```
SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

101               JOB   FORTRAN COMPILER -- SENSE LIGHT PHASE -- PHASE 43
102               CTL   6611
103         *
104         * IN-LINE INSTRUCTIONS ARE GENERATED.
105         *
106         X1     EQU   89                                                      0089
107         X2     EQU   94                                                      0094
108         X3     EQU   99                                                      0099
109         *
110         * STUFF IN THE RESIDENT AREA
111         *
112         GLOBER EQU   184  GLOBAL ERROR FLAG -- WM MEANS ERROR               0184
113         *
114                EXT00   SNAPSH, LOADNX, CDOVLY                                          MACRO
115         SNAPSH EQU   333                                                     0333       GEN
116         PHASLD EQU   381                                                     0381       GEN
117         SNAPEX EQU   564                                                     0564       GEN
118         LOADNX EQU   700   CARD OVERLAY UNLESS NOP                         0700       GEN
119         CDOVLY EQU   700   1 IF LOADING FROM CARDS, N IF FROM TAPE         0700       GEN
120         TPREAD EQU   704   LOAD OVERLAY FROM TAPE                          0704       GEN
121         TPERR  EQU   728                                                     0728       GEN
122         *
123                EXT03   START, TOP OF PHASE 3                                    MACRO
124         BEGIN3 EQU   838                                                     0838       GEN
125         TOP3   EQU   2600                                                    2600       GEN
126         *
127         PHAS43 LDPH  LIGHT,LOADAD,BEGN43,,,43                                   MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]    GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                       GEN
            *                                                                   GEN
            * LOAD A BLOCK                                                      GEN
            *                                                                   GEN
128         )6J003 EQU   110  PHASE ID                                          0110       GEN
129         )6K003 EQU   700  LOAD NEXT PHASE                                   0700       GEN
130         )6L003 EQU   704  TAPE READ INSTRUCTION                             0704       GEN
131         )6M003 EQU   728  TAPE ERROR HANDLER                                0728       GEN
            *                                                                   GEN
132                ORG   201                                                          0201
133         PHAS43 EQU   *&1                                                     0201       GEN
134                LCA   )9J003,)6J003                                      7  0201  L 248 110   GEN      1   248     110
135                BCE   )6K003,)6K003,1      Q: LOADING FROM CARDS?        8  0208  B 700 700 1 GEN      1   700     700
136                BCE   )6K003,)6L003&4,0    Q: LOADING FROM AUTOCODER TAPE? 8  0216  B 700 708 0 GEN      1   700     708
137                RTW   1,LOADAD             READ THE BLOCK                8  0224  L %U1 838 R GEN      1   %U1     838
138                BER   )6M003               Q: TAPE ERROR?                5  0232  B 728 L     GEN      1   728
139                CS    BEGN43,)9R003        ENTER THE BLOCK               7  0237  / 838 252   GEN      2   838     252
140         )9J003 DCW   @LIGHT@          PHASE ID                         5  0248               GEN      2
141                DC    #1                                                1  0249               GEN      2
142                DC    @43@          PHASE NUMBER                        2  0251               GEN      2
143         )9R003 DCW   @}@                                                1  0252               GEN      2
144                XFR   PHAS43                                                    B 201                3   201
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

145         *
146               ORG   BEGIN3                                                    0838
147         LOADAD EQU  *&1          LOAD ADDRESS                                0838
148    838  BEGN43 BCE  DONE,0&X1,                                             8  0838  B 861 0|0            4   861     000+1
149    846         MCW  0&X1,SEQCOD                                           7  0846  M 0|0 /74            4   000+1  1174
150    853         BCE  SLITE,SEQCOD-3,J                                      8  0853  B 870 /71 J          4   870    1171
151    861  DONE   BSS  SNAPSH,C                                             5  0861  B 333 C              4   333
152    880         B    LOADNX                                                4  0866  B 700                4   700
153    884  SLITE  LCA  0&X1,0&X3                                             7  0870  L 0|0 0?0            4   000+1   000+3
154    891         SAR  X1                                                    4  0877  Q 089                5   089
155    895         C    0&X3                                                  4  0881  C 0?0                5   000+3
156    899         SAR  X3                                                    4  0885  Q 099                5   099
157    903         SBR  TSTBRK&6,1&X1                                         7  0889  H /12 0|1            5  1112     001+1
158    910         MCW  RBRACK,1&X1                                           7  0896  M /75 0|1            5  1175     001+1
159    917         LCA  1&X3,2&X3                                             7  0903  L 0?1 0?2            5   001+3   002+3
160    924         SBR  X3                                                    4  0910  H 099                5   099
161    928         MCW  SEQCOD,W3                                             7  0914  M /74 /78            6  1174    1178
