711         SBR   CLEARL&3                                           L   4  0711  H 710              25
294    715         C     CLEARL&3,K999                                      L   7  0715  C 710 830          25
295    722         BU    CLEARL                                             L   5  0722  B 707 /            25
296    727         SW    CLRWM&4                                            L   4  0727  , 758              25
297    731         MCW   CLEARL&3,CLRWM&6                                   L   7  0731  M 710 760          25
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD

298    738         CW    CLRWM&4                                    L   4  0738  ) 758              26
299    742  CLRL   C     CLRWM&6,CLRBOT                             L   7  0742  C 760 833           26
300    749         BE    CDOVLY     LOAD THE OVERLAY                L   5  0749  B 769 S            26
301    754  CLRWM  LCA   BLANK,0    CLEAR WITH BLANK AND WORD MARK  L   7  0754  L 834 000          26
302    761         SBR   CLRWM&6                                    L   4  0761  H 760              26
303    765         B     CLRL                                       L   4  0765  B 742              26
304    769  CDOVLY R     40         CARD OVERLAY UNLESS NOP         L   4  0769  1 040              26
305    773  RDAGIN MCW   EINIT,ECOUNT  INITIALIZE ERROR COUNT      L   7  0773  M 835 837          27
306    780  TPREAD RTW   1,BEGINN   LOAD OVERLAY FROM TAPE          L   8  0780  L %U1 838 R        27
307    788         BER   TPERR      ERROR?                          L   5  0788  B 797 L            27
308    793         B     BEGINN     NO, RUN THE OVERLAY             L   4  0793  B 838              27
309    797  TPERR  BSP   1                                          L   5  0797  U %U1 B            27
310    802         S     ONE,ECOUNT                                 L   7  0802  S 836 837          27
311    809         BWZ   TPREAD,ECOUNT,B  STILL POSITIVE?          L   8  0809  V 780 837 B        28
312    817         H     3333,3333  TOO MANY TAPE ERRORS            L   7  0817  . C33 C33          28
313    824         B     RDAGIN     READ AGAIN                      L   4  0824  B 773              28
314    830  K999   DSA   999                                        L   3  0830  999                28
315    833  CLRBOT DCW   #3         ADDRESS TO CLEAR DOWN TO        L   3  0833                     28
316    834  BLANK  DCW   #1                                         L   1  0834                     28
317    835  EINIT  DCW   &9         INITIAL ERROR COUNT             L   1  0835                     28
318    836  ONE    DCW   &1                                         L   1  0836                     29
319    837  ECOUNT DCW   #1                                         L   1  0837                     29
320               SFX               END OF LOAD NEXT OVERLAY ROUTINE
321         *
322         * START HERE
323         *
324    838  BEGINN BCE   CARD,1,    BEING LOADED FROM CARDS?           8  0838  B 853 001          29
325    846         MCW   NOP,CDOVLY  TURN OFF CARD OVERLAY            7  0846  M N49 769          29
326    853  CARD   CS    80                                           4  0853  / 080              29
327    857         SW    1,GM                                         7  0857  , 001 N29          29
328    864         SW    81,84                                        7  0864  , 081 084          29
329    871         CS    332                                          4  0871  / 332              30
330    875         CS                                                 1  0875  /                  30
331         *
332         * READ AND CHECK PARAMETER CARD
333         *
334    876         R                 READ PARAMETER CARD              1  0876  1                  30
335    877         LCA   19,PARAM    SAVE IT                          7  0877  L 019 699          30
336    884         C     PARAM-14,KPARAM  IS IT A PARAMETER CARD?     7  0884  C 685 N54          30
337    891         BU    NOPARM      NO, ANNOUNCE ERROR               5  0891  B L24 /            30
338    896         SW    73          SET WORD MARKS FOR               4  0896  , 073              30
339    900         SW    6,7           FORTRAN MARGINS                7  0900  , 006 007          31
340    907         SW    TOPCOR-2                                     4  0907  , 686              31
341    911         MCW   80,PWORD                                     7  0911  M 080 685          31
342         *
343         * DETERMINE THIS MACHINE'S CORE SIZE, COMPARE IT TO
344         * SIZE ON PARAMETER CARD
345         *
346    918         CS    0-0                                          4  0918  / 000              31
347    922         SBR   CORSIZ                                       4  0922  H N57              31
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
348    926          MCW   TOPCOR,TOCONV                                        7  0926  M 688 N60           31
349    933          B     ADCONV     COVERT TOPCOR TO FIVE DIGITS              4  0933  B Y76               31
350    937          MCW   CONVTD,TOP5                                         7  0937  M N65 O53           32
351    944          MCW   CORSIZ,TOCONV                                       7  0944  M N57 N60           32
352    951          B     ADCONV     CONVERT CORSIZ TO FIVE DIGITS            4  0951  B Y76               32
353    955          MCW   CONVTD,COR5                                         7  0955  M N65 O48           32
354    962          A     KP1,TOP5   TOP ADDR + 1 = SIZE                      7  0962  A N66 O53           32
355    969          A     KP1,COR5   COR ADDR + 1 = SIZE                      7  0969  A N66 O48           32
356    976          CS    332                                                 4  0976  / 332               33
