```
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 -- TAMROF PHASE TWO -- 24                                PAGE    1

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

 101               JOB   FORTRAN COMPILER -- TAMROF PHASE TWO -- 24
 102               CTL   6611
 103         *
 104         * THE OBJECT-TIME FORMAT STRINGS ARE DEVELOPED AND STORED
 105         * IMMEDIATELY PRECEDING THE CONSTANTS AT THE LOWER (RIGHTMOST)
 106         * END OF STORAGE.
 107         *
 108         * ON ENTRY, X1 IS THE TOP OF STATEMENTS, X2 IS THE TOP OF
 109         * FORMATTED I/O STATEMENTS, AND 81-83 IS ONE BELOW THE NUMBER
 110         * TABLE.
 111         *
 112         X1     EQU   89                                                          0089
 113         X2     EQU   94                                                          0094
 114         X3     EQU   99                                                          0099
 115         *
 116         * STUFF IN THE RESIDENT AREA
 117         *
 118         PHASID EQU   110  PHASE ID, FOR SNAPSHOT DUMPS                          0110
 119         ARYSIZ EQU   160  TOTAL ARRAY SIZE & 2                                  0160
 120         NEGARY EQU   163  16000 - ARYSIZ                                        0163
 121         SNAPSH EQU   333  CORE DUMP SNAPSHOT                                    0333
 122         LOADNX EQU   700  LOAD NEXT OVERLAY                                     0700
 123         CLEARL EQU   707  CS AT START OF OVERLAY LOADER                         0707
 124         TPREAD EQU   780  TAPE READ INSTRUCTION IN OVERLAY LOADER               0780
 125         LOADXX EQU   793  EXIT FROM OVERLAY LOADER                             0793
 126         CLRBOT EQU   833  BOTTOM OF CORE TO CLEAR IN OVERLAY LOADER            0833
 127         TOOBIG EQU   838  TOO BIG ROUTINE                                      0838
 128         SEMIC  EQU   872  A SEMICOLON                                          0872
 129         SX3    EQU   875  SAVE AREA FOR X3 -- USED EXACTLY ONCE?               0875
 130         SEQCOD EQU   879  STATEMENT CODE, SEQUENCE NUMBER                     0879
 131         MSG    EQU   880  ERROR MESSAGE ROUTINE                               0880
 132         *
 133               ORG   980                                                             0980
 134         LOADDD EQU   *&1          LOAD ADDRESS                                  0980
 135    980  BEGINN BCE   DONE,96,.  NO FORMAT STATEMENTS                       8  0980  B |21 096 .          4
 136    988         MCW   X2,SX2&6                                             7  0988  M 094 J47            4
 137    995  NEXT   SBR   X2,2&X1                                            7  0995  H 094 0|2            4
 138  1 002         LCA   KB1                                                 4  1002  L M08                4
 139  1 006         MCW   0&X1,SEQCOD                                        7  1006  M 0|0 879            4
 140  1 013         BCE   FORMAT,SEQCOD-3,F                                  8  1013  B |62 876 F          5
 141         *
 142         * FORMAT STATEMENTS ARE SORTED TOGETHER, SO IF WE DO NOT
 143         * SEE ONE HERE, THERE ARE NO MORE.
