```
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

                          1401 AUTOCODER-PASS 1-GENERATE SYSTEM TAPE-VERSION 3       3711L               PAGE    1

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

 101  1 01   000    JOB   1401 AUTOCODER-PASS 1-GENERATE SYSTEM TAPE-VERSION 3
 102  1 02          CTL   630 1
 103  1 03   SYSTP  EQU   %U1                                                      %U1
 104  1 04   CARD   EQU   0                                                       0000
 105  1 05   PRINT  EQU   200                                                     0200
 106  1 06          ORG   87                                                            0087
 107  1 07   XR1    DCW   000                                                 3   0089                      4
 108  1 08          DC    00                                                  2   0091                      4
 109  1 09   XR2    DCW   000                                                 3   0094                      4
 110  1 10          DC    00                                                  2   0096                      4
 111  1 11   XR3    DCW   000                                                 3   0099                      4
 112  1 12          DC    000000                                              6   0105                      4
 113  1 13   ZONE   DCW   @2SKB@                                              4   0109                      4
 114  1 14   ABIT   EQU   ZONE-2                                                   0107
 115  1 15   NOBIT  EQU   ZONE-3                                                   0106
 116  1 16   XXXX   EQU   0                                                       0000
 117  1 17   *
 118  1 18   * START OF MAIN LINE
 119  1 19   *
 120  1 20          ORG   333                                                           0333
 121  1 21   START  RWD   SYSTP                                               5   0333  U %U1 R                   5
 122  1 22          CC    1                                                   2   0338  F 1                       5
 123  1 23          MCW   @GENERATING 1401 AUTOCODER SYSTEM@,PRINT&32         7   0340  M ’83 232                 5
 124  1 24          W                                                         1   0347  2                         5
 125  1 25          CC    1                                                   2   0348  F 1                       5
 126  1 26          CS    PRINT&132                                           4   0350  / 332                     5
 127  1 27          CS                                                        1   0354  /                         5
 128  1 28          MCW   CARD&75,SEQNO#4                                     7   0355  M 075 ’87                 6
 129  1 29   *
 130  1 30   * START UP NEXT BLOCK
 131  1 31   *
 132  1 32   NXTBK  R                                                         1   0362  1                         6
 133  1 33          C     CARD&12,@CONTROL@                                   7   0363  C 012 ’94                 6
 134  1 34          BU    MACRO                                               5   0370  B 792 /                   6
 135  1 35          BWZ   CKSEQ,CARD&80,2   COMMENT OUT TO TURN OFF SEQ CHK   8   0375  V 726 080 2               6
 136  1 36          BCE   EOJOB,CARD&78,9                                     8   0383  B 877 078 9               6
 137  1 37          SW    CARD&21                                             4   0391  , 021                     7
 138  1 38          ZA    CARD&25,HOLD5#5                                     7   0395  ? 025 ’99                 7
 139  1 39          CW    CARD&21                                             4   0402  ) 021                     7
 140  1 40   *
 141  1 41   * FLOAT ADDRESS TO FIVE CHARACTERS
 142  1 42   *
 143  1 43   FLOAT  BCE   *&5,HOLD5,&                                         8   0406  B 418 ’99 &               7
 144  1 44          B     COMP1                                               4   0414  B 429                     7
 145  1 45          ZA    HOLD5-1,HOLD5                                       7   0418  ? ’98 ’99                 7
 146  1 46          B     FLOAT                                               4   0425  B 406                     7
 147  1 47   *

                          1401 AUTOCODER-PASS 1-GENERATE SYSTEM TAPE-VERSION 3       3711L               PAGE    2

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

 148  1 48   * TEST ADDRESS AGAINST HOME ADDRESS
 149  1 49   * TO DEVELOP INDEX VALUE
 150  1 50   *
 151  1 51   COMP1  MZ    NOBIT,HOLD5                                         7   0429  Y 106 ’99                 8
 152  1 52          S     XR1&2                                               4   0436  S 091                     8
 153  1 53          C     HOLD5,@01500@                                       7   0440  C ’99 /04                 8
 154  1 54          BE    DOCOR                                               5   0447  B 538 S                   8
 155  1 55          BH    SUB1                                                5   0452  B 527 U                   8
 156  1 56          S     @01500@,HOLD5                                       7   0457  S /09 ’99                 8
 157  1 57          MCW   @160000@,WORK5#5                                    7   0464  M /14 /19                 9