357    980          CS                                                        1  0980  /                   33
358    981          CC    1                                                   2  0981  F 1                 33
359    983          CS    332                                                 4  0983  / 332               33
360    987          CS                                                        1  0987  /                   33
361    988          MCW   STMSG,228  START FORTRAN COMPILATION MSG            7  0988  M N94 228           33
362    995          W                                                         1  0995  2                   33
363    996          CC    J                                                   2  0996  F J                 34
364    998          MCW   TOP5,231                                           7  0998  M O53 231           34
365  1 005          MCW   SPSIZE     SPECIFIED SIZE                           4  1005  M O20               34
366  1 009          W                                                         1  1009  2                   34
367  1 010          CS    235                                                 4  1010  / 235               34
368  1 014          MCW   COR5,228                                            7  1014  M O48 228           34
369  1 021          MCW   ACTSIZ     ACTUAL SIZE                              4  1021  M O43               34
370  1 025          BCE   BIGNUF,C1410,T  COMPILING FOR 1410 COMPATIBILITY?  8  1025  B |96 695 T         35
371  1 033          W                                                         1  1033  2                   35
372  1 034          C     COR5,TOP5                                           7  1034  C O48 O53           35
373  1 041          BH    PSGTM       PRINT SPEC SIZE GT MACH SIZE            5  1041  B |77 U             35
374  1 046          C     TOP5,K3900  COMPARE TOP TO 3900                     7  1046  C O53 O58           35
375  1 053          BL    BIGNUF                                              5  1053  B |96 T             35
376  1 058          CC    J                                                   2  1058  F J                 35
377  1 060          CS    332                                                 4  1060  / 332               36
378  1 064          CS                                                        1  1064  /                   36
379  1 065          MCW   SIZERR,218  MACHINE SIZE ERROR                      7  1065  M O76 218           36
380  1 072          W                                                         1  1072  2                   36
381  1 073          B     USEACT                                              4  1073  B |89               36
382  1 077  PSGTM   MCW   SGTM,267  SPEC. SIZE GT MACH. SIZE MSG              7  1077  M P22 267           36
383  1 084          MCW   SGTM2     REST OF THE MESSAGE                       4  1084  M P43               36
384  1 088          W                                                         1  1088  2                   37
385  1 089  USEACT  MCW   CORSIZ,TOPCOR  USE ACTUAL SIZE                      7  1089  M N57 688           37
386  1 096  BIGNUF  MCW   TOPCOR,CLEARD&3                                     7  1096  M 688 /06           37
387          *
388          * CLEAR FROM TOP OF THIS MACHINE'S MEMORY DOWN TO DOWNTO
389          *
390  1 103  CLEARD  CS    0-0                                                 4  1103  / 000               37
391  1 107          SBR   CLEARD&3                                           4  1107  H /06               37
392  1 111          C     CLEARD&3,DOWNTO                                     7  1111  C /06 P46           37
393  1 118          BU    CLEARD                                              5  1118  B /03 /             37
394          *
395  1 123          R                                                         1  1123  1                   38
396  1 124          MZ    *-6,AZONE  SET A ZONE AFTER CARD STORAGE AREA       7  1124  Y /24 N01           38
397  1 131          MZ    *-6,INTRST&7   SET A ZONE IN BCE D-MODIFIER          7  1131  Y /31 X07           38
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

398  1 138         MZ    *-6,BLNKOK&7     ,,                                7  1138  Y /38 Z80           38
399  1 145         MZ    *-6,INTCHR-1   ADD A ZONE TO INTERESTING CHARS     7  1145  Y /45 L87           38
400  1 152         MCW   PREFIX,CARD1-1  SET DEFAULT PREFIX                 7  1152  M N33 M28           38
401  1 159         MCW   TOPCOR,*&4                                        7  1159  M 688 /69           39
402  1 166         CW    0-0                                               4  1166  ) 000               39
403  1 170         SBR   MVCHAR&6                                          4  1170  H T70               39
404         *
405         * PROCESS NEXT CARD
406         *
407  1 174  RDLOOP BW    MOVECD,FLAG                                       8  1174  V S11 Q28 1         39
408  1 182         BCE   DONE,1,:                                          8  1182  B !70 001 :         39
409         *
410         * NO SYSTEM AFTER END CARD
411         *
412  1 190  NOSYS  CC    1                                                 2  1190  F 1                 39
413  1 192         CS    332                                               4  1192  / 332               39
414  1 196         CS                                                      1  1196  /                   40
415  1 197         MCW   MSG1,270                                          7  1197  M P87 270           40
416  1 204         W                                                       1  1204  2                   40
417  1 205         CC    1                                                 2  1205  F 1                 40