 144         *
 145  1 021  DONE   BSS   SNAPSH,C                                            5  1021  B 333 C              5
 146  1 026         SBR   TPREAD&6,838                                        7  1026  H 786 838            5
 147  1 033         SBR   CLRBOT                                              4  1033  H 833                5
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
148  1 037         SBR   LOADXX&3,845                                 7  1037  H 796 845            5
149  1 044         SBR   CLEARL&3,GMWM                                7  1044  H 710 N99            5
150  1 051         LCA   LISTR1,PHASID                                7  1051  L M14 110            6
151  1 058         B     LOADNX                                       4  1058  B 700                6
152         *
153         * FORMAT STATEMENT
154         *
155  1 062  FORMAT C     0&X1  GET DOWN TO BODY                       4  1062  C 0|0                6
156  1 066         SAR   X1                                           4  1066  Q 089                6
157  1 070         SBR   SX1&6                                        4  1070  H /21                6
158  1 074         MCW   4&X1,FMTLAB                                  7  1074  M 0|4 M17            6
159  1 081         SW    FLAG1                                        4  1081  , M18                6
160  1 085         CW    FLAG2                                        4  1085  ) M19                7
161  1 089         ZA    KP1,W3                                       7  1089  ? M20 M26            7
162  1 096         BCE   SYNTAX,0&X1,)                               8  1096  B S58 0|0 )          7
163  1 104         MCW   X2,SX2B                                      7  1104  M 094 M23            7
164  1 111         B     CONT                                         4  1111  B V10                7
165  1 115  SX1    SBR   X1,0                                        7  1115  H 089 000            7
166  1 122  LOOP   ZA    KP1,W3                                       7  1122  ? M20 M26            8
167  1 129  CODEOK BCE   RPAR,0&X1,)                                 8  1129  B V41 0|0 )          8
168  1 137         SBR   SX1&6                                        4  1137  H /21                8
169  1 141         BCE   LPAR,0&X1,%                                 8  1141  B U98 0|0 %          8
170  1 149         BCE   IFEA,0&X1,I                                 8  1149  B W64 0|0 I          8
171  1 157         BCE   IFEA,0&X1,F                                 8  1157  B W64 0|0 F          9
172  1 165         BCE   IFEA,0&X1,E                                 8  1165  B W64 0|0 E          9
173  1 173         BCE   IFEA,0&X1,A                                 8  1173  B W64 0|0 A          9
174  1 181         BCE   SIGN,0&X1,&                                 8  1181  B U24 0|0 &          9
175  1 189         BCE   SIGN,0&X1,-                                 8  1189  B U24 0|0 -         10
176  1 197         BCE   SLASH,0&X1,@                                8  1197  B W36 0|0 @         10
177  1 205         C     0&X1,KZ                                      7  1205  C 0|0 M27           10
178  1 212         BL    NUMBER                                       5  1212  B Z04 T             10
179  1 217         BL    CHKCOD                                       5  1217  B Z98 T             10
180  1 222         BW    SYNTAX,FLAG1  NOT PRECEDED BY A NUMBER?      8  1222  V S58 M18 1         11
181  1 230         BCE   HOLRIT,0&X1,H  NUMBER, THE HOLLERITH        8  1230  B T06 0|0 H         11
182  1 238         SBR   X1                                           4  1238  H 089               11
183  1 242         BCE   XFLD,1&X1,X                                  8  1242  B S81 0|1 X         11
184  1 250         BCE   PFLD,1&X1,P                                  8  1250  B U79 0|1 P         11
185  1 258  SYNTAX B     MSG                                          4  1258  B 880               12
186  1 262         MCW   ERR15,223                                    7  1262  M M45 223           12
187  1 269  WMSG   W                                                  1  1269  2                   12
188  1 270         MZ    ABZONE,SEQCOD                                7  1270  Y M46 879           12
189  1 277         B     ENDFMT                                       4  1277  B !42               12
190         *
191         * X FORMAT CONTROL.  EMIT SBR X3,NUMBER&X3
192         *
193  1 281  XFLD   SW    8&X2                                         4  1281  , 0!8               12
194  1 285         SBR   X2                                           4  1285  H 094               12
195  1 289         LCA   BUMPX3                                       4  1289  L L83               13
196  1 293         MN    W3,0&X2                                      7  1293  D M26 0!0           13
197  1 300         MN                                                 1  1300  D                   13
