```
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 -- ARITH PHASE ONE -- PHASE 33                          PAGE    1

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

 101               JOB   FORTRAN COMPILER -- ARITH PHASE ONE -- PHASE 33
 102               CTL   6611
 103         *
 104         * THIS IS A HOUSEKEEPING PHASE.  THE UNARY MINUS (NEGATE) AND
 105         * EXPONENTIATION OPERATORS ARE CHANGED TO UNIQUE ONE-CHARACTER
 106         * SYMBOLS (NEGATE BECOMES COMMA, EXPONENTIATE BECOMES DOT).
 107         * ERROR CHECKING ALSO TAKES PLACE.
 108         *
 109         * ON ENTRY, X1 IS THE TOP OF THE PREFIX OF CODE IN LOW CORE,
 110         * X2 IS X1&1, AND X3 IS TWO BELOW THE GM BELOW THE I/O STRINGS,
 111         * FORMATS AND CONSTANTS IN HIGH CORE.
 112         *
 113         X1     EQU   89                                                      0089
 114         X2     EQU   94                                                      0094
 115         X3     EQU   99                                                      0099
 116         *
 117         * STUFF IN THE RESIDENT AREA
 118         *
 119         PHASID EQU   110  PHASE ID, FOR SNAPSHOT DUMPS                      0110
 120         SERIES EQU   117  NEED SERIES ROUTINE IF NO WM                      0117
 121         SINCOS EQU   118  SAW SINF OR COSF IF NO WM                         0118
 122         SAWABS EQU   122  SAW ABSF IF NO WM                                 0122
 123         SAWNEG EQU   123  SAW NEGATION OPERATOR (UNARY MINUS) IF NO WM      0123
 124         GLOBER EQU   184  GLOBAL ERROR FLAG -- WM MEANS ERROR              0184
 125         SNAPSH EQU   333  CORE DUMP SNAPSHOT                                0333
 126         LOADNX EQU   700  LOAD NEXT OVERLAY                                 0700
 127         CLEARL EQU   707  CS AT START OF OVERLAY LOADER                     0707
 128         *
 129               ORG   838                                                           0838
 130         LOADDD EQU   *&1          LOAD ADDRESS                              0838
 131    838  BEGINN SBR   SX3,2&X3                                            7  0838  H M53 0?2           4
 132    845         SW    GM                                                 4  0845  , J60               4
 133    849         MCW   0&X1,CODSEQ                                        7  0849  M 0|0 M47           4
 134    856         BCE   EXPR,CODSEQ-3,R                                    8  0856  B 943 M44 R         4
 135    864         BCE   EXPR,CODSEQ-3,E                                    8  0864  B 943 M44 E         4
 136    872         MCW   DOT,X2                                             7  0872  M M43 094           5
 137    879         B     DONE                                               4  0879  B 920               5
 138    883  LOOP   MCW   0&X1,CODSEQ                                        7  0883  M 0|0 M47           5
 139    890         SBR   SX3B,0&X3                                          7  0890  H M50 0?0           5
 140    897         BCE   EXPR,CODSEQ-3,R                                    8  0897  B 943 M44 R         5
 141    905         BCE   EXPR,CODSEQ-3,E                                    8  0905  B 943 M44 E         6
 142    913         MCW   SX3,X2                                             7  0913  M M53 094           6
 143    920  DONE   BSS   SNAPSH,C                                           5  0920  B 333 C             6
 144    925         SBR   CLEARL&3,GMWM                                      7  0925  H 710 P68           6
 145    932         LCA   ARITH2,PHASID                                      7  0932  L M62 110           6
 146    939         B     LOADNX                                             4  0939  B 700               6
 147         *
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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
148         * EITHER ASSIGNMENT OR ARITHMETIC IF
149         *
150    943  EXPR   LCA   0&X1,0&X3  MOVE PREFIX UP                    7  0943  L 0|0 0?0           7
151    950         SAR   X1                                          4  0950  Q 089               7
152    954         C     0&X3                                        4  0954  C 0?0               7
153    958         SAR   X3                                          4  0958  Q 099               7
154    962         BWZ   *&5,CODSEQ,2                                8  0962  V 974 M47 2         7
155    970         B     *&9                                         4  0970  B 982               7
156    974         BWZ   EXPR2,CODSEQ-2,2                            8  0974  V 998 M45 2         7
157    982         MCW   CODSEQ,X2                                   7  0982  M M47 094           8
158    989         MN    0&X2,CODSEQ                                 7  0989  D 0!0 M47           8
159    996         MN                                                1  0996  D                   8
160    997         MN                                                1  0997  D                   8
161    998  EXPR2  C     0&X1                                        4  0998  C 0|0               8
162  1 002         SAR   SX1                                         4  1002  Q M65               8
163  1 006         BCE   ASG,CODSEQ-3,R                              8  1006  B |85 M44 R         8
164         *
165         * STATEMENT IS ARITHMETIC IF
166         *
167  1 014         C     0&X1,KB10  MOVE X1 DOWN                     7  1014  C 0|0 M75           9