418  1 207  HALT1  H     HALT1                                             4  1207  . S07               40
419         *
420         * MOVE CARD TO SAVE AREA
421         *
422  1 211  MOVECD MCW   72,CARD72  MOVE CARD TO SAVE AREA                 7  1211  M 072 N00           40
423  1 218         MCW                                                     1  1218  M                   40
424  1 219         MCW                                                     1  1219  M                   41
425  1 220         BCE   DONE,CARD1,:                                      8  1220  B !70 M29 :         41
426  1 228  C12T   BIN   PRTHDG,  UNCONDITIONAL AT FIRST, BECOMES BCV      5  1228  B K67               41
427  1 233  AFTHDG CS    300                                               4  1233  / 300               41
428  1 237         CS                                                      1  1237  /                   41
429  1 238         MCW   72,283   MOVE CARD TO PRINT AREA                  7  1238  M 072 283           41
430  1 245         MCW   6,215                                             7  1245  M 006 215           41
431  1 252         BCE   LSTCMT,CARD1,C    PRINT NOW IF COMMENT           8  1252  B L58 M29 C         42
432  1 260  CRD1SW B     NOTCNT  BECOMES NOP AFTER FIRST CARD              4  1260  B V46               42
433  1 264         BCE   NOTCNT,CARD6,0                                    8  1264  B V46 M34 0         42
434  1 272         BCE   NOTCNT,CARD6,                                    8  1272  B V46 M34           42
435         *
436         * CONTINUATION CARD
437         *
438  1 280         A     KP1,CNTCNT        BUMP CONTINUATION COUNT         7  1280  A N66 Q24           42
439  1 287         BCE   CNTOK,CNTCNT-1,0  NINE OR FEWER?                  8  1287  B T02 Q23 0         43
440  1 295         MCW   CNTMSG,300        PUT ERROR MSG IN PRINT AREA     7  1295  M Q02 300           43
441  1 302  CNTOK  W               LIST THE CARD                           1  1302  2                   43
442  1 303         MCW   CARD7A,SVCHAR&3   SET SAVE CHAR ADDR TO COL 7     7  1303  M N06 T13           43
443         *
444         * PROCESS THE CARD (NOTCNT COMES BACK HERE)
445         *
446  1 310  SVCHAR MCW   0-0,CHAR          SAVE A CHARACTER                7  1310  M 000 Q31           43
447  1 317         SW    SVCHAR&1                                          4  1317  , T11               43
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
448  1 321          A     K1,SVCHAR&3       BUMP ADDR OF CHAR TO SAVE          7  1321  A N10 T13           44
449  1 328          CW    SVCHAR&1                                             4  1328  ) T11               44
450  1 332  CRD2SW NOP   BLNKOK            BRANCH IF COPYING EVERYTHING       4  1332  N Z73               44
451  1 336          BCE   SVCHAR,CHAR,      SKIP BLANKS                        8  1336  B T10 Q31           44
452  1 344          MCW   CHAR,*&8                                            7  1344  M Q31 T58           44
453  1 351          BCE   INTRST,INTCHR,0                                    8  1351  B X00 L88 0         44
454                 CHAIN 5                                                                 MACRO
455                 BCE                                                      1  1359  B           GEN     44
456                 BCE                                                      1  1360  B           GEN     45
457                 BCE                                                      1  1361  B           GEN     45
458                 BCE                                                      1  1362  B           GEN     45
459                 BCE                                                      1  1363  B           GEN     45
460  1 364  MVCHAR MCW   CHAR,0                                             7  1364  M Q31 000           45
461  1 371          SBR   MVCHAR&6                                           4  1371  H T70               45
462  1 375  BUMPNS A     KP1,NCHAR         BUMP CHARACTER COUNTER           7  1375  A N66 Q07           45
463  1 382          C     MVCHAR&6,BOTCOR   CORE FULL OF SOURCE CODE?        7  1382  C T70 Q10           46
464  1 389          BE    BIGSRC                                             5  1389  B K33 S             46
465  1 394  CRD3SW BCE   HOLLER,CHAR,H                                      8  1394  B X51 Q31 H         46
466  1 402  CRD4SW NOP   BRANCH,CRD3SW                                      7  1402  N Q11 T94           46
467         *
468  1 409  TEST7  C     SVCHAR&3,CARD7A   AT COLUMN 7?                     7  1409  C T13 N06           46
469  1 416  CRD5SW BU    SVCHAR                                             5  1416  B T10 /             46
470  1 421          SW    MVCHAR&4                                           4  1421  , T68               47
471  1 425  CRD6SW MCW   MVCHAR&6,X2                                        7  1425  M T70 094           47
472  1 432          CW    MVCHAR&4                                           4  1432  ) T68               47
473  1 436          MCW   NOP2,CRD6SW                                       7  1436  M N28 U25           47
474  1 443          MCW   NOP2,CRD5SW                                       7  1443  M N28 U16           47
475  1 450          A     K10,COLCNT                                         7  1450  A N36 N03           47
476  1 457          BCE   COL3,COLCNT-1,5    THREE COLUMNS DONE?             8  1457  B W69 N02 5         48
477  1 465          SW    FLAG                                               4  1465  , Q28               48
478  1 469          BWZ   SVCHAR,COLCNT-1,2  MORE THAN SEVEN COLUMNS DONE?   8  1469  V T10 N02 2         48
479  1 477          MCW   BRNCH2,CRD5SW                                      7  1477  M N11 U16           48