 158  1 58   SUB2   S     HOLD5,WORK5                                         7   0471  S ’99 /19                 9
 159  1 59   *
 160  1 60   * CONVERT INDEX VALUE TO 3 DIGIT MACHINE ADDRESS
 161  1 61   *
 162  1 62   CNVRT  BAV   *&1                                                  5   0478  B 483 Z                   9
 163  1 63          A     @96@,WORK5-3                                        7   0483  A /21 /16                 9
 164  1 64          BAV   CNVRT&5                                             5   0490  B 483 Z                   9
 165  1 65          MZ    WORK5-4,WORK5                                       7   0495  Y /15 /19                 9
 166  1 66          MN    WORK5-3,*&4                                         7   0502  D /16 512                10
 167  1 67          MZ    ZONE,WORK5-2                                        7   0509  Y 109 /17                10
 168  1 68          MCW   WORK5,XR1                                          7   0516  M /19 089                10
 169  1 69          B     DOCOR                                               4   0523  B 538                    10
 170  1 70   SUB1   MCW   @01500@,WORK5                                       7   0527  M /26 /19                10
 171  1 71          B     SUB2                                                4   0534  B 471                    10
 172  1 72   *
 173  1 73   * READ CONDENSED CARDS
 174  1 74   *
 175  1 75   DOCOR  R                                                         1   0538  1                        10
 176  1 76          MCW   @045@,XR3                                           7   0539  M /29 099                11
 177  1 77          MCW   @042@,XR2                                           7   0546  M /32 094                11
 178  1 78          BWZ   CKSEQ,CARD&80,2   COMMENT OUT TO TURN OFF SEQ CHK   8   0553  V 726 080 2              11
 179  1 79          BCE   WTAP1,CARD&68,B                                     8   0561  B 675 068 B              11
 180  1 80          BCE   SETWM,CARD&40,N                                     8   0569  B 596 040 N              11
 181  1 81          C     CARD&46,@001@                                       7   0577  C 046 /35                12
 182  1 82          BE    SETWM                                               5   0584  B 596 S                  12
 183  1 83          MZ    ABIT,CARD&45                                        7   0589  Y 107 045                12
 184  1 84   *
 185  1 85   * SET RETURN ADDRESS
 186  1 86   *
 187  1 87   SETWM  MCW   &DOCOR,CARD&71                                      7   0596  M /38 071                12
 188  1 88          MCW   @B@                                                 4   0603  M /39                    12
 189  1 89   *
 190  1 90   * INDEX WORD MARK ADDRESSES
 191  1 91   *
 192  1 92   COMP2  C     XR2,@063@                                           7   0607  C 094 /42                12
 193  1 93          BE    CARD&40                                             5   0614  B 040 S                  13
 194  1 94          A     &7,XR3                                              7   0619  A /43 099                13
 195  1 95          A     &7,XR2                                              7   0626  A /43 094                13
 196  1 96          C     CARD&1&X2,@040@                                     7   0633  C 0!1 /46                13
 197  1 97          BE    *&8                                                 5   0640  B 652 S                  13
```

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

198  1 98          MZ    ABIT,CARD&X2                                     7  0645  Y 107 0!0           13
199  1 99          C     CARD&1&X3,@040@                                  7  0652  C 0?1 /46           14
200  2 00          BE    COMP2                                            5  0659  B 607 S             14
201  2 01          MZ    ABIT,CARD&X3                                     7  0664  Y 107 0?0           14
202  2 02          B     COMP2                                            4  0671  B 607               14
203  2 03   *
204  2 04   * WRITE CORE ON TAPE
205  2 05   *
206  2 06   WTAP1  LCA   @}@,3998                                         7  0675  L /47 I98           14
207  2 07          WTW   SYSTP,1500                                       8  0682  L %U1 V00 W         14
208  2 08          BER   WTERR                                            5  0690  B 973 L             15
209  2 09   *
210  2 10   * CLEAR INPUT AREA
211  2 11   *
212  2 12          MCW   @I99@,CLEAR&3                                    7  0695  M /50 705           15
213  2 13   CLEAR  CS    XXXX                                             4  0702  / 000               15
214  2 14          SBR   CLEAR&3                                          4  0706  H 705               15
215  2 15          C     CLEAR&3,@U99@                                    7  0710  C 705 /53           15
216  2 16          BU    CLEAR                                            5  0717  B 702 /             15
217  2 17          B     NXTBK                                            4  0722  B 362               15
218  2 18   *
219  2 19   * CHECK CARD SEQUENCE
220  2 20   *
221  2 21   CKSEQ  SBR   SEQXT&3                                          4  0726  H 759               16
222  2 22          A     &1,SEQNO                                         7  0730  A /54 '87           16
