```
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 -- INSERT GROUP-MARK PHASE -- 07                          PAGE    1

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

 101               JOB   FORTRAN COMPILER -- INSERT GROUP-MARK PHASE -- 07
 102               CTL   6611
 103         *
 104         * REPLACE THE COLON (5-8) THAT SEPARATES EACH STATEMENT FROM
 105         * ITS APPENDAGE (PREFIX) BY A GROUP MARK WITH A WORD MARK.
 106         * REPLACE INTEGER MODULUS BY 05 IF IT'S ZERO.
 107         * REPLACE MANTISSA DIGITS BY 08 IF IT'S ZERO.
 108         * 81-83 = START (TOP ADDRESS) OF FIRST (TOP IN MEMORY)
 109         * STATEMENT.  REMEMBER, STATEMENTS ARE SORTED BY TYPE NOW.
 110         *
 111         X1     EQU   89                                                      0089
 112         X2     EQU   94                                                      0094
 113         X3     EQU   99                                                      0099
 114         *
 115         * STUFF IN THE RESIDENT AREA
 116         *
 117         PHASID EQU   110  PHASE ID, FOR SNAPSHOT DUMPS                      0110
 118         SNAPSH EQU   333  CORE DUMP SNAPSHOT                                0333
 119         TOPCOR EQU   688  TOP CORE ADDRESS FROM PARAM CARD                  0688
 120         IMOD   EQU   690  INTEGER MODULUS -- NUMBER OF DIGITS               0690
 121         MANTIS EQU   692  FLOATING POINT MANTISSA DIGITS                    0692
 122         LOADNX EQU   700  LOAD NEXT OVERLAY                                0700
 123         CLEARL EQU   707  CS AT START OF OVERLAY LOADER                     0707
 124         *
 125               ORG   838                                                           0838
 126         LOADDD EQU   *&1          LOAD ADDRESS                              0838
 127    838  BEGINN MCW   83,X1                                               7  0838  M 083 089            4
 128    845         SW    GM                                                 4  0845  , |91                4
 129    849  LOOP   BCE   COLON,0&X1,:                                       8  0849  B 881 0|0 :           4
 130    857  SWITCH BCE   DONE,0&X1,  NOP IF WORKING ON FORMAT               8  0857  B 949 0|0             4
 131    865         BCE   SEEGM,0&X1,}                                       8  0865  B 904 0|0 } GMARK    4
 132    873         SBR   X1                                                 4  0873  H 089                4
 133    877         B     LOOP                                               4  0877  B 849                5
 134    881  COLON  LCA   GM,0&X1  REPLACE COLON BY GMWM                      7  0881  L |91 0|0            5
 135    888         SBR   X1       GET BELOW COLON                           4  0888  H 089                5
 136    892         C     0&X1       AND THEN                                4  0892  C 0|0                5
 137    896         SAR   X1           BELOW BOTTOM WORD MARK                4  0896  Q 089                5
 138    900         B     LOOP     PROCESS NEXT STATEMENT                    4  0900  B 849                5
 139    904  SEEGM  MCW   0&X1,PREFIX                                         7  0904  M 0|0 |96            5
 140    911         BCE   FORMAT,PREFIX-4,F  FORMAT STATEMENT?               8  0911  B 938 |92 F          6
 141    919         MCW   BRANCH,SWITCH                                      7  0919  M |97 857            6
 142    926  NEXT   MN    0&X1     DECREASE X1                               4  0926  D 0|0                6
 143    930         SBR   X1         TO NEXT STATEMENT                       4  0930  H 089                6
 144    934         B     LOOP                                               4  0934  B 849                6
 145    938  FORMAT MCW   NOP,SWITCH                                         7  0938  M |98 857            6
 146    945         B     NEXT                                               4  0945  B 926                6
 147         *
```

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

148         * CLEAR FROM TOP CORE DOWN TO TOP OF STATEMENTS & X00
149         *
150    949  DONE    MCW   TOPCOR,X2                                         7  0949  M 688 094           7
151    956          MZ    83,K999  COMPUTE TOP                             7  0956  Y 083 |90           7
152    963          MZ              OF STATEMENTS                          1  0963  Y                   7