480  1 484          MCW   0&X2,WORK7                                         7  1484  M 0!0 N20           48
481  1 491          C     KFMT,WORK7  FORMAT% ?                              7  1491  C N27 N20           49
482  1 498          BU    SVCHAR                                             5  1498  B T10 /             49
483         *
484         * PROCESS A FORMAT STATEMENT
485         *
486  1 503          MCW   BRANCH,CRD3SW                                      7  1503  M Q11 T94           49
487  1 510          MCW   0&X3,WORK6                                         7  1510  M 0?0 Q17           49
488  1 517          MCW   KF,WORK6-3                                         7  1517  M Q18 Q14           49
489  1 524          MCW   WORK6,0&X3                                         7  1524  M Q17 0?0           50
490  1 531          B     SVCHAR                                             4  1531  B T10               50
491         *
492  1 535  SLASH  MCW   KAT,CHAR   CONVERT SLASH TO AT-SIGN                 7  1535  M Q19 Q31           50
493  1 542          B     MVCHAR                                             4  1542  B T64               50
494         *
495         * NOT A CONTINUATION CARD
496         *
497  1 546  NOTCNT MCW   NOP,CRD1SW                                         7  1546  M N49 S60           50
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

498  1 553         A     KP1,NSTMT                                           7  1553  A N66 Q22           50
499  1 560         MCW   NOP,CRD3SW                                         7  1560  M N49 T94           51
500  1 567         MCW   NOP,CRD4SW                                         7  1567  M N49 U02           51
501  1 574         MCW   5,211      MOVE LABEL TO PRINT AREA                 7  1574  M 005 211           51
502  1 581         S     CNTCNT     CLEAR CONTINUATION COUNT                 4  1581  S Q24               51
503  1 585         MCW   NOP,CRD2SW                                         7  1585  M N49 T32           51
504  1 592         MCS   NSTMT,203  MOVE STATEMENT COUNT TO PRINT AREA       7  1592  Z Q22 203           51
505  1 599         W                                                        1  1599  2                   52
506  1 600         SW    MVCHAR&4                                           4  1600  , T68               52
507  1 604         MCW   MVCHAR&6,MVCHR2&6                                  7  1604  M T70 W28           52
508  1 611         CW    MVCHAR&4                                           4  1611  ) T68               52
509  1 615         MCW   MOVE,CRD6SW                                        7  1615  M N37 U25           52
510  1 622  MVCHR2 LCA   GM,0                                               7  1622  L N29 000           52
511  1 629         SBR   X3         SAVE ADDRESS OF FIRST CHAR STORED       4  1629  H 099               52
512  1 633         SBR   MVCHAR&6                                           4  1633  H T70               53
513  1 637         MCW   COLON,CARD6  COLON AFTER LABEL, IF ANY             7  1637  M N34 M34           53
514  1 644         MCW   BRNCH2,CRD5SW                                      7  1644  M N11 U16           53
515  1 651         MCW   K20,COLCNT   INITIALIZE COLUMN COUNTER             7  1651  M N13 N03           53
516  1 658         MCW   SAVE2A,SVCHAR&3                                    7  1658  M N09 T13           53
517  1 665         B     SVCHAR                                             4  1665  B T10               53
518         *
519  1 669  COL3   C     0&X2,KEND  END CARD?                               7  1669  C 0!0 Q27           54
520  1 676         BU    SVCHAR                                             5  1676  B T10 /             54
521  1 681         CW    FLAG                                               4  1681  ) Q28               54
522  1 685         B     SVCHAR                                             4  1685  B T10               54
523         *
524  1 689  AT     MCW   KMINUS,CHAR  CONVERT AT SIGN TO MINUS              7  1689  M Q29 Q31           54
525  1 696         B     MVCHAR                                             4  1696  B T64               54
526         *
527         * SAW AN INTERESTING CHARACTER
528         *
529  1 700  INTRST BCE   TESTLC,CHAR,    TEST FOR A ZONE                    8  1700  B L73 Q31           54
530  1 708         BCE   TESTLC,CHAR,|   RECORD MARK                        8  1708  B L73 Q31 |         55
531  1 716         BCE   SLASH,CHAR,/                                       8  1716  B V35 Q31 /         55
532  1 724         BCE   AT,CHAR,@                                          8  1724  B W89 Q31 @         55
533  1 732         MCW   KSTAR,300                                          7  1732  M Q30 300           55
534  1 739         MCW   PROCD                                             4  1739  M N48               55
535  1 743         MCW   CHAR                                              4  1743  M Q31               55
536  1 747         B     MVCHAR                                             4  1747  B T64               56
537         *
538         * CHARACTER IS H, PROBABLY HOLLERITH
539         *
540  1 751  HOLLER MCW   MVCHAR&6,X1                                        7  1751  M T70 089           56
541  1 758         MCW   NOP,CRD3SW                                         7  1758  M N49 T94           56
542  1 765         MCW   NOP,CRD4SW                                         7  1765  M N49 U02           56
543  1 772         MCW   BRANCH,CRD2SW                                      7  1772  M Q11 T32           56
544  1 779         MCW   4&X1,HCOUNT  REMEMBER, SOURCE IS STORED BACKWARD   7  1779  M 0|4 Q34           56
545  1 786         BCE   AT2,HCOUNT-1,@                                     8  1786  B Y02 Q33 @         57