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
198  1 301         MN                                                          1  1301  D                   13
199  1 302         B     ENDFLD                                                4  1302  B Y35               13
200         *
201         * HOLLERITH
202         *
203  1 306  HOLRIT SW    5&X2                                                  4  1306  , 0!5               13
204  1 310         CW                                                          1  1310  )                   13
205  1 311         SBR   X2                                                    4  1311  H 094               14
206  1 315         LCA   DOH&3,1&X2  EMIT CALL TO DO HOLLERITH ROUTINE         7  1315  L L76 0!1           14
207  1 322         S     KP1,W3                                                7  1322  S M20 M26           14
208  1 329         BM    SYNTAX,W3                                             8  1329  V S58 M26 K         14
209  1 337         MN    0&X1                                                  4  1337  D 0|0               14
210  1 341         SAR   X1                                                    4  1341  Q 089               14
211  1 345  MOVEH  MN    0&X1,2&X2  MOVE                                       7  1345  D 0|0 0!2           15
212  1 352         SBR   X2           CHARACTERS                             4  1352  H 094               15
213  1 356         MZ    0&X1,1&X2      OF HOLLERITH                          7  1356  Y 0|0 0!1           15
214  1 363         SAR   X1               FIELD WHILE                        4  1363  Q 089               15
215  1 367         SBR   SX1&6              REVERSING                          4  1367  H /21               15
216  1 371         CW    2&X2                 TO CORRECT                       4  1371  ) 0!2               15
217  1 375         S     KP1,W3                 ORDER                          7  1375  S M20 M26           15
218  1 382         BCE   SHORTH,0&X1,}                                         8  1382  B U09 0|0 } GMARK   16
219  1 390         BWZ   MOVEH,W3,B                                           8  1390  V T45 M26 B         16
220  1 398  HOLFIN SBR   X2,1&X2                                              7  1398  H 094 0!1           16
221  1 405         B     ENDFLD                                                4  1405  B Y35               16
222         *
223         * STATEMENT ENDS BEFORE HOLLERITH ENDS
224         *
225  1 409  SHORTH B     MSG                                                   4  1409  B 880               16
226  1 413         MCW   ERR45,231                                             7  1413  M M66 231           16
227  1 420         W     HOLFIN                                                4  1420  2 T98               17
228         *
229         * PLUS OR MINUS SIGN BEFORE NUMBER BEFORE P CODE
230         *
231  1 424  SIGN   MZ    0&X1,W3  MOVE SIGN TO WHERE THE NUMBER WILL BE        7  1424  Y 0|0 M26           17
232  1 431         SAR   X1                                                    4  1431  Q 089               17
233  1 435         B     NUMBER                                                4  1435  B Z04               17
234  1 439         C     X3,K20                                                7  1439  C 099 M69           17
235  1 446         BL    SYNTAX   SCALE FACTOR TOO BIG?                       5  1446  B S58 T             17
236  1 451         MN    X3,W3                                                 7  1451  D 099 M26           17
237  1 458         MN                                                          1  1458  D                   18
238  1 459         C     0&X1,KP                                               7  1459  C 0|0 M70           18
239  1 466         SAR   SX1&6                                                 4  1466  Q /21               18
240  1 470         SBR   X1                                                    4  1470  H 089               18
241  1 474         BU    SYNTAX   ERROR IF NOT P FIELD                        5  1474  B S58 /             18
242  1 479  PFLD   SBR   X2,7&X2                                              7  1479  H 094 0!7           18
243  1 486         LCA   W3       EMIT SCALE FACTOR                          4  1486  L M26               18
244  1 490         LCA   DOP&3    EMIT CALL TO P ROUTINE                     4  1490  L M07               19
245  1 494         B     ENDFLD                                                4  1494  B Y35               19
246         *
247         * LEFT PARENTHESIS
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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
248         *
249  1 498  LPAR   BW    DEEP,FLAG2                                     8  1498  V V69 M19 1         19
250  1 506         SW    FLAG2                                          4  1506  , M19               19
251  1 510  CONT   SW    8&X2                                           4  1510  , 0!8               19