168  1 021         SAR   X1           BY TEN                         4  1021  Q 089               9
169  1 025         SW    1&X1                                        4  1025  , 0|1               9
170  1 029         LCA   10&X1,0&X3  MOVE UP LABELS                  7  1029  L 0/0 0?0           9
171  1 036         SAR   X1                                          4  1036  Q 089               9
172  1 040         C     0&X3                                        4  1040  C 0?0               9
173  1 044         SAR   X3                                          4  1044  Q 099               9
174  1 048         CW    1&X1,1&X3                                   7  1048  ) 0|1 0?1          10
175  1 055         LCA   GM                                          4  1055  L J60              10
176  1 059         LCA   KIFBOT                                      4  1059  L M79              10
177  1 063         SBR   X3                                          4  1063  H 099              10
178  1 067         CW    1&X3,5&X3                                   7  1067  ) 0?1 0?5          10
179  1 074         SBR   SX1B,0&X1                                   7  1074  H M82 0|0          10
180  1 081         B     EXPR3                                       4  1081  B /43              10
181         *
182         * STATEMENT IS ASSIGNMENT
183         *
184  1 085  ASG    SBR   X2,1&X1                                     7  1085  H 094 0|1           11
185  1 092         BCE   MSG23,0&X1,#  EQUAL SIGN IS FIRST           8  1092  B !01 0|0 #         11
186  1 100         SBR   SX1B,0&X1                                   7  1100  H M82 0|0           11
187  1 107  GETEQ  BCE   GOTEQ,0&X1,#                                8  1107  B /31 0|0 #         11
188  1 115         BCE   MSG23,0&X1,}  NO EQUAL SIGN AT ALL         8  1115  B !01 0|0 } GMARK  11
189  1 123         SBR   X1                                          4  1123  H 089              12
190  1 127         B     GETEQ                                       4  1127  B /07              12
191  1 131  GOTEQ  B     SUBCHK                                      4  1131  B !53              12
192  1 135  ASGL   MN    0&X1                                        4  1135  D 0|0              12
193  1 139         SAR   X1                                          4  1139  Q 089              12
194  1 143  EXPR3  SBR   X2,1&X1                                     7  1143  H 094 0|1           12
195  1 150         SBR   SX1C                                        4  1150  H M85              12
196  1 154  OPCHKL MN    0&X1,OPCHK&7                                7  1154  D 0|0 /79          13
197  1 161         MZ    0&X1,OPCHK&7                                7  1161  Y 0|0 /79          13
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
198  1 168          SAR   X1                                                 4  1168  Q 089             GEN     13
199  1 172  OPCHK   BCE   GOTOP,OPRATR,0  &-@*#%) OR GM                      8  1172  B /91 M93 0       GEN     13
200  1 180          CHAIN 7                                                                            MACRO
201                 BCE                                                      1  1180  B                 GEN     13
202                 BCE                                                      1  1181  B                 GEN     13
203                 BCE                                                      1  1182  B                 GEN     13
204                 BCE                                                      1  1183  B                 GEN     14
205                 BCE                                                      1  1184  B                 GEN     14
206                 BCE                                                      1  1185  B                 GEN     14
207                 BCE                                                      1  1186  B                 GEN     14
208  1 187          B     OPCHKL                                             4  1187  B /54             GEN     14
209  1 191  GOTOP   SBR   X1,1&X1                                           7  1191  H 089 0|1         GEN     14
210  1 198          BCE   MINUS,0&X1,-                                       8  1198  B V98 0|0 -       GEN     14
211  1 206          BCE   LPAREN,0&X1,%                                      8  1206  B W41 0|0 %       GEN     15
212  1 214          BCE   STAR,0&X1,*                                        8  1214  B U31 0|0 *       GEN     15
213  1 222          BCE   PLUS,0&X1,&                                        8  1222  B V44 0|0 &       GEN     15
214  1 230          BCE   CHK27,0&X1,@  WAS ORIGINALLY SLASH                8  1230  B U46 0|0 @       GEN     15
215  1 238          BCE   ASGL,0&X1,#                                        8  1238  B /35 0|0 #       GEN     16
216  1 246          BCE   RPAREN,0&X1,)                                      8  1246  B T39 0|0 )       GEN     16
217  1 254          MN    1&X1,OPCHK2&7                                      7  1254  D 0|1 S75         GEN     16
218  1 261          MZ    1&X1,OPCHK2&7                                      7  1261  Y 0|1 S75         GEN     16
219  1 268  OPCHK2  BCE   MSG27,OPRAT2,0  &-*@.#,                           8  1268  B J22 N00 0       GEN     16
220  1 276          CHAIN 6                                                                            MACRO
221                 BCE                                                      1  1276  B                 GEN     16