223  2 23          C     CARD&75,SEQNO                                    7  0737  C 075 '87           16
224  2 24          MCW   CARD&75,SEQNO                                    7  0744  M 075 '87           16
225  2 25          BU    SEQER                                            5  0751  B 760 /             16
226  2 26   SEQXT  B     XXXX                                             4  0756  B 000               16
227  2 27   *
228  2 28   * CARD SEQUENCE ERROR
229  2 29   *
230  2 30   SEQER  MCW   CARD&80,PRINT&80                                 7  0760  M 080 280           17
231  2 31          CHAIN 6                                                                  MACRO
232                MCW                                                    1  0767  M           GEN     17
233                MCW                                                    1  0768  M           GEN     17
234                MCW                                                    1  0769  M           GEN     17
235                MCW                                                    1  0770  M           GEN     17
236                MCW                                                    1  0771  M           GEN     17
237                MCW                                                    1  0772  M           GEN     17
238  2 32          MCW   @SEQUENCE ERROR@,PRINT&98                        7  0773  M /68 298           18
239  2 33          W                                                      1  0780  2                   18
240  2 34          H     0,176                                            7  0781  . 000 176           18
241  2 35          B     DOSEQ                                            4  0788  B 941               18
242  2 36   *
243  2 37   * PROCESS MACRO LIBRARY
244  2 38   *
245  2 39   MACRO  NOP   CRDER                                            4  0792  N 917               18
246  2 40          C     CARD&20,@HEADR@                                  7  0796  C 020 /73           18
247  2 41          BU    CRDER                                            5  0803  B 917 /             18
```



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

248  2 42          BWZ   CKSEQ,CARD&80,2  COMMENT OUT TO TURN OF SEQ CHK   8  0808  V 726 080 2         19
249  2 43          MCW   @B@,MACRO                                        7  0816  M /39 792           19
250  2 44          LCA   @}@,81                                           7  0823  L /47 081           19
251  2 45   *
252  2 46   * WRITE SKELETON INSTRUCTIONS ON TAPE
253  2 47   *
254  2 48   WTAP2  WT    SYSTP,CARD&1                                     8  0830  M %U1 001 W         19
255  2 49          BER   WTERR                                            5  0838  B 973 L             19
256  2 50          C     CARD&11,@999999@                                 7  0843  C 011 /79           20
257  2 51          BE    WTTM                                             5  0850  B 868 S             20
258  2 52          R                                                      1  0855  1                   20
259  2 53          BWZ   CKSEQ,CARD&80,2  COMMENT OUT TO TURN OF SEQ CHK   8  0856  V 726 080 2         20
260  2 54          B     WTAP2                                            4  0864  B 830               20
261  2 55   WTTM   WTM   SYSTP                                            5  0868  U %U1 M             20
262  2 56          B     NXTBK                                            4  0873  B 362               20
263  2 57   *
264  2 58   * END OF GENERATION
265  2 59   *
266  2 60   EOJOB  WTM   SYSTP                                            5  0877  U %U1 M             21
267  2 61          RWD   SYSTP                                            5  0882  U %U1 R             21
268  2 62          CW    @}@                                              4  0887  ) /47               21
269  2 63          CS    PRINT&132                                        4  0891  / 332               21
270  2 64          CS                                                     1  0895  /                   21
271  2 65          MCW   @1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1@,246  7  0896  M S25 246        21
272  2 66          W                                                      1  0903  2                   21
273  2 67          CC    1                                                2  0904  F 1                 22
274  2 68   *
275  2 69   * FINAL HALT
276  2 70   *
277  2 71   HALT   H     0,142                                            7  0906  . 000 142           22
278  2 72          B     HALT                                             4  0913  B 906               22
279  2 73   *
280  2 74   * MISSING CONTROL CARD
281  2 75   *
282  2 76   CRDER  CS    PRINT&132                                        4  0917  / 332               22
283  2 77          CS                                                     1  0921  /                   22
284  2 78          MCW   @SYSTEM CONTROL CARD MISSING@,PRINT&27           7  0922  M S52 227           22
285  2 79          W                                                      1  0929  2                   22
286  2 80   HALT2  H     0,177                                            7  0930  . 000 177           23
287  2 81          B     HALT2                                            4  0937  B 930               23
288  2 82   *
289  2 83   * AFTER SEQUENCE ERROR, CHECK BALANCE OF DECK
290  2 84   *