252  1 514         SBR   X2                                            4  1514  H 094               19
253  1 518         CW    FLAG3                                          4  1518  ) N50               19
254  1 522         LCA   W3,0&X2                                       7  1522  L M26 0!0           20
255  1 529         LCA   DOLP&3                                        4  1529  L L87               20
256  1 533         SW    FLAG1                                          4  1533  , M18               20
257  1 537         B     SX1                                            4  1537  B /15               20
258         *
259         * RIGHT PARENTHESIS
260         *
261  1 541  RPAR   MN    0&X1                                           4  1541  D 0|0               20
262  1 545         SAR   SX1&6                                          4  1545  Q /21               20
263  1 549         SBR   *&7                                           4  1549  H V59               20
264  1 553         BCE   SAWGM,0,}                                     8  1553  B W12 000 } GMARK   21
265  1 561         BW    RPOK,FLAG2  SEEN A RIGHT PARENTHESIS?          8  1561  V V84 M19 1         21
266  1 569  DEEP   B     MSG                                            4  1569  B 880               21
267  1 573         MCW   ERR16,228                                      7  1573  M M92 228           21
268  1 580         B     WMSG                                           4  1580  B S69               21
269         *
270  1 584  RPOK   CW    FLAG2                                          4  1584  ) M19               21
271  1 588         SW    5&X2                                           4  1588  , 0!5               21
272  1 592         SBR   X2                                            4  1592  H 094               22
273  1 596         LCA   DORP&3                                        4  1596  L L91               22
274  1 600         MN    0&X1                                           4  1600  D 0|0               22
275  1 604         SAR   X1                                             4  1604  Q 089               22
276  1 608         B     ENDFLD                                         4  1608  B Y35               22
277         *
278         * SAW GM AFTER RIGHT PARENTHESIS
279         *
280  1 612  SAWGM  CW    5&X2                                           4  1612  ) 0!5               22
281  1 616         SBR   X2                                            4  1616  H 094               22
282  1 620         LCA   DOGM&3                                        4  1620  L M03               23
283  1 624         BW    DEEP,FLAG2                                     8  1624  V V69 M19 1         23
284  1 632         B     ENDFMT                                         4  1632  B !42               23
285         *
286         * SLASH FIELD.  SLASH WAS CONVERTED TO @ IN PHASE 2
287         *
288  1 636  SLASH  BW    *&5,FLAG1  NO NUMBER?                          8  1636  V W48 M18 1         23
289  1 644         B     SYNTAX     ERROR IF NUMBER                     4  1644  B S58               23
290  1 648         SW    5&X2                                           4  1648  , 0!5               23
291  1 652         SBR   X2                                            4  1652  H 094               23
292  1 656         LCA   DOSLSH&3  EMIT CALL TO SLASH ROUTINE           4  1656  L L95               24
293  1 660         B     SX1                                            4  1660  B /15               24
294         *
295         * I, F, E OR A FIELD
296         *
297  1 664  IFEA   SW    5&X2                                           4  1664  , 0!5               24
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
298  1 668          LCA   DOIFEA&3                                            4  1668  L L99               24
299  1 672          LCA   W3,8&X2                                            7  1672  L M26 0!8           24
300  1 679          MCW   0&X1                                               4  1679  M 0|0               24
301  1 683          SAR   X1                                                 4  1683  Q 089               24
302  1 687          B     NUMBER                                             4  1687  B Z04               25
303  1 691          ZA    X3,W3B                                             7  1691  ? 099 M95           25
304  1 698          SW    IFEAT&4                                            4  1698  , Y12               25
305  1 702          BCE   FFLD,5&X2,F                                        8  1702  B X33 0!5 F         25
306  1 710          BCE   IAFLD,5&X2,I                                       8  1710  B X72 0!5 I         25
307  1 718          BCE   IAFLD,5&X2,A                                       8  1718  B X72 0!5 A         25
308  1 726          S     KP4,W3B  EW.D FIELD, SUBTRACT FOUR FROM W FOR EXP  7  1726  S M96 M95           26