222                 BCE                                                      1  1277  B                 GEN     17
223                 BCE                                                      1  1278  B                 GEN     17
224                 BCE                                                      1  1279  B                 GEN     17
225                 BCE                                                      1  1280  B                 GEN     17
226                 BCE                                                      1  1281  B                 GEN     17
227  1 282          BCE   RESTR2,1&X1,                                       8  1282  B T10 0|1         GEN     17
228  1 290          BCE   RESTR2,1&X1,%                                      8  1290  B T10 0|1 %       GEN     17
229  1 298          BCE   RESTR2,1&X1,)                                      8  1298  B T10 0|1 )       GEN     18
230  1 306          B     SUBCHK                                             4  1306  B !53             GEN     18
231  1 310  RESTR2  MCW   SX1B,X2                                           7  1310  M M82 094         GEN     18
232  1 317          LCA   0&X2,0&X3                                          7  1317  L 0!0 0?0         GEN     18
233  1 324          SBR   X3                                                 4  1324  H 099             GEN     18
234  1 328          MCW   SX1,X1                                             7  1328  M M65 089         GEN     18
235  1 335          B     LOOP                                               4  1335  B 883             GEN     19
236         *
237  1 339  RPAREN  MCW   0&X1,RPARSV                                       7  1339  M 0|0 N02         GEN     19
238  1 346          MCW   RPARSV-1,*&8  CHAR AFTER RIGHT PARENTHESIS         7  1346  M N01 T60         GEN     19
239  1 353          BCE   RPAR2,OPRAT3,0  &*@-})  INCLUDES GM               8  1353  B T78 N08 0       GEN     19
240  1 361          CHAIN 5                                                                            MACRO
241                 BCE                                                      1  1361  B                 GEN     19
242                 BCE                                                      1  1362  B                 GEN     19
243                 BCE                                                      1  1363  B                 GEN     19
244                 BCE                                                      1  1364  B                 GEN     20
245                 BCE                                                      1  1365  B                 GEN     20
246  1 366          BCE   RPAR2,RPARSV-1,#                                   8  1366  B T78 N01 #       GEN     20
247  1 374          B     MSG27                                              4  1374  B J22             GEN     20
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
248  1 378  RPAR2   MN    1&X1,OPCHK4&7                                7  1378  D 0|1 T99          20
249  1 385          MZ    1&X1,OPCHK4&7                                7  1385  Y 0|1 T99          20
250  1 392  OPCHK4  BCE   MSG27,OPRAT4,0  &-*.@ %,                     8  1392  B J22 N16 0        20
251  1 400          CHAIN 7                                                                MACRO
252                 BCE                                                1  1400  B            GEN   21
253                 BCE                                                1  1401  B            GEN   21
254                 BCE                                                1  1402  B            GEN   21
255                 BCE                                                1  1403  B            GEN   21
256                 BCE                                                1  1404  B            GEN   21
257                 BCE                                                1  1405  B            GEN   21
258                 BCE                                                1  1406  B            GEN   21
259  1 407          BCE   ASGL,1&X1,#                                  8  1407  B /35 0|1 #        22
260  1 415          BCE   ASGL,1&X1,)                                  8  1415  B /35 0|1 )        22
261  1 423          B     SUBCHK                                       4  1423  B !53              22
262  1 427          B     ASGL                                         4  1427  B /35              22
263          *
264          * ASTERISK
265          *
266  1 431  STAR    MCW   0&X1,STAR2                                   7  1431  M 0|0 N18          22
267  1 438          BCE   EXPON,STAR2-1,*                             8  1438  B V13 N17 *        22
268          * SLASH ORIGINALLY, NOW @
269  1 446  CHK27   BCE   MSG27,1&X1,#                                 8  1446  B J22 0|1 #        23
270  1 454          BCE   MSG27,1&X1,%                                 8  1454  B J22 0|1 %        23
271  1 462          BCE   MSG27,1&X1,                                  8  1462  B J22 0|1          23
272  1 470  CHK31   MN    1&X1,OPCHK5&7                                7  1470  D 0|1 U91          23
273  1 477          MZ    1&X1,OPCHK5&7                                7  1477  Y 0|1 U91          23
274  1 484  OPCHK5  BCE   MSG31,OPRAT5,0  &-@*.,                     8  1484  B J61 N24 0        24
275  1 492          CHAIN 5                                                                MACRO
276                 BCE                                                1  1492  B            GEN   24