291  2 85   DOSEQ  R                                                      1  0941  1                   23
292  2 86          BWZ   CKSEQ,CARD&80,2                                  8  0942  V 726 080 2         23
293  2 87          BCE   ENDSQ,CARD&78,9                                  8  0950  B 962 078 9         23
294  2 88          B     DOSEQ                                            4  0958  B 941               23
295  2 89   ENDSQ  H     0,152                                            7  0962  . 000 152           23
296  2 90          B     ENDSQ                                            4  0969  B 962               24
297  2 91   *
```

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

298  2 92   * WRITE REDUNDANCY ROUTINE
299  2 93   *
300  2 94   WTERR  SBR   WTXT&3                                              4  0973  H '36              24
301  2 95          SBR   XR3                                                 4  0977  H 099              24
302  2 96          MZ    &9,XR3                                              7  0981  Y S53 099          24
303  2 97          MCW   4000-6&X3,RETRY&7                                   7  0988  M II4 '27          24
304  2 98   BSP    BSP   SYSTP                                               5  0995  U %U1 B            24
305  2 99          SKP   SYSTP                                               5  1000  U %U1 E            24
306  3 00          BCE   SUBCT,WTCT-1,1                                      8  1005  B '37 S54 1        25
307  3 01          A     &1,WTCT#2                                           7  1013  A /54 S55          25
308  3 02   RETRY  WT    SYSTP,XXXX                                          8  1020  M %U1 000 W        25
309  3 03          BER   BSP                                                 5  1028  B 995 L            25
310  3 04   WTXT   B     XXXX                                                4  1033  B 000              25
311  3 05   SUBCT  S     WTCT                                                4  1037  S S55              25
312  3 06          H     0,161                                               7  1041  . 000 161          26
313  3 07          B     RETRY                                               4  1048  B '20              26
                   DCW   @GENERATING 1401 AUTOCODER SYSTEM@                 32  1083            LIT     27
               SEQNO DCW   #04                                               4  1087            AREA    27
                   DCW   @CONTROL@                                           7  1094            LIT     28
               HOLD5 DCW   #05                                               5  1099            AREA    28
                   DCW   @01500@                                             5  1104            LIT     28
                   DCW   @01500@                                             5  1109            LIT     28
                   DCW   @16000@                                             5  1114            LIT     28
               WORK5 DCW   #05                                               5  1119            AREA    28
                   DCW   @96@                                                2  1121            LIT     28
                   DCW   @01500@                                             5  1126            LIT     29
                   DCW   @045@                                               3  1129            LIT     29
                   DCW   @042@                                               3  1132            LIT     29
                   DCW   @001@                                               3  1135            LIT     29
                   DCW   &DOCOR                                              3  1138  538       ADCON   29
                   DCW   @B@                                                 1  1139            LIT     29
                   DCW   @063@                                               3  1142            LIT     29
                   DCW   &7                                                  1  1143            LIT     30
                   DCW   @040@                                               3  1146            LIT     30
                   DCW   @}@                                                 1  1147            LIT     30
                   DCW   @I99@                                               3  1150            LIT     30
                   DCW   @U99@                                               3  1153            LIT     30
                   DCW   &1                                                  1  1154            LIT     30
                   DCW   @SEQUENCE ERROR@                                   14  1168            LIT     30
                   DCW   @HEADR@                                             5  1173            LIT     31
                   DCW   @9999999@                                           6  1179            LIT     31
                   DCW   @1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1@   46  1225            LIT     33
                   DCW   @SYSTEM CONTROL CARD MISSING@                      27  1252            LIT     33
                   DCW   &9                                                  1  1253            LIT     33
               WTCT  DCW   #02                                               2  1255            AREA    33
314  3 08          EX    START                                                     B 333              34
```