309  1 733  FFLD    CW    IFEAT&4  FW.D FIELD                                 4  1733  ) Y12               26
310  1 737          C     0&X1,KDOT                                          7  1737  C 0|0 M97           26
311  1 744          SAR   X1                                                 4  1744  Q 089               26
312  1 748          BU    SYNTAX  NUMBER NOT FOLLOWED BY DOT                 5  1748  B S58 /             26
313  1 753          B     NUMBER                                             4  1753  B Z04               26
314  1 757          S     X3,W3B  SUBTRACT D FROM W                          7  1757  S 099 M95           26
315  1 764          BM    WBIG,W3B                                           8  1764  V Y70 M95 K         27
316  1 772  IAFLD   BCE   FFLD2,5&X2,F  I OR A FIELD                        8  1772  B X87 0!5 F         27
317  1 780          A     KP4,X3                                             7  1780  A M96 099           27
318  1 787  FFLD2   SBR   X2,11&X2                                          7  1787  H 094 0J1           27
319  1 794          MZ    *-4,W3B                                            7  1794  Y X96 M95           27
320  1 801          LCA   W3B,0&X2                                          7  1801  L M95 0!0           28
321  1 808  IFEAT   BCE   TSTWID,IFEAT,C                                    8  1808  B Y27 Y08 C         28
322  1 816          SBR   X2,3&X2                                           7  1816  H 094 0!3           28
323  1 823          LCA   X3                                                 4  1823  L 099               28
324  1 827  TSTWID  BM    SYNTAX,W3B                                         8  1827  V S58 M95 K         28
325          *
326          * END OF FIELD
327          *
328  1 835  ENDFLD  SW    FLAG1  SET NO NUMBER FLAG                          4  1835  , M18               28
329  1 839  SKPCOM  C     0&X1,COMMA                                         7  1839  C 0|0 M98           29
330  1 846          SAR   SX1&6                                              4  1846  Q /21               29
331  1 850          SBR   X1                                                 4  1850  H 089               29
332  1 854          BE    SKPCOM  SKIP COMMAS                                5  1854  B Y39 S             29
333  1 859          SBR   X1,1&X1                                           7  1859  H 089 0|1           29
334  1 866          B     LOOP                                               4  1866  B /22               29
335          *
336          * W GT D FOR F FIELD, OR W+4 GT D FOR E FIELD
337          *
338  1 870  WBIG    A     X3,W3B                                             7  1870  A 099 M95           29
339  1 877          A     K4,W3B                                             7  1877  A M99 M95           30
340  1 884          MN    W3B,X3                                             7  1884  D M95 099           30
341  1 891          MN                                                       1  1891  D                   30
342  1 892          MN                                                       1  1892  D                   30
343  1 893          MCW   KZ3,W3B                                            7  1893  M N02 M95           30
344  1 900          B     FFLD2                                              4  1900  B X87               30
345          *
346          * PROBABLY A DIGIT.  MAKE SURE.  THEN PUT INTO X3.
347          *
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
348  1 904  NUMBER  SBR   NUMBRX&3                                          4  1904  H Z97              30
349  1 908          S     X3&1    CLEAR X3                                 4  1908  S 100              31
350  1 912          C     0&X1,K0                                          7  1912  C 0|0 N03          31
351  1 919          BH    SYNTAX  0 GT CHAR, Z LT CHAR                    5  1919  B S58 U            31
352  1 924  NUMBRL  MN    0&X1,X3                                          7  1924  D 0|0 099          31
353  1 931          SAR   X1                                             4  1931  Q 089              31
354  1 935          C     0&X1,K0                                          7  1935  C 0|0 N03          31
355  1 942          BH    NODIG   NOT A DIGIT, MUST BE DONE               5  1942  B Z77 U            31
356  1 947          C     X3,K133  IS THE NUMBER TOO BIG?                 7  1947  C 099 N06          32
357  1 954          BL    SYNTAX                                           5  1954  B S58 T            32
358  1 959          MN    X3-1,X3-2  SHIFT LEFT TO REVERSE                7  1959  D 098 097          32
359  1 966          MN    X3,X3-1      DIGITS TO CORRECT ORDER             7  1966  D 099 098          32
360  1 973          B     NUMBRL   LOOK FOR ANOTHER DIGIT                  4  1973  B Z24              32
361  1 977  NODIG   C     K134,X3  IS THE NUMBER TOO BIG?                  7  1977  C N09 099          32