162    935         BWZ  *&5,W3,2                                              8  0921  V 933 /78 2          6   933    1178
163    943         B    *&9                                                   4  0929  B 941                6   941
164    947         BWZ  *&15,W3-2,2                                           8  0933  V 955 /76 2          6   955    1176
165    955         MCW  W3,X2                                                 7  0941  M /78 094            6  1178     094
166    962         MCW  0&X2,W3                                               7  0948  M 0!0 /78            7   000+2  1178
167    969         BCE  SYNTAX,0&X1,}                                         8  0955  B |01 0|0 } GMARK    7  1001     000+1
168    977         MCW  0&X1,W2                                               7  0963  M 0|0 /80            7   000+1  1180
169    984         BCE  TSTCOD,W2-1,}  SENSE LIGHT NUMBER IS ONE DIGIT?       8  0970  B 982 /79 } GMARK    7   982    1179
170    992         B    SYNTAX                                                4  0978  B |01                7  1001
171    996  TSTCOD MN   0&X1,*&8                                              7  0982  D 0|0 996            8   000+1   996
172  1 003         BCE  SENSOK,K01234,0  VALID SENSE LIGHT NUMBER?            8  0989  B |54 /85 0          8  1054    1185
173  1 011         CHAIN 4                                                                 MACRO
174               BCE                                                        1  0997  B                 GEN      8
175               BCE                                                        1  0998  B                 GEN      8
176               BCE                                                        1  0999  B                 GEN      8
177               BCE                                                        1  1000  B                 GEN      8
178  1 015  SYNTAX CS   332                                                  4  1001  / 332                      8   332
179  1 019         CS                                                         1  1005  /                          9
180  1 020         SW   GLOBER                                               4  1006  , 184                      9   184
181  1 024         MN   W3,245                                               7  1010  D /78 245                  9  1178     245
182  1 031         MN                                                         1  1017  D                          9
183  1 032         MN                                                         1  1018  D                          9
184  1 033         MCW  ERR36                                                 4  1019  M S27                      9  1227
185  1 037         W                                                          1  1023  2                          9
186  1 038         BCV  *&5                                                   5  1024  B |33 @                   10  1033
187  1 043         B    *&3                                                   4  1029  B |35                     10  1035
188  1 047         CC   1                                                     2  1033  F 1                       10
189  1 049         SBR  X3,4&X3                                               7  1035  H 099 0?4                 10   099     004+3
190  1 056         C    0&X1                                                  4  1042  C 0|0                     10   000+1
191  1 060         SAR  X1                                                    4  1046  Q 089                     10   089
192  1 064         B    BEGN43                                                4  1050  B 838                     10   838
193  1 068  SENSOK MZ   *-4,0&X1                                             7  1054  Y |56 0|0                 11  1056     000+1
194  1 075         BCE  SENSE0,0&X1,0                                         8  1061  B /48 0|0 0               11  1148     000+1
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SEQ PG LIN  LABEL   OP    OPERANDS                                              SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
195  1 083          MN    0&X1,CW&3                                               7  1069  D 0|0 /70          11   000+1  1170
196  1 090          LCA   CW&3,0&X3  LOAD CW INSTRUCTION                         7  1076  L /70 0?0          11  1170     000+3
197  1 097          SBR   X3                                                    4  1083  H 099              11   099
198  1 101  ENDSTM  C     0&X1                                                  4  1087  C 0|0              11   000+1
199  1 105          SAR   X1                                                    4  1091  Q 089              12   089
200  1 109          LCA   1&X1,0&X3  GMWM                                       7  1095  L 0|1 0?0          12   001+1   000+3
201  1 116          SBR   X3                                                    4  1102  H 099              12   099
202  1 120  TSTBRK  BCE   BEGN43,0,]  NOT TOO BIG IF BRACKET NOT CLOBBERED      8  1106  B 838 000 ]        12   838     000
203  1 128          CS    332                                                   4  1114  / 332              12   332
204  1 132          CS                                                          1  1118  /                  12
205  1 133          CC    1                                                     2  1119  F 1                12
206  1 135          MCW   ERROR2,270                                           7  1121  M S63 270          13  1263     270
207  1 142          W                                                           1  1128  2                  13
208  1 143          CC    1                                                     2  1129  F 1                13
209  1 145          BCE   HALT,CDOVLY,1                                        8  1131  B /44 700 1        13  1144     700
210  1 153          RWD   1                                                     5  1139  U %U1 R            13   %U1
211  1 158  HALT    H     HALT                                                  4  1144  . /44              13  1144