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

315  3 09          JOB   AUTOCODER-PASS 1 SELECT PROGRAM -VERSION 3
316  3 10          SFX   B                                                 B
317  3 11   PASSA  EQU   1650                                              B      1650
318  3 12   DOPSA  EQU   1900                                              B      1900
319  3 13   SYSTP  EQU   %U1                                               B      %U1
320  3 14   *
321  3 15   * BRANCH FROM TAPE LOAD ROUTINE
322  3 16   *
323  3 17          ORG   1                                                 B            0001
324  3 18          B     333                                               B   4  0001  B 333              37  ADDR
325  3 19          H     *-3                                               B   4  0005  . 005              37  ADDR
326  3 20   LOADD  DCW   @599@                                             B   3  0011                     37  ADDR
327  3 21          ORG   87                                                B            0087
328  3 22   XR1    DCW   000                                               B   3  0089                     38
329  3 23          DC    00                                                B   2  0091                     38
330  3 24          DCW   000                                               B   3  0094                     38
331  3 25          DC    00                                                B   2  0096                     38
332  3 26          DCW   000                                               B   3  0099                     38
333  3 27          DC    00                                                B   2  0101                     38
334  3 28   *
335  3 29   * BEGIN PROGRAM
336  3 30   *
337  3 31          ORG   333                                               B            0333
338  3 32          BER   HALT1                                             B   5  0333  B 407 L            39
339  3 33          SW    GMRK1                                             B   4  0338  , 835              39
340  3 34   CLEAR  CS    3999                                              B   4  0342  / I99              39
341  3 35          SBR   CLEAR&3                                          B   4  0346  H 345              39
342  3 36          C     CLEAR&3,@U99@                                     B   7  0350  C 345 787          39
343  3 37          BU    CLEAR                                             B   5  0357  B 342 /            39
344  3 38   *
345  3 39   * GET PAST LIBRARY
346  3 40   *
347  3 41   LOOP1  SW    GMRK1                                             B   4  0362  , 835              39
348  3 42          RT    SYSTP,GMRK1-21                                    B   8  0366  M %U1 814 R        40
349  3 43          C     GMRK1-2,@999999    HEADR@                         B   7  0374  C 833 802          40
350  3 44          BU    LOOP1                                             B   5  0381  B 362 /            40
351  3 45          SW    GMRK1                                             B   4  0386  , 835              40
352  3 46          RT    SYSTP,GMRK1-1                                     B   8  0390  M %U1 834 R        40
353  3 47          BEF   TSTSS                                             B   5  0398  B 418 K            40
354  3 48          B     LOOP1                                             B   4  0403  B 362              41
355  3 49   *
356  3 50   * REDUNDANCY ON TAPE LOAD
357  3 51   *
358  3 52   HALT1  H     0,199                                             B   7  0407  . 000 199          41
359  3 53          B     HALT1                                             B   4  0414  B 407              41
360  3 54   TSTSS  BSS   LIBRN,F                                           B   5  0418  B 521 F            41
361  3 55   *
362  3 56   * RETRIEVE PASS 2 FOR ASSEMBLY RUN
363  3 57   *
364  3 58          SW    GMRK1                                             B   4  0423  , 835              41
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
365  3 59          LCA   GMRK1,3998                                 B  7  0427  L 835 I98          41
366  3 60          MCW   &PASSA&13,NOIS2&6                          B  7  0434  M 805 658          41
367  3 61   *
368  3 62   * GET PAST LIBRARIAN
369  3 63   *
370  3 64   LOOP2  BCE   LOPSA,BYCT,4                               B  8  0441  B 476 807 4       42
371  3 65          SW    3998                                       B  4  0449  , I98             42
372  3 66          RTW   SYSTP,PASSA                                B  8  0453  L %U1 W50 R        42
373  3 67          B     NOISE                                      B  4  0461  B 637             42
374  3 68          A     &1,BYCT#1                                  B  7  0465  A 806 807         42
375  3 69          B     LOOP2                                      B  4  0472  B 441             42
376  3 70   *
377  3 71   * PASS 2 FOUND
378  3 72   *
379  3 73   LOPSA  RTW   SYSTP,PASSA                                B  8  0476  L %U1 W50 R        43
380  3 74          B     NOISE                                      B  4  0484  B 637             43
381  3 75          BER   RDERR                                      B  5  0488  B 676 L           43
382  3 76          CW    GMRK1                                      B  4  0493  ) 835             43