362  1 984          BH    SYNTAX                                           5  1984  B S58 U            33
363  1 989          BE    SYNTAX                                           5  1989  B S58 S            33
364  1 994  NUMBRX  B     0                                                4  1994  B 000              33
365                *
366                * CHECK THE FORMAT CODE FOLLOWING A NUMBER
367                *
368  1 998  CHKCOD  ZA    X3,W3  SAVE NUMBER                               7  1998  ? 099 M26          33
369  2 005          SW    TEST&7                                           4  2005  , !30              33
370  2 009          MCW   0&X1,TEST&7                                      7  2009  M 0|0 !30          33
371  2 016          CW    TEST&7,FLAG1                                     7  2016  ) !30 M18          33
372  2 023  TEST    BCE   CODEOK,FMTCOD,X                                 8  2023  B /29 N17 X        34
373  2 031          CHAIN 7                                                                 MACRO
374                BCE                                                    1  2031  B           GEN    34
375                BCE                                                    1  2032  B           GEN    34
376                BCE                                                    1  2033  B           GEN    34
377                BCE                                                    1  2034  B           GEN    34
378                BCE                                                    1  2035  B           GEN    34
379                BCE                                                    1  2036  B           GEN    34
380                BCE                                                    1  2037  B           GEN    35
381  2 038          B     SYNTAX                                           4  2038  B S58              35
382                *
383  2 042  ENDFMT  MCW   83,X3                                            7  2042  M 083 099          35
384  2 049          BWZ   ENDERR,SEQCOD,B                                  8  2049  V K60 879 B        35
385  2 057          C     0&X3,SEMIC  SEMICOLON BELOW NUMBER TABLE GONE?   7  2057  C 0?0 872          35
386  2 064          BU    TOOBIG                                           5  2064  B 838 /            35
387  2 069  ENDFM2  LCA   0&X2,0&X3                                        7  2069  L 0!0 0?0          35
388  2 076          SAR   X2                                             4  2076  Q 094              36
389  2 080          C     0&X3                                             4  2080  C 0?0              36
390  2 084          SAR   X3                                             4  2084  Q 099              36
391  2 088          CW    1&X2                                             4  2088  ) 0!1              36
392  2 092          C     X2,SX2B                                          7  2092  C 094 M23          36
393  2 099          BU    ENDFM2                                           5  2099  B !69 /            36
394  2 104          SBR   SX3,0&X3                                        7  2104  H 875 0?0          36
395  2 111          CW    0&X2                                             4  2111  ) 0!0              37
396  2 115          CW                                                     1  2115  )                  37
397  2 116          MCW                                                    1  2116  M                  37
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
398  2 117          SAR   X2                                          4  2117  Q 094               37
399  2 121          CW    1&X2                                        4  2121  ) 0!1               37
400  2 125          BW    ENDER2,FLAG3                                8  2125  V K48 N50 1         37
401  2 133          BCE   ENDER2,*&6,  WAS X2 ORIGINALLY BLANK?      8  2133  B K48 J46           37
402  2 141  SX2     SBR   X2,0                                        7  2141  H 094 000           38
403  2 148          CW    FLAG4                                       4  2148  ) N18               38
404  2 152          SBR   SX3B&6,1&X3                                7  2152  H L46 0?1           38
405  2 159  ENDER4  MN    0&X2                                        4  2159  D 0!0               38
406  2 163          MN                                                1  2163  D                   38
407  2 164          MN                                                1  2164  D                   38
408  2 165          SAR   X3                                          4  2165  Q 099               38
409  2 169          MN    0&X3,*&15                                   7  2169  D 0?0 J90           39
410  2 176          MZ    0&X3,*&8                                    7  2176  Y 0?0 J90           39
411  2 183          BCE   IOSTMT,IOCODE,X                            8  2183  B K97 N23 X         39