212  1 162  SENSE0  LCA   SW,0&X3  CHAINED SW                                   7  1148  L S64 0?0          13  1264     000+3
213  1 169          LCA   SW2&6    SW 82,84                                     4  1155  L S71              14  1271
214  1 173          SBR   X3                                                    4  1159  H 099              14   099
215  1 177          B     ENDSTM                                                4  1163  B |87              14  1087
216  1 181  CW      CW    80                                                    4  1167  ) 080              14   080
217  1 188  SEQCOD  DCW   #4                                                    4  1174                     14
218  1 195  RBRACK  DCW   @]@                                                  1  1175                     14
219  1 198  W3      DCW   #3                                                    3  1178                     14
220  1 200  W2      DCW   #2                                                    2  1180                     15
221  1 205  K01234  DCW   @01234@                                              5  1185                     15
222  1 247  ERR36   DCW   @ERROR 36 - ILLEGAL SENSE LIGHT, STATEMENT @         42  1227                     17
223  1 283  ERROR2  DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@              36  1263                     17
224  1 284  SW      SW                                                          1  1264  ,                  18
225  1 285  SW2     SW    82,84                                                 7  1265  , 082 084          18   082     084
226  1 292  GMWM    DCW   @}@                                                  1  1272        GMARK     18
227                 XFR   BEGN43                                                     B 838                19   838
228          CLRME  CLRA  LOADAD,GMWM                                                      MACRO
             *      CLRA  CLRBOT,CLRTOP[,ORG,GMWMAD]                                      GEN
             *                                                                           GEN
             * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                         GEN
             *                                                                           GEN
229                 ORG   201                                                      0201
             *                                                                           GEN
             * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                   GEN
             *                                                                           GEN
230          CLRME  EQU   *&1                                                  0201      GEN
231          )0J004 CS    GMWM         CLEAR FROM CLRTOP                       4  0201  / S72       GEN     20  1272
232                 SBR   )0J004&3                                             4  0205  H 204       GEN     20   204
233                 SBR   )0L004&6                                             4  0209  H 250       GEN     20   250
234                 C     )0J004&3,)0M004   DOWN TO CLRBOT & X00?              7  0213  C 204 261   GEN     20   204     261
235                 BU    )0J004                                               5  0220  B 201 /     GEN     20   201
             *                                                                           GEN
             * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                     GEN
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

            *                                                                                       GEN
236         )0K004 C      )0L004&6,)0N004                                    7  0225  C 250 264   GEN     20   250     264
237                BU     )0L004                                             5  0232  B 244 /     GEN     20   244
238                CS     LOADNX,)0Q004  LOAD THE NEXT BLOCK AT 1            7  0237  / 700 271   GEN     21   700     271
239         )0L004 LCA    )0P004,0-0     CLEAR WITH BLANK AND WORD MARK      7  0244  L 265 000   GEN     21   265     000
240                SBR    )0L004&6                                           4  0251  H 250       GEN     21   250
241                B      )0K004                                             4  0255  B 225       GEN     21   225
242         )0M004 DSA    )0R004         CLRBOT & X00 - 1                    3  0261  899         GEN     21   899
243         )0N004 DSA    LOADAD         CLRBOT                              3  0264  838         GEN     21   838
244         )0P004 DCW    #1                                                 1  0265              GEN     21
245                DC     @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP      5  0270              GEN     21
246         )0Q004 DCW    @}@                                                1  0271              GEN     22
247                ORG    LOADAD&X00                                                  0900
248         )0R004 EQU    *           CLRBOT & X00 - 1                          0899              GEN
249                XFR    CLRME                                                       B 201               23   201
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J004	0201: 0	)0K004	0225: 0	)0L004	0244: 0	)0M004	0261: 0	)0N004	0264: 0	)0P004	0265: 0
)0Q004	0271: 0	)0R004	0899: 0	)6J003	0110: 0	)6K003	0700: 0	)6L003	0704: 0	)6M003	0728: 0
)9J003	0248: 0	)9R003	0252: 0	BEGIN3	0838: 0	BEGN43	0838: 0	CDOVLY	0700: 0	CLRME	0201: 0
CW	1167: 0	DONE	0861: 0	ENDSTM	1087: 0	ERR36	1227: 0	ERROR2	1263: 0	GLOBER	0184: 0
GMWM	1272: 0	HALT	1144: 0	K01234	1185: 0	LOADAD	0838: 0	LOADNX	0700: 0	PHAS43	0201: 0
PHASLD	0381: 0	RBRACK	1175: 0	SENSE0	1148: 0	SENSOK	1054: 0	SEQCOD	1174: 0	SLITE	0870: 0
SNAPEX	0564: 0	SNAPSH	0333: 0	SW	1264: 0	SW2	1265: 0	SYNTAX	1001: 0	TOP3	2600: 0
TPERR	0728: 0	TPREAD	0704: 0	TSTBRK	1106: 0	TSTCOD	0982: 0	W2	1180: 0	W3	1178: 0
X1	0089: 0	X2	0094: 0	X3	0099: 0						

UNREFERENCED SYMBOLS

PHASLD SNAPEX TOP3 TPERR TPREAD