277                 BCE                                                1  1493  B            GEN   24
278                 BCE                                                1  1494  B            GEN   24
279                 BCE                                                1  1495  B            GEN   24
280                 BCE                                                1  1496  B            GEN   24
281  1 497          BCE   ASGL,1&X1,)                                  8  1497  B /35 0|1 )        24
282  1 505          B     SUBCHK                                       4  1505  B !53              25
283  1 509          B     ASGL                                         4  1509  B /35              25
284          *
285          * TWO ASTERISKS IN A ROW
286          *
287  1 513  EXPON   MN    0&X1                                         4  1513  D 0|0              25
288  1 517          MN                                                 1  1517  D                  25
289  1 518          SAR   X1                                           4  1518  Q 089              25
290  1 522          MCW   DOT,2&X1  REPLACE ** BY DOT                  7  1522  M M43 0|2          25
291  1 529          LCA   0&X1                                         4  1529  L 0|0              25
292  1 533          SBR   X1,2&X1                                      7  1533  H 089 0|2          26
293  1 540          B     CHK27                                        4  1540  B U46              26
294          *
295          * PLUS SIGN
296          *
297  1 544  PLUS    BCE   IGNORE,1&X1,#  IS PLUS                       8  1544  B V72 0|1 #        26
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD

298  1 552          BCE   IGNORE,1&X1,%    SIGN                             8  1552  B V72 0|1 %         26
299  1 560          BCE   IGNORE,1&X1,       UNARY?                         8  1560  B V72 0|1           26
300  1 568          B     CHK31                                             4  1568  B U70               26
301  1 572  IGNORE  MN    0&X1                                              4  1572  D 0|0               27
302  1 576          SAR   X1                                                4  1576  Q 089               27
303  1 580          LCA   0&X1,1&X1  MOVE UP, CLOBBERING PLUS SIGN          7  1580  L 0|0 0|1           27
304  1 587          SBR   X1,1&X1                                           7  1587  H 089 0|1           27
305  1 594          B     EXPR3                                             4  1594  B /43               27
306          *
307          * MINUS SIGN
308          *
309  1 598  MINUS   BCE   NEGATE,1&X1,#                                     8  1598  B W26 0|1 #         27
310  1 606          BCE   NEGATE,1&X1,%                                     8  1606  B W26 0|1 %         28
311  1 614          BCE   NEGATE,1&X1,                                      8  1614  B W26 0|1           28
312  1 622          B     CHK31                                             4  1622  B U70               28
313          *
314  1 626  NEGATE  MCW   COMMA,0&X1                                       7  1626  M N25 0|0           28
315  1 633          CW    SAWNEG                                            4  1633  ) 123               28
316  1 637          B     ASGL                                              4  1637  B /35               28
317          *
318          * LEFT PARENTHESIS
319          *
320  1 641  LPAREN  BCE   FUNC,1&X1,F  MAYBE A FUNCTION                     8  1641  B W83 0|1 F         29
321  1 649          MN    1&X1,LPARC&7                                      7  1649  D 0|1 W70           29
322  1 656          MZ    1&X1,LPARC&7                                      7  1656  Y 0|1 W70           29
323  1 663  LPARC   BCE   ASGL,OPRAT6,0  &-*@ #%,.                         8  1663  B /35 N34 0         29
324  1 671          CHAIN 8                                                                 MACRO
325                 BCE                                                   1  1671  B           GEN     29
326                 BCE                                                   1  1672  B           GEN     29
327                 BCE                                                   1  1673  B           GEN     29
328                 BCE                                                   1  1674  B           GEN     30
329                 BCE                                                   1  1675  B           GEN     30
330                 BCE                                                   1  1676  B           GEN     30
331                 BCE                                                   1  1677  B           GEN     30
332                 BCE                                                   1  1678  B           GEN     30
333  1 679          B     MSG27                                             4  1679  B J22               30
334          *
335          * LEFT PARENTHESIS FOLLOWS F, MAYBE A FUNCTION
336          *
337  1 683  FUNC    MCW   X2,SX2                                           7  1683  M 094 N37           30
338  1 690          MCW   SX1C,X2                                         7  1690  M M85 094           31
339  1 697          MN    0&X2                                            4  1697  D 0!0               31
340  1 701          SAR   X2                                              4  1701  Q 094               31