383  3 77   CLR    CS    PASSA-1                                    B  4  0497  / W49             43
384  3 78          SBR   CLR&3                                      B  4  0501  H 500             43
385  3 79          C     CLR&3,LOADD                                B  7  0505  C 500 011         43
386  3 80          BU    CLR                                        B  5  0512  B 497 /           44
387  3 81          B     DOPSA                                      B  4  0517  B Z00             44
388  3 82   *
389  3 83   * LIBRARY RUN
390  3 84   *
391  3 85   LIBRN  MCW   @!13@,NOIS2&6                              B  7  0521  M 810 658          44
392  3 86          CW    GMRK1                                      B  4  0528  ) 835             44
393  3 87          BSS   OUTPT,B                                    B  5  0532  B 558 B           44
394  3 88   *
395  3 89   * RETRIEVE UPDATE PROGRAM
396  3 90   *
397  3 91          RTW   SYSTP,2000                                 B  8  0537  L %U1 !00 R        44
398  3 92          B     NOISE                                      B  4  0545  B 637             44
399  3 93          BER   RDERR                                      B  5  0549  B 676 L           45
400  3 94          B     2000                                       B  4  0554  B !00             45
401  3 95   *
402  3 96   * RETRIEVE OUTPUT PROGRAM
403  3 97   *
404  3 98   OUTPT  RTW   SYSTP,2000                                 B  8  0558  L %U1 !00 R        45
405  3 99          B     NOISE                                      B  4  0566  B 637             45
406  4 00          SW    GMRK1                                      B  4  0570  , 835             45
407  4 01          LCA   GMRK1,3998                                 B  7  0574  L 835 I98          45
408  4 02          RTW   SYSTP,2000                                 B  8  0581  L %U1 !00 R        46
409  4 03          B     NOISE                                      B  4  0589  B 637             46
410  4 04          RTW   SYSTP,2000                                 B  8  0593  L %U1 !00 R        46
411  4 05          B     NOISE                                      B  4  0601  B 637             46
412  4 06          SW    3998                                       B  4  0605  , I98             46
413  4 07          RTW   SYSTP,2000                                 B  8  0609  L %U1 !00 R        46
414  4 08          B     NOISE                                      B  4  0617  B 637             47
```



```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
415  4 09          BER   RDERR                                      B  5  0621  B 676 L           47
416  4 10          CW    GMRK1,3998                                 B  7  0626  ) 835 I98          47
417  4 11          B     2000                                       B  4  0633  B !00             47
418  4 12   *
419  4 13   * TEST FOR NOISE RECORDS
420  4 14   *
421  4 15   NOISE  SBR   NOSXT&3                                    B  4  0637  H 675             47
422  4 16          SBR   XR1                                        B  4  0641  H 089             47
423  4 17          MZ    &9,XR1                                     B  7  0645  Y 811 089         47
424  4 18   NOIS2  BCE   4000-12&X1,0,}                            B  8  0652  B IY8 000 } GMARK   48
425  4 19          CHAIN 12                                         B                    MACRO
426                BCE                                              B  1  0660  B           GEN     48
427                BCE                                              B  1  0661  B           GEN     48
428                BCE                                              B  1  0662  B           GEN     48
429                BCE                                              B  1  0663  B           GEN     48
430                BCE                                              B  1  0664  B           GEN     48
431                BCE                                              B  1  0665  B           GEN     48
432                BCE                                              B  1  0666  B           GEN     49
433                BCE                                              B  1  0667  B           GEN     49
434                BCE                                              B  1  0668  B           GEN     49
435                BCE                                              B  1  0669  B           GEN     49
436                BCE                                              B  1  0670  B           GEN     49
437                BCE                                              B  1  0671  B           GEN     49
438  4 20   NOSXT  B     0                                          B  4  0672  B 000             49
439  4 21   *
440  4 22   * READ REDUNDANCY ROUTINE
441  4 23   *
442  4 24   RDERR  SBR   XR1                                        B  4  0676  H 089             50
443  4 25          SBR   RDXT&3                                     B  4  0680  H 726             50
444  4 26          MZ    &9,XR1                                     B  7  0684  Y 811 089         50
445  4 27          MCW   4000-10&X1,RDTRY&7                         B  7  0691  M IZ0 717         50
446  4 28   BSP    BSP   SYSTP                                      B  5  0698  U %U1 B           50
447  4 29          MCW   &9,RDCT#1                                  B  7  0703  M 811 812         50
448  4 30   RDTRY  RTW   SYSTP,0                                    B  8  0710  L %U1 000 R       51