546  1 794         BWZ   NZHM1,HCOUNT-1,2                                   8  1794  V Y17 Q33 2         57
547  1 802  AT2    MCW   HCOUNT-2,HCOUNT  ONE DIGIT OF HOLLERITH COIUNT     7  1802  M Q32 Q34           57
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
548  1 809         MCW   KZ2                                                 4  1809  M Q36              57
549  1 813         B     TEST7                                               4  1813  B U09              57
550         *
551         * NO ZONE AT HCOUNT-1
552         *
553  1 817  NZHM1  BCE   AT3,HCOUNT,@                                        8  1817  B Y33 Q34 @        57
554  1 825         BWZ   NZH,HCOUNT,2                                        8  1825  V Y51 Q34 2        58
555  1 833  AT3    MCW   HCOUNT-2,HCOUNT                                     7  1833  M Q32 Q34          58
556  1 840         MCW   KZ1,HCOUNT-2                                       7  1840  M Q37 Q32          58
557  1 847         B     TEST7                                               4  1847  B U09              58
558         *
559         * NO ZONE AT HCOUNT.  REVERSE THE DIGITS
560         *
561  1 851  NZH    MCW   HCOUNT,WORKH1                                      7  1851  M Q34 Q38          58
562  1 858         MCW   HCOUNT-2,HCOUNT                                    7  1858  M Q32 Q34          59
563  1 865         MCW   WORKH1,HCOUNT-2                                    7  1865  M Q38 Q32          59
564  1 872         B     TEST7                                               4  1872  B U09              59
565         *
566         * CONVERT ADDRESS TO FIVE DIGITS
567         *
568                SFX   C                                                C
569  1 876  ADCONV SBR   EXIT&3                                            C   4  1876  H Z72              59
570  1 880         S     CNVW2A                                            C   4  1880  S Q40              59
571  1 884         S     CNVW2B                                            C   4  1884  S Q42              59
572  1 888         MZ    TOCONV,CNVW2A-1                                   C   7  1888  Y N60 Q39          59
573  1 895         MZ    TOCONV-2,CNVW2B-1                                 C   7  1895  Y N58 Q41          60
574  1 902  LOOP1  BWZ   LOOP2,CNVW2B-1,2                                  C   8  1902  V Z21 Q41 2        60
575  1 910         A     CNVKA0,CNVW2B                                     C   7  1910  A Q44 Q42          60
576  1 917         B     LOOP1                                             C   4  1917  B Z02              60
577  1 921  LOOP2  BWZ   LP2X,CNVW2A-1,2                                   C   8  1921  V Z40 Q39 2        60
578  1 929         A     CNVKQ4,CNVW2A                                     C   7  1929  A Q46 Q40          61
579  1 936         B     LOOP2                                             C   4  1936  B Z21              61
580  1 940  LP2X   A     CNVW2B-1,CNVW2A                                   C   7  1940  A Q41 Q40          61
581  1 947         MCW   TOCONV,CONVTD                                     C   7  1947  M N60 N65          61
582  1 954         MCW   CNVW2A                                           C   4  1954  M Q40              61
583  1 958         ZA    CONVTD                                            C   4  1958  ? N65              61
584  1 962         MZ    *-4,CONVTD  CLEAR ZONE IN OUTPUT                  C   7  1962  Y Z64 N65          62
585  1 969  EXIT   B     0-0                                               C   4  1969  B 000              62
586                SFX
587         *
588  1 973  BLNKOK BCE   TESTLC,CHAR,   TEST FOR A ZONE                    8  1973  B L73 Q31          62
589  1 981         S     KP1,HCOUNT                                        7  1981  S N66 Q34          62
590  1 988         C     HCOUNT,PZE  HOLLERITH COUNT DOWN TO ZERO?         7  1988  C Q34 Q49          62
591  1 995         BU    MVCHAR      NOPE, JUST MOVE THE CHARACTER         5  1995  B T64 /            62
592  2 000         MCW   MOVE2,CRD4SW                                      7  2000  M Q50 U02          63
593  2 007         MCW   NOP2,CRD2SW                                       7  2007  M N28 T32          63
594  2 014         MCW   SVCHAR&3,X1                                       7  2014  M T13 089          63
595  2 021         C     0&X1,COMMA                                        7  2021  C 0|0 Q51          63
596  2 028         BE    MVCHAR                                            5  2028  B T64 S            63
597  2 033         MCW   MVCHAR&6,*&7                                      7  2033  M T70 !46          64
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
598  2 040         MCW   0,0                                               7  2040  M 000 000           64
599  2 047         MCW   COMMA                                             4  2047  M Q51               64
600  2 051         SBR   MVCHAR&6                                         4  2051  H T70               64
601  2 055         A     KP1,NCHAR                                         7  2055  A N66 Q07           64
602  2 062         B     BUMPNS                                            4  2062  B T75               64
603  2 066         B     MVCHAR                                            4  2066  B T64               64
604          *
605          * FINISHED READING THE SOURCE DECK
606          *
607  2 070  DONE   MCW   MVCHAR&6,X1                                        7  2070  M T70 089           65
608  2 077         LCA   GM,0&X1                                           7  2077  L N29 0|0           65
609  2 084         SBR   X1                                                4  2084  H 089               65
610  2 088         CC    1                                                 2  2088  F 1                 65