341  1 705          SW    0&X1                                            4  1705  , 0|0               31
342  1 709          SBR   SX1C,2&X1                                       7  1709  H M85 0|2           31
343  1 716          C     SX1C,X2                                         7  1716  C M85 094           31
344  1 723          BE    MSG27                                           5  1723  B J22 S             31
345  1 728          SBR   SX1C,3&X1                                       7  1728  H M85 0|3           32
346  1 735          C     SX1C,X2                                         7  1735  C M85 094           32
347  1 742          BE    MSG27                                           5  1742  B J22 S             32
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
348  1 747         MCW   X3,SX3C                                             7  1747  M 099 N40           32
349  1 754         MCW   X1,SX1D                                             7  1754  M 089 N43           32
350  1 761         SBR   X1,SINCOS                                           7  1761  H 089 118           33
351  1 768         SBR   X3,FNCLST                                           7  1768  H 099 M41           33
352  1 775  FUNCL  BCE   NOTFNC,0&X3,*  SEARCH FUNCTION NAME TABLE           8  1775  B Y18 0?0 *         33
353  1 783         SBR   X3                                                  4  1783  H 099               33
354  1 787         C     0&X3,0&X2                                           7  1787  C 0?0 0!0           33
355  1 794         BE    GOTFNC                                              5  1794  B Y83 S             33
356  1 799         C     0&X3                                                4  1799  C 0?0               34
357  1 803         SAR   X3                                                  4  1803  Q 099               34
358  1 807         SBR   X1,1&X1                                            7  1807  H 089 0|1           34
359  1 814         B     FUNCL                                               4  1814  B X75               34
360         *
361         * NAME ENDING IN F AND FOLLOWED BY LEFT PARENTHESIS
362         * IS NOT IN THE FUNCTION TABLE
363         *
364  1 818  NOTFNC CS    332                                                 4  1818  / 332               34
365  1 822         CS                                                        1  1822  /                   34
366  1 823         SW    GLOBER                                              4  1823  , 184               34
367  1 827         MN    CODSEQ,249                                          7  1827  D M47 249           35
368  1 834         MN                                                        1  1834  D                   35
369  1 835         MN                                                        1  1835  D                   35
370  1 836         MCW   ERR29                                               4  1836  M N89               35
371  1 840         W                                                         1  1840  2                   35
372  1 841         BCV   *&5                                                 5  1841  B Y50 @             35
373  1 846         B     *&3                                                 4  1846  B Y52               35
374  1 850         CC    1                                                   2  1850  F 1                 36
375  1 852         B     RESTRT                                              4  1852  B !35               36
376         *
377         * NEED SERIES FOR UNDEFINED FUNCTION, SIN, COS, LOG, EXP, ATAN
378         *
379  1 856  GETSER CW    SERIES                                              4  1856  ) 117               36
380  1 860         B     FNC2                                                4  1860  B Z26               36
381         *
382         * SIN AND COS ARE THE SAME
383         *
384  1 864  COSF   CW    SINCOS                                              4  1864  ) 118               36
385  1 868         B     GETSER                                              4  1868  B Y56               36
386         *
387         * NEED NEGATE FOR ABS
388         *
389  1 872  ABSF   CW    SAWABS,SAWNEG  ABSF NEEDS NEGATION                  7  1872  ) 122 123           36
390  1 879         B     FNC2                                                4  1879  B Z26               37
391         *
392  1 883  GOTFNC SW    1&X3                                                4  1883  , 0?1               37
393  1 887         BCE   COSF,1&X3,C  COSF                                   8  1887  B Y64 0?1 C         37
394  1 895         BCE   ABSF,1&X3,A  ABSF                                   8  1895  B Y72 0?1 A         37
395  1 903         CW    0&X1                                                4  1903  ) 0|0               37
396  1 907         MCW   1&X3,*&8                                            7  1907  M 0?1 Z21           37
397  1 914         BCE   GETSER,SGECT,0  SIN LOG EXP COS ATAN               8  1914  B Y56 N94 0         38
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD

398  1 922         CHAIN 4                                                                              MACRO
399                BCE                                                          1  1922  B           GEN     38
400                BCE                                                          1  1923  B           GEN     38
401                BCE                                                          1  1924  B           GEN     38