412  2 191          CHAIN 4                                                                 MACRO
413                 BCE                                               1  2191  B             GEN   39
414                 BCE                                               1  2192  B             GEN   39
415                 BCE                                               1  2193  B             GEN   39
416                 BCE                                               1  2194  B             GEN   39
417  2 195          BW    ENDER5,FLAG4                                8  2195  V K19 N18 1         40
418  2 203          B     MSG                                         4  2203  B 880               40
419  2 207          MCW   ERR17,232                                   7  2207  M N49 232           40
420  2 214          W                                                 1  2214  2                   40
421  2 215          B     ENDER6                                      4  2215  B K75               40
422  2 219  ENDER5  MCW   SX3,X3                                      7  2219  M 875 099           40
423  2 226          BWZ   ENDER6,SEQCOD,B                            8  2226  V K75 879 B         40
424  2 234  ENDER3  MCW   X3,83                                       7  2234  M 099 083           41
425  2 241          MCW   SEMIC,0&X3                                 7  2241  M 872 0?0           41
426  2 248  ENDER2  C     0&X1                                        4  2248  C 0|0               41
427  2 252          SAR   X1                                          4  2252  Q 089               41
428  2 256          B     NEXT                                        4  2256  B 995               41
429         *
430  2 260  ENDERR  MCW   X2,X3                                      7  2260  M 094 099           41
431  2 267          SW    FLAG3                                       4  2267  , N50               41
432  2 271          B     ENDFM2                                      4  2271  B !69               42
433  2 275  ENDER6  MCW   83,X3                                       7  2275  M 083 099           42
434  2 282          LCA   KDOT,0&X3                                  7  2282  L M97 0?0           42
435  2 289          SBR   X3                                          4  2289  H 099               42
436  2 293          B     ENDER3                                      4  2293  B K34               42
437         *
438  2 297  IOSTMT  C     0&X3                                        4  2297  C 0?0               42
439  2 301          SAR   X2                                          4  2301  Q 094               42
440  2 305          BWZ   *&5,2&X3,B                                  8  2305  V L17 0?2 B         43
441  2 313          B     IOSTME                                      4  2313  B L61               43
442  2 317          C     0&X2,FMTLAB                                 7  2317  C 0!0 M17           43
443  2 324          BU    IOSTME                                      5  2324  B L61 /             43
444  2 329          SW    FLAG4                                       4  2329  , N18               43
445  2 333          MA    NEGARY,SX3B&6                               7  2333  # 163 L46           43
446  2 340  SX3B    SBR   0&X2,0                                      7  2340  H 0!0 000           44
447  2 347          MZ    KB1,2&X3                                    7  2347  Y M08 0?2           44
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

448  2 354          MA    ARYSIZ,SX3B&6                                       7  2354  # 160 L46           44
449  2 361  IOSTME  C     0&X2                                                4  2361  C 0!0               44
450  2 365          SAR   X2                                                  4  2365  Q 094               44
451  2 369          B     ENDER4                                              4  2369  B J59               44
452          *
453          * VECTORS TO FORMAT CONVERSION ROUTINES
454          *
455  2 373  DOH     B     2328       DO HOLLERITH                             4  2373  B L28               44
456  2 383  BUMPX3  DCW   @H0990&0@  BUMPS X3, FOR X FORMAT                   7  2383                      45
457  2 384  DOLP    B     2152       DO LEFT PARENTHESIS                      4  2384  B J52               45
458  2 388  DORP    B     2185       DO RIGHT PARENTHESIS                     4  2388  B J85               45
459  2 392  DOSLSH  B     2208       DO / -- NEWLINE                          4  2392  B K08               45
460  2 396  DOIFEA  B     2385       I, F, E OR A FIELD                       4  2396  B L85               45
461  2 400  DOGM    B     2223       DO GM -- END OF FORMAT                   4  2400  B K23               45
462  2 404  DOP     B     2310       DO P -- SCALE FACTOR                     4  2404  B L10               45
463          *
464          * DATA
465          *