611  2 090         CS    332                                               4  2090  / 332               65
612  2 094         CS                                                      1  2094  /                   65
613  2 095         MCS   NCHAR,205                                         7  2095  Z Q07 205           65
614  2 102         MCW   MSGCHR,222                                        7  2102  M Q67 222           66
615  2 109         W                                                       1  2109  2                   66
616  2 110         CC    J                                                 2  2110  F J                 66
617  2 112         MCW   NSTMT,NSTMTS                                     7  2112  M Q22 183           66
618  2 119         LCA   STOP,0&X1                                         7  2119  L Q78 0|0           66
619  2 126         SBR   X1                                                4  2126  H 089               66
620  2 130         SW    2&X1                                              4  2130  , 0|2               66
621  2 134         A     KP1,NSTMTS                                        7  2134  A N66 183           67
622  2 141         BCE   NOTBIG,3000,                                      8  2141  B J53 ?00           67
623  2 149         B     BIGSRC                                            4  2149  B K33               67
624  2 153  NOTBIG SBR   CLEARL&3,2999                                     7  2153  H 710 R99           67
625  2 160         SBR   CLRBOT,BEGINN  CHANGE ADDRESS TO CLEAR DOWN TO    7  2160  H 833 838           67
626  2 167         BSS   SNAPSH,C                                          5  2167  B 333 C             67
627  2 172         LCA   SCANR1,PHASID  SCANNER                           7  2172  L Q85 110           68
628  2 179         CS    80         GET                                    4  2179  / 080               68
629  2 183         SW    1,40         READY                                7  2183  , 001 040           68
630  2 190         SW    47,54          FOR                                7  2190  , 047 054           68
631  2 197         SW    61,68            CARD                             7  2197  , 061 068           68
632  2 204         SW    72                 OVERLAY                        4  2204  , 072               68
633  2 208         BCE   LOADNX,CDOVLY,N  RUNNING FROM TAPE?               8  2208  B 700 769 N         69
634  2 216         R                                                       1  2216  1                   69
635  2 217         C     7,SCANR2                                          7  2217  C 007 Q92           69
636  2 224         BE    LOADNX                                            5  2224  B 700 S             69
637  2 229         B     NOSYS                                             4  2229  B /90               69
638          *
639          * SOURCE PROGRAM TOO BIG
640          *
641  2 233  BIGSRC CS    332                                               4  2233  / 332               69
642  2 237         CS                                                      1  2237  /                   69
643  2 238         CC    1                                                 2  2238  F 1                 70
644  2 240         MCW   MSG2,270                                          7  2240  M R28 270           70
645  2 247         W                                                       1  2247  2                   70
646  2 248         CC    1                                                 2  2248  F 1                 70
647  2 250         BCE   HALT2,CDOVLY,1  RUNNING FROM CARDS?               8  2250  B K63 769 1         70
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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD

648  2 258         RWD   1             NO, REWIND THE TAPE             5  2258  U %U1 R             70
649  2 263  HALT2  H     HALT2                                         4  2263  . K63               70
650         *
651         * PRINT LISTING PAGE HEADING
652         *
653  2 267  PRTHDG CC    1                                           2  2267  F 1                 71
654  2 269         MCW   KAT,C12T&4  CHANGE TO BCV                   7  2269  M Q19 S32           71
655  2 276         CS    299                                         4  2276  / 299               71
656  2 280         A     K1,PAGNUM                                   7  2280  A N10 R31           71
657  2 287         MCS   PAGNUM,299                                  7  2287  Z R31 299           71
658  2 294         MCW   KPAGE,295                                   7  2294  M R39 295           71
659  2 301         MCW   80                                          4  2301  M 080               71
660  2 305         W                                                 1  2305  2                   72
661  2 306         CS    299                                         4  2306  / 299               72
662  2 310         MCW   PAGHDG,234                                  7  2310  M M23 234           72
663  2 317         W                                                 1  2317  2                   72
664  2 318         CC    J                                           2  2318  F J                 72
665  2 320         B     AFTHDG                                      4  2320  B S33               72
666         *
667         * NO PARAMETER CARD
668         *
669  2 324  NOPARM CC    1                                           2  2324  F 1                 72
670  2 326         CS    332                                         4  2326  / 332               73
671  2 330         CS                                                1  2330  /                   73
672  2 331         MCW   MSG3,270                                    7  2331  M R68 270           73
673  2 338         W                                                 1  2338  2                   73