402                BCE                                                          1  1925  B           GEN     38
403  1 926  FNC2   BCE   INTFNC,0&X2,X  INTEGER FUNCTION RESULT?                8  1926  B Z89 0!0 X         38
404  1 934  FNC3   MCW   1&X3,0&X2  MOVE FUNCTION CODE                          7  1934  M 0?1 0!0           38
405  1 941         MCW   KB1          AND A BLANK                               4  1941  M N95               39
406  1 945         SBR   X2                                                     4  1945  H 094               39
407  1 949         MCW   SX3C,X3                                                7  1949  M N40 099           39
408  1 956         MCW   SX1D,X1                                                7  1956  M N43 089           39
409  1 963         CW    0&X1                                                   4  1963  ) 0|0               39
410  1 967         SAR   X1                                                     4  1967  Q 089               39
411  1 971         LCA   0&X1,0&X2                                              7  1971  L 0|0 0!0           39
412  1 978         SBR   X1,0&X2                                                7  1978  H 089 0!0           40
413  1 985         B     EXPR3                                                  4  1985  B /43               40
414  1 989  INTFNC MN    0&X2                                                   4  1989  D 0!0               40
415  1 993         SAR   X2                                                     4  1993  Q 094               40
416  1 997         B     FNC3                                                   4  1997  B Z34               40
417         *
418         * EMIT CODING IS UNINTELLIGIBLE MESSAGE
419         *
420  2 001  MSG23  CS    332                                                    4  2001  / 332               40
421  2 005         CS                                                           1  2005  /                   40
422  2 006         SW    GLOBER                                                 4  2006  , 184               41
423  2 010         MN    CODSEQ,247                                             7  2010  D M47 247           41
424  2 017         MN                                                           1  2017  D                   41
425  2 018         MN                                                           1  2018  D                   41
426  2 019         MCW   ERR23  UNINTELLIGIBLE                                  4  2019  M O39               41
427  2 023         W                                                            1  2023  2                   41
428  2 024         BCV   *&5                                                    5  2024  B !33 @             41
429  2 029         B     *&3                                                    4  2029  B !35               42
430  2 033         CC    1                                                      2  2033  F 1                 42
431  2 035  RESTRT MCW   SX3B,X3                                                7  2035  M M50 099           42
432  2 042         MCW   SX1,X1                                                 7  2042  M M65 089           42
433  2 049         B     LOOP                                                   4  2049  B 883               42
434         *
435         * CHECK FOR SUBSCRIPT?
436         *
437  2 053  SUBCHK SBR   SUBCHX&3                                               4  2053  H !82               42
438  2 057         BCE   SUBCH2,1&X1,$                                          8  2057  B J99 0|1 $         42
439  2 065         SBR   SX1E,4&X1                                              7  2065  H O42 0|4           43
440  2 072  SUBCH3 C     SX1E,X2                                                7  2072  C O42 094           43
441  2 079  SUBCHX BE    0                                                      5  2079  B 000 S             43
442         *
443         * LEFT SIDE IS INVALID
444         *
445  2 084  MSG25  CS    332                                                    4  2084  / 332               43
446  2 088         CS                                                           1  2088  /                   43
447  2 089         SW    GLOBER                                                 4  2089  , 184               43
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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
448  2 093          MN    CODSEQ,243                                        7  2093  D M47 243           43
449  2 100          MN                                                      1  2100  D                   44
450  2 101          MN                                                      1  2101  D                   44
451  2 102          MCW   ERR25                                           4  2102  M O82               44
452  2 106          W                                                       1  2106  2                   44
453  2 107          BCV   *&5                                             5  2107  B J16 @             44
454  2 112          B     *&3                                             4  2112  B J18               44
455  2 116          CC    1                                               2  2116  F 1                 44
456  2 118          B     RESTRT                                          4  2118  B !35               45
457          *
458          * ARITHMETIC SYNTAX ERROR
459          *
460  2 122  MSG27   CS    332                                             4  2122  / 332               45