466  2 408  KB1     DCW   #1                                                  1  2408                      46
467  2 414  LISTR1  DCW   @LISTR1@                                            6  2414                      46
468  2 417  FMTLAB  DCW   #3                                                  3  2417                      46
469  2 418  FLAG1   DCW   #1  CLEARED WHEN A NUMBER IS PROCESSED              1  2418                      46
470  2 419  FLAG2   DCW   #1  SET WHEN LEFT PARENTHESIS IS PROCESSED          1  2419                      46
471  2 420  KP1     DCW   &1                                                  1  2420                      46
472  2 423  SX2B    DCW   #3                                                  3  2423                      46
473  2 426  W3      DCW   #3                                                  3  2426                      47
474  2 427  KZ      DCW   @Z@                                                 1  2427                      47
475  2 445  ERR15   DCW   @15 - FORMAT SYNTAX@                              18  2445                      47
476  2 446  ABZONE  DCW   @A@                                                 1  2446                      47
477  2 466  ERR45   DCW   @45 - HOLLERITH COUNT@                            20  2466                      48
478  2 469  K20     DCW   020                                                 3  2469                      48
479  2 470  KP      DCW   @P@                                                 1  2470                      48
480  2 492  ERR16   DCW   @16 - PARENTHESIS ERROR@                           22  2492                      49
481  2 495  W3B     DCW   #3                                                  3  2495                      49
482  2 496  KP4     DCW   &4                                                  1  2496                      49
483  2 497  KDOT    DCW   @.@                                                 1  2497                      49
484  2 498  COMMA   DCW   @,@                                                 1  2498                      49
485  2 499  K4      DCW   4                                                   1  2499                      49
486  2 502  KZ3     DCW   000                                                 3  2502                      49
487  2 503  K0      DCW   0                                                   1  2503                      50
488  2 506  K133    DCW   133                                                 3  2506                      50
489  2 509  K134    DCW   134                                                 3  2509                      50
490  2 517  FMTCOD  DCW   @PAXHIFE%@                                         8  2517                      50
491  2 518  FLAG4   DCW   #1                                                  1  2518                      50
492  2 523  IOCODE  DCW   @56ULP@  STMT CODE FOR FORMATTED I/O STMT           5  2523                      50
493  2 549  ERR17   DCW   @17 - DOUBLY DEFINED FORMAT@                       26  2549                      51
494  2 550  FLAG3   DCW   #1  SET IF ERROR                                    1  2550                      51
495  2 598          DC    #48                                                48  2598                      53
496  2 599  GMWM    DCW   @}@                                                 1  2599            GMARK     53
497                 ORG   201                                                       0201
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

498    203         DSA   LOADDD    LOAD ADDRESS FOR CARD-TO-TAPE PROGRAM         3  0203  980                 54
499                EX    BEGINN                                                           B 980               55
500                END                                                                    / 000 080
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
ABZONE	2446	ARYSIZ	160	BEGINN	980	BUMPX3	2383	CHKCOD	1998	CLEARL	707	CLRBOT	833
CODEOK	1129	COMMA	2498	CONT	1510	DEEP	1569	DOGM	2400	DOH	2373	DOIFEA	2396
DOLP	2384	DONE	1021	DOP	2404	DORP	2388	DOSLSH	2392	ENDER2	2248	ENDER3	2234
ENDER4	2159	ENDER5	2219	ENDER6	2275	ENDERR	2260	ENDFLD	1835	ENDFM2	2069	ENDFMT	2042
ERR15	2445	ERR16	2492	ERR17	2549	ERR45	2466	FFLD	1733	FFLD2	1787	FLAG1	2418
FLAG2	2419	FLAG3	2550	FLAG4	2518	FMTCOD	2517	FMTLAB	2417	FORMAT	1062	GMWM	2599
HOLFIN	1398	HOLRIT	1306	IAFLD	1772	IFEA	1664	IFEAT	1808	IOCODE	2523	IOSTME	2361
IOSTMT	2297	K0	2503	K133	2506	K134	2509	K20	2469	K4	2499	KB1	2408
KDOT	2497	KP	2470	KP1	2420	KP4	2496	KZ	2427	KZ3	2502	LISTR1	2414
LOADDD	980	LOADNX	700	LOADXX	793	LOOP	1122	LPAR	1498	MOVEH	1345	MSG	880
NEGARY	163	NEXT	995	NODIG	1977	NUMBER	1904	NUMBRL	1924	NUMBRX	1994	PFLD	1479
PHASID	110	RPAR	1541	RPOK	1584	SAWGM	1612	SEMIC	872	SEQCOD	879	SHORTH	1409
SIGN	1424	SKPCOM	1839	SLASH	1636	SNAPSH	333	SX1	1115	SX2	2141	SX2B	2423
SX3	875	SX3B	2340	SYNTAX	1258	TEST	2023	TOOBIG	838	TPREAD	780	TSTWID	1827
W3	2426	W3B	2495	WBIG	1870	WMSG	1269	X1	89	X2	94	X3	99
XFLD	1281												