674  2 339         CC    1                                           2  2339  F 1                 73
675  2 341         BCE   HALT3,CDOVLY,1  RUNNING FROM CARDS?        8  2341  B L54 769 1         73
676  2 349         RWD   1             NO, REWIND THE TAPE           5  2349  U %U1 R             73
677  2 354  HALT3  H     HALT3                                       4  2354  . L54               74
678         *
679         * LIST COMMENT CARD
680         *
681  2 358  LSTCMT MCW   FINAL,203                                   7  2358  M R71 203           74
682  2 365         MCW   5,211                                       7  2365  M 005 211           74
683  2 372         W                                                 1  2372  2                   74
684  2 373  TESTLC BLC   DONE                                       5  2373  B !70 A             74
685  2 378         R                                                 1  2378  1                   74
686  2 379         B     RDLOOP                                      4  2379  B /74               74
687         *
688  2 388  INTCHR DCW   @$@/|  @  INTERESTING CHARACTERS           6  2388                      75
689  2 423  PAGHDG DCW   @ SEQ   STMNT      FORTRAN STATEMENT@      35  2423                      76
690         *
691         * CARD SAVE AREA
692         *
693                DA    1X78                                          2424   2501
694         SAVE2        2                                             2425              SBFLD
695         CARD1        6                                             2429              SBFLD
696         CARD6        11                                            2434              SBFLD
697         CARD7        12                                            2435              SBFLD
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

698         CARD72       77                                                    2500              SBFLD
699         AZONE        78                                                    2501              SBFLD
700         *
701         * CONSTANTS AND WORK AREAS
702         *
703  2 503  COLCNT DCW   #2                                                     2  2503                    77
704  2 506  CARD7A DSA   CARD7  ADDRESS OF COLUMN 7 IN SAVE AREA               3  2506  M35               77
705  2 509  SAVE2A DSA   SAVE2                                                 3  2509  M25               77
706  2 510  K1     DCW   1                                                     1  2510                    77
707  2 511  BRNCH2 B                                                          1  2511  B                 77
708  2 513  K20    DC    20                                                    2  2513                    77
709  2 520  WORK7  DCW   #7                                                    7  2520                    77
710  2 527  KFMT   DCW   @%TAMROF@  'FORMAT%' SPELLED BACKWARD                7  2527                    77
711  2 528  NOP2   DC    @N@                                                   1  2528                    77
712  2 529  GM     DC    @}@                                                   1  2529              GMARK 77
713  2 533  PREFIX DCW   @000R@     DEFAULT STATEMENT PREFIX -- ARITHMETIC     4  2533                    78
714  2 534  COLON  DCW   @:@                                                   1  2534                    78
715  2 536  K10    DCW   10                                                    2  2536                    78
716  2 537  MOVE   DC    @M@                                                   1  2537                    78
717  2 548  PROCD  DCW   @ PROCESSED @                                       11  2548                    78
718  2 549  NOP    NOP                                                         1  2549  N                 78
719  2 554  KPARAM DCW   @PARAM@                                               5  2554                    78
720  2 557  CORSIZ DCW   #3         ACTUAL MACHINE SIZE (TOP ADDR)             3  2557                    78
721  2 560  TOCONV DCW   #3         ADDRESS TO BE CONVERTED TO FIVE DIGITS     3  2560                    79
722  2 565  CONVTD DCW   #5         ADDRESS CONVERTED TO FIVE DIGITS           5  2565                    79
723  2 566  KP1    DCW   &1                                                    1  2566                    79
724  2 594  STMSG  DCW   @START OF FORTRAN COMPILATION@                       28  2594                    79
725  2 620  SPSIZE DCW   @MACHINE SIZE SPECIFIED IS @                         26  2620                    80
726  2 643  ACTSIZ DCW   @ACTUAL MACHINE SIZE IS @                            23  2643                    81
727  2 648  COR5   DCW   #5         CORSIZ AS FIVE DIGITS                      5  2648                    81
728  2 653  TOP5   DCW   #5         TOPCOR AS FIVE DIGITS                      5  2653                    81
729  2 658  K3900  DCW   03900                                                 5  2658                    81
730  2 676  SIZERR DCW   @MACHINE SIZE ERROR@                                18  2676                    82
731  2 722  SGTM   DCW   @SPECIFIED IS GREATER THAN ACTUAL MACHINE SIZE.@     46  2722                    84
732  2 743  SGTM2  DCW   @ERROR - MACHINE SIZE @                             21  2743                    84
733  2 746  DOWNTO DSA   2999                        DCW  @R99@                3  2746  R99               84
734  2 787  MSG1   DCW   @MESSAGE 1-SYSTEM DOES NOT FOLLOW END CARD@         41  2787                    86
735  2 802  CNTMSG DCW   @CONTINUE CD ERR@                                    15  2802                    86
736  2 807  NCHAR  DCW   #5         NUMBER OF CHARACTERS                       5  2807                    86