461  2 126          CS                                                      1  2126  /                   45
462  2 127          SW    GLOBER                                          4  2127  , 184               45
463  2 131          MN    CODSEQ,249                                        7  2131  D M47 249           45
464  2 138          MN                                                      1  2138  D                   45
465  2 139          MN                                                      1  2139  D                   45
466  2 140          MCW   ERR27                                           4  2140  M P28               46
467  2 144          W                                                       1  2144  2                   46
468  2 145          BCV   *&5                                             5  2145  B J54 @             46
469  2 150          B     *&3                                             4  2150  B J56               46
470  2 154          CC    1                                               2  2154  F 1                 46
471  2 156          B     RESTRT                                          4  2156  B !35               46
472          *
473  2 160  GM      DC    @}@                                             1  2160              GMARK   46
474          *
475          * DOUBLE OPERATORS
476          *
477  2 161  MSG31   CS    332                                             4  2161  / 332               46
478  2 165          CS                                                      1  2165  /                   47
479  2 166          SW    GLOBER                                          4  2166  , 184               47
480  2 170          MN    CODSEQ,242                                        7  2170  D M47 242           47
481  2 177          MN                                                      1  2177  D                   47
482  2 178          MN                                                      1  2178  D                   47
483  2 179          MCW   ERR31                                           4  2179  M P67               47
484  2 183          W                                                       1  2183  2                   47
485  2 184          BCV   *&5                                             5  2184  B J93 @             48
486  2 189          B     *&3                                             4  2189  B J95               48
487  2 193          CC    1                                               2  2193  F 1                 48
488  2 195          B     RESTRT                                          4  2195  B !35               48
489          *
490  2 199  SUBCH2  SBR   SX1E,12&X1                                      7  2199  H O42 0/2           48
491  2 206          BCE   SUBCH3,11&X1,$                                  8  2206  B !72 0/1 $         48
492  2 214          SBR   SX1E,18&X1                                      7  2214  H O42 0/8           48
493  2 221          B     SUBCH3                                          4  2221  B !72               49
494          *
495          * DATA
496          *
497  2 225          DCW   @*@                   WM CLEARED IF NEEDED      1  2225                      49
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
498  2 234          DCW   @   %FSOCC@  COSF      118 AND 117                    9  2234                      49
499  2 243          DCW   @  %FSBAXA@  XABSF     122 AND 123                    9  2243                      49
500  2 252          DCW   @ %FKNILXI@  XLINKF    139                            9  2252                      49
501  2 261          DCW   @        H@            138                            9  2261                      50
502  2 270          DCW   @        D@            137                            9  2270                      50
503  2 279          DCW   @        M@            136                            9  2279                      50
504  2 288          DCW   @        L@            135                            9  2288                      50
505  2 297          DCW   @        K@            134                            9  2297                      51
506  2 306          DCW   @        J@            133                            9  2306                      51
507  2 315          DCW   @        Z@            132                            9  2315                      51
508  2 324          DCW   @        Y@            131                            9  2324                      51
509  2 333          DCW   @        W@            130                            9  2333                      52
510  2 342          DCW   @        P@            129                            9  2342                      52
511  2 351          DCW   @        U@            128                            9  2351                      52
512  2 360          DCW   @        R@            127                            9  2360                      52
513  2 369          DCW   @  %FTRQSQ@  SQRTF     126                            9  2369                      53
514  2 378          DCW   @ %FTAOLFF@  FLOATF    125                            9  2378                      53
515  2 387          DCW   @  %FXIFXX@  XFIXF     124                            9  2387                      53
516  2 396          DCW   #9           NEGATION  123                            9  2396                      53
517  2 405          DCW   @   %FSBAA@  ABSF      122                            9  2405                      54