153    964          MCW               & X00                                1  0964  M                   7
154    965  CLEAR   CS    0&X2                                            4  0965  / 0!0               7
155    969          SBR   X2                                              4  0969  H 094               7
156    973          C     X2,K999                                         7  0973  C 094 |90           7
157    980          BU    CLEAR                                           5  0980  B 965 /             8
158         *
159         * CLEAR FROM TOP OF STATEMENTS & X00 TO TOP OF STATEMENTS
160         *
161    985  CLEAR2  C     83,X2                                           7  0985  C 083 094           8
162    992          BE    DONE2                                           5  0992  B |16 S             8
163    997          MCW   BLANK,0&X2                                      7  0997  M |99 0!0           8
164  1 004          CW    0&X2                                            4  1004  ) 0!0               8
165  1 008          SBR   X2                                              4  1008  H 094               8
166  1 012          B     CLEAR2                                          4  1012  B 985               8
167  1 016  DONE2   SW    IMOD-1                                          4  1016  , 689               9
168  1 020          A     BLANK,MANTIS                                    7  1020  A |99 692           9
169  1 027          C     IMOD,KZ2   INTEGER MODULUS EQUAL ZERO?          7  1027  C 690 /01           9
170  1 034          BU    NOTZI      NO                                   5  1034  B |46 /             9
171  1 039          MCW   K05,IMOD   YES, USE 05                          7  1039  M /03 690           9
172  1 046  NOTZI   C     MANTIS,KZ2   MANTISSA DIGITS EQUAL ZERO?        7  1046  C 692 /01           9
173  1 053          BU    NOTZF        NO                                 5  1053  B |65 /            10
174  1 058          MCW   K08,MANTIS   YES, USE 08                        7  1058  M /05 692          10
175         *
176         * LOAD NEXT OVERLAY
177         *
178  1 065  NOTZF   BSS   SNAPSH,C                                        5  1065  B 333 C            10
179  1 070          SBR   CLEARL&3,GMWM  LOAD CLEAR-DOWN-TO ADDRESS       7  1070  H 710 /12          10
180  1 077          LCA   SQUOZE,PHASID  LOAD NEXT PHASE ID               7  1077  L /11 110          10
181  1 084          B     LOADNX     LOAD IT                             4  1084  B 700              10
182  1 090  K999    DCW   999                                             3  1090                     10
183  1 091  GM      DC    @}@                                             1  1091             GMARK   10
184  1 096  PREFIX  DCW   #5                                              5  1096                     11
185  1 097  BRANCH  B                                                     1  1097  B                  11
186  1 098  NOP     NOP                                                   1  1098  N                  11
187  1 099  BLANK   DCW   #1                                              1  1099                     11
188  1 101  KZ2     DCW   00                                              2  1101                     11
189  1 103  K05     DCW   05                                              2  1103                     11
190  1 105  K08     DCW   08                                              2  1105                     11
191  1 111  SQUOZE  DCW   @SQUOZE@                                       6  1111                     12
192  1 112  GMWM    DCW   @}@                                             1  1112             GMARK   12
193                 ORG   201                                                    0201
194    203          DSA   LOADDD    LOAD ADDRESS FOR CARD-TO-TAPE PROGRAM  3  0203  838                13
195                 EX    BEGINN                                                 B 838                14
196                 END                                                          / 000 080
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
BEGINN	838	BLANK	1099	BRANCH	1097	CLEAR	965	CLEAR2	985	CLEARL	707	COLON	881
DONE	949	DONE2	1016	FORMAT	938	GM	1091	GMWM	1112	IMOD	690	K05	1103
K08	1105	K999	1090	KZ2	1101	LOADDD	838	LOADNX	700	LOOP	849	MANTIS	692
NEXT	926	NOP	1098	NOTZF	1065	NOTZI	1046	PHASID	110	PREFIX	1096	SEEGM	904
SNAPSH	333	SQUOZE	1111	SWITCH	857	TOPCOR	688	X1	89	X2	94	X3	99