```
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   @0097500023@                                        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												