518  2 414          DCW   @  %FNATAT@  ATANF     121 AND 117                    9  2414                      54
519  2 423          DCW   @   %FPXEE@  EXPF      129 AND 117                    9  2423                      54
520  2 432          DCW   @   %FGOLG@  LOGF      119 AND 117                    9  2432                      54
521  2 441  FNCLST  DCW   @   %FNISS@  SINF      118 AND 117                    9  2441                      55
522  2 442          DCW   #1                                                     1  2442                      55
523  2 443  DOT     DCW   @.@                                                    1  2443                      55
524  2 447  CODSEQ  DCW   #4  STATEMENT CODE AND SEQUENCE NUMBER                4  2447                      55
525  2 450  SX3B    DCW   #3                                                     3  2450                      55
526  2 453  SX3     DCW   #3                                                     3  2453                      55
527  2 462  ARITH2  DCW   @ARITH TWO@                                           9  2462                      55
528  2 465  SX1     DCW   #3                                                     3  2465                      56
529  2 475  KB10    DCW   #10                                                   10  2475                      56
530  2 479  KIFBOT  DCW   @#<99@                                                4  2479                      56
531  2 482  SX1B    DCW   #3                                                     3  2482                      56
532  2 485  SX1C    DCW   #3                                                     3  2485                      56
533  2 493  OPRATR  DCW   @&-@*#%)}@                                           8  2493                      56
534  2 500  OPRAT2  DCW   @&-*@.#,@                                            7  2500                      56
535  2 502  RPARSV  DCW   #2  RIGHT PARENTHESIS AND NEXT CHARACTER             2  2502                      57
536  2 508  OPRAT3  DCW   @&*@-})@                                             6  2508                      57
537  2 516  OPRAT4  DCW   @&-*.@ %,@                                           8  2516                      57
538  2 518  STAR2   DCW   #2  ASTERISK AND NEXT CHARACTER                       2  2518                      57
539  2 524  OPRAT5  DCW   @&-@*.,@                                             6  2524                      57
540  2 525  COMMA   DCW   @,@                                                  1  2525                      57
541  2 534  OPRAT6  DCW   @&-*@ #%,.@                                          9  2534                      57
542  2 537  SX2     DCW   #3                                                     3  2537                      58
543  2 540  SX3C    DCW   #3                                                     3  2540                      58
544  2 543  SX1D    DCW   #3                                                     3  2543                      58
545  2 589  ERR29   DCW   @ERROR 29 - UNDEFINED FUNCTION NAME, STATEMENT @     46  2589                      60
546  2 594  SGECT   DCW   @SGECT@                                              5  2594                      60
547  2 595  KB1     DCW   #1                                                     1  2595                      60
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
548  2 639  ERR23  DCW   @ERROR 23 - CODING UNINTELLIGIBLE, STATEMENT @      44  2639                      62
549  2 642  SX1E   DCW   #3                                                  3  2642                      62
550  2 682  ERR25  DCW   @ERROR 25 - LEFT SIDE INVALID, STATEMENT @         40  2682                      64
551  2 728  ERR27  DCW   @ERROR 27 - ARITHMETIC SYNTAX ERROR, STATEMENT @   46  2728                      66
552  2 767  ERR31  DCW   @ERROR 31 - DOUBLE OPERATORS, STATEMENT @          39  2767                      67
553  2 768  GMWM   DCW   @}@                                                 1  2768            GMARK     68
554                ORG   201                                                        0201
555    203         DSA   LOADDD    LOAD ADDRESS FOR CARD-TO-TAPE PROGRAM     3  0203  838                 69
556                EX    BEGINN                                                     B 838                 70
557                END                                                              / 000 080
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
ABSF	1872	ARITH2	2462	ASG	1085	ASGL	1135	BEGINN	838	CHK27	1446	CHK31	1470
CLEARL	707	CODSEQ	2447	COMMA	2525	COSF	1864	DONE	920	DOT	2443	ERR23	2639
ERR25	2682	ERR27	2728	ERR29	2589	ERR31	2767	EXPON	1513	EXPR	943	EXPR2	998
EXPR3	1143	FNC2	1926	FNC3	1934	FNCLST	2441	FUNC	1683	FUNCL	1775	GETEQ	1107
GETSER	1856	GLOBER	184	GM	2160	GMWM	2768	GOTEQ	1131	GOTFNC	1883	GOTOP	1191
IGNORE	1572	INTFNC	1989	KB1	2595	KB10	2475	KIFBOT	2479	LOADDD	838	LOADNX	700
LOOP	883	LPARC	1663	LPAREN	1641	MINUS	1598	MSG23	2001	MSG25	2084	MSG27	2122
MSG31	2161	NEGATE	1626	NOTFNC	1818	OPCHK	1172	OPCHK2	1268	OPCHK4	1392	OPCHK5	1484
OPCHKL	1154	OPRAT2	2500	OPRAT3	2508	OPRAT4	2516	OPRAT5	2524	OPRAT6	2534	OPRATR	2493
PHASID	110	PLUS	1544	RESTR2	1310	RESTRT	2035	RPAR2	1378	RPAREN	1339	RPARSV	2502
SAWABS	122	SAWNEG	123	SERIES	117	SGECT	2594	SINCOS	118	SNAPSH	333	STAR	1431
STAR2	2518	SUBCH2	2199	SUBCH3	2072	SUBCHK	2053	SUBCHX	2079	SX1	2465	SX1B	2482
SX1C	2485	SX1D	2543	SX1E	2642	SX2	2537	SX3	2453	SX3B	2450	SX3C	2540
X1	89	X2	94	X3	99								