737  2 810  BOTCOR DSA   3000       BOTTOM OF SPACE TO STORE PROGRAM           3  2810  ?00               86
738  2 811  BRANCH DCW   @B@                                                   1  2811                    86
739  2 817  WORK6  DCW   #6                                                    6  2817                    87
740  2 818  KF     DCW   @F@                                                   1  2818                    87
741  2 819  KAT    DCW   @@@                                                   1  2819                    87
742  2 822  NSTMT  DCW   #3         NUMBER OF STATEMENTS                       3  2822                    87
743  2 824  CNTCNT DCW   #2         COUNT OF CONTINUATION CARDS                2  2824                    87
744  2 827  KEND   DCW   @DNE@      END SPELLED BACKWARD                       3  2827                    87
745  2 828  FLAG   DCW   #1         WORD MARK IS A FLAG                        1  2828                    87
746  2 829  KMINUS DCW   @-@                                                   1  2829                    88
747  2 830  KSTAR  DCW   @*@                                                   1  2830                    88
```

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

748  2 831  CHAR   DCW   #1         CHARACTER FROM INPUT                1  2831                      88
749  2 834  HCOUNT DCW   #3         HOLLERITH COUNT                     3  2834                      88
750  2 836  KZ2    DCW   00         TWO ZEROS                           2  2836                      88
751  2 837  KZ1    DCW   0                                             1  2837                      88
752  2 838  WORKH1 DCW   #1         WORK SPACE FOR HOLLERITH COUNT      1  2838                      88
753  2 840  CNVW2A DCW   #2         WORK SPACE FOR ADDRESS CONVERSION   2  2840                      89
754  2 842  CNVW2B DCW   #2         WORK SPACE FOR ADDRESS CONVERSION   2  2842                      89
755  2 844  CNVKA0 DCW   @A0@       CONSTANT FOR ADDRESS CONVERSION     2  2844                      89
756  2 846  CNVKQ4 DCW   @?4@       CONSTANT FOR ADDRESS CONVERSION     2  2846                      89
757  2 849  PZE    DCW   &000       PLUS ZERO                           3  2849                      89
758  2 850  MOVE2  MCW                                                 1  2850  M                   89
759  2 851  COMMA  DCW   @,@                                           1  2851                      89
760  2 867  MSGCHR DCW   @INPUT CHARACTERS@                           16  2867                      90
761  2 878  STOP   DCW   @ }POTS:R000@  STOP SPELLED BACKWARD, ETC.   11  2878                      90
762  2 885  SCANR1 DCW   @SCANNER@                                     7  2885                      90
763  2 892  SCANR2 DCW   @SCANNER@                                     7  2892                      91
764  2 928  MSG2   DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@      36  2928                      92
765  2 931  PAGNUM DCW   #3                                            3  2931                      92
766  2 939  KPAGE  DCW   @   PAGE @                                    8  2939                      93
767  2 968  MSG3   DCW   @MESSAGE 3 - NO PARAMETER CARD@             29  2968                      93
768  2 971  FINAL  DCW   #3                                            3  2971                      94
769                ORG   2999                                                 2999
770  2 999  GMWM   DCW   @}@                                           1  2999             GMARK    95
771                END   BEGINN                                                / 838 080
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
ACTSIZ	2643	ADCONV	1876	ADR5S	658	AFTHDG	1233	ARYSIZ	160	ARYTOP	194	AT	1689
AT2	1802	AT3	1833	AZONE	2501	BEGINN	838	BIGNUF	1096	BIGSRC	2233	BLANKL	834
BLNKOK	1973	BOTCOR	2810	BOTFMT	154	BRANCH	2811	BRNCH2	2511	BUMP3S	632	BUMPNS	1375
C12T	1228	C1410	695	CARD	853	CARD1	2429	CARD6	2434	CARD7	2435	CARD72	2500
CARD7A	2506	CDOVLY	769	CHAR	2831	CLEARD	1103	CLEARH	433	CLEARL	707	CLRBOT	833
CLRLL	742	CLRWML	754	CNTCNT	2824	CNTMSG	2802	CNTOK	1302	CNVKA0	2844	CNVKQ4	2846
CNVW2A	2840	CNVW2B	2842	COL3	1669	COLCNT	2503	COLON	2534	COMMA	2851	CONDNS	693
CONTS	568	CONVTD	2565	COR5	2648	CORSIZ	2557	CRD1SW	1260	CRD2SW	1332	CRD3SW	1394
CRD4SW	1402	CRD5SW	1416	CRD6SW	1425	DOCNT	151	DONE	2070	DOTSS	651	DOWMS	520
DOWNTO	2746	ECOUNT	837	EINITL	835	EXITC	1969	EXITS	564	EXPF	120	FINAL	2971
FLAG	2828	FLOATF	125	FMTSW	696	GETS	497	GLOBER	184	GM	2529	GMWM	2999
GOTXL	185	HALT1	1207	HALT2	2263	HALT3	2354	HALTS	563	HCOUNT	2834	HOLLER	1751
IMOD	690	INTCHR	2388	INTRST	1700	K1	2510	K10	2536	K20	2513	K3900	2658
K999L	830	K9S	665	KAT	2819	KEND	2827	KF	2818	KFMT	2527	KM10S	667
KMINUS	2829	KP1	2566	KP15S	672	KP1S	670	KP2S	662	KPAGE	2939	KPARAM	2554
KSTAR	2830	KZ1	2837	KZ2	2836	KZ3S	661	LDERR	10	LOADNX	700	LOGF	119
LOOP1C	1902	LOOP2C	1921	LOOPS	459	LP2XC	1940	LSTCMT	2358	MANTIS	692	MOVE	2537
MOVE2	2850	MOVECD	1211	MSG1	2787	MSG2	2928	MSG3	2968	MSGCHR	2867	MVCHAR	1364
MVCHR2	1622	NCHAR	2807	NEGAR2	142	NEGAR3	157	NEGARY	163	NOP	2549	NOP2	2528
NOPARM	2324	NOSYS	1190	NOTBIG	2153	NOTCNT	1546	NSTMT	2822	NSTMTS	183	NZH	1851
NZHM1	1817	ONEL	836	PAGHDG	2423	PAGNUM	2931	PARAM	699	PHASID	110	PREFIX	2533
PROCD	2548	PRTHDG	2267	PSGTM	1077	PWORD	685	PZE	2849	RDAGIN	773	RDLOOP	1174
RELTAB	188	RX1S	535	SAVE2	2425	SAVE2A	2509	SAWABS	122	SAWNEG	123	SCANR1	2885
SCANR2	2892	SEQTAB	148	SERIES	117	SGTM	2722	SGTM2	2743	SINCOS	118	SIZERR	2676
SKIPS	621	SLASH	1535	SNAPSH	333	SNAPSW	694	SPSIZE	2620	START	1	STMSG	2594
STOP	2878	SUBENT	191	SUBSCR	116	SVCHAR	1310	SX1S	416	SX3S	409	SXXS	402
TBLBOT	145	TEST7	1409	TESTLC	2373	TOCONV	2560	TOP5	2653	TOPCOR	688	TPERRL	797
TPREAD	780	USEACT	1089	W2AS	664	W2BS	669	WORK6	2817	WORK7	2520	WORKH1	2838
X1	89	X2	94	X3	99	XFIXF	124	XQTDS	680	XXXXX1	89	XXXXX2	94
XXXXX3	99												