449  4 31          BER   *&5                                        B  5  0718  B 727 L           51
450  4 32   RDXT   B     0                                          B  4  0723  B 000             51
451  4 33          BSP   SYSTP                                      B  5  0727  U %U1 B           51
452  4 34          S     &1,RDCT                                    B  7  0732  S 806 812         51
453  4 35          BWZ   RDTRY,RDCT,B                              B  8  0739  V 710 812 B       51
454  4 36          H     0,191                                      B  7  0747  . 000 191         52
455  4 37          MCW   RDTRY&7,*&8                                B  7  0754  M 717 768         52
456  4 38          RTW   SYSTP,0                                    B  8  0761  L %U1 000 R       52
457  4 39          BSS   BSP,E                                      B  5  0769  B 698 E           52
458  4 40          H     0,111                                      B  7  0774  . 000 111         52
459  4 41          B     RDXT                                       B  4  0781  B 723             52
460  4 42          LTORG *                                          B              0785
                   DCW   @U99@                                      B  3  0787           LIT     53
                   DCW   @999999    HEADR@                          B 15  0802           LIT     53
                   DCW   &PASSAB&13                                 B  3  0805  W63      ADCON   53
                   DCW   &1                                         B  1  0806           LIT     53
```

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

           BYCTB  DCW   #01                                        B   1  0807              AREA    53
                  DCW   @!13@                                     B   3  0810              LIT     53
                  DCW   &9                                        B   1  0811              LIT     53
           RDCTB  DCW   #01                                        B   1  0812              AREA    54
461  4 43         DCW   #22                                        B  22  0834                      54
462  4 44  GMRK1  DCW   @}@                                       B   1  0835              GMARK   54
463  4 45         EX    0                                         B             B 000               55
```



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

464  4 46         JOB   AUTOCODER-PASS 1 RETRIEVE UPDATE -VERSION 3 B
465  4 47         SFX   R                                         R
466  4 48  SYSTP  EQU   %U1                                       R      %U1
467  4 49  LTAPSW EQU   2725                                      R      2725
468  4 50         ORG   2000                                      R            2000
469  4 51         BSS   LIST,G                                    R   5  2000  B J26 G             58
470  4 52         CW    ENDRT                                     R   4  2005  ) K12               58
471  4 53  START  RTW   SYSTP,1                                   R   8  2009  L %U1 001 R         58
472  4 54         BCE   START,013,}                               R   8  2017  B !09 013 } GMARK   58
473  4 55         CHAIN 12                                        R                      MACRO
474               BCE                                           R   1  2025  B           GEN     58
475               BCE                                           R   1  2026  B           GEN     58
476               BCE                                           R   1  2027  B           GEN     58
477               BCE                                           R   1  2028  B           GEN     59
478               BCE                                           R   1  2029  B           GEN     59
479               BCE                                           R   1  2030  B           GEN     59
480               BCE                                           R   1  2031  B           GEN     59
481               BCE                                           R   1  2032  B           GEN     59
482               BCE                                           R   1  2033  B           GEN     59
483               BCE                                           R   1  2034  B           GEN     59
484               BCE                                           R   1  2035  B           GEN     60
485               BCE                                           R   1  2036  B           GEN     60
486  4 56         BER   RDERR                                     R   5  2037  B !46 L             60
487  4 57         B     333                                       R   4  2042  B 333               60
488  4 58  RDERR  BSP   SYSTP                                     R   5  2046  U %U1 B             60
489  4 59         MCW   &9,RDCT#1                                R   7  2051  M K06 K07           60
490  4 60  RDTRY  RTW   SYSTP,1                                   R   8  2058  L %U1 001 R         60
491  4 61         BER   *&5                                       R   5  2066  B !75 L             61
492  4 62         B     333                                       R   4  2071  B 333               61
493  4 63         BSP   SYSTP                                     R   5  2075  U %U1 B             61
494  4 64         S     &1,RDCT                                   R   7  2080  S K08 K07           61
495  4 65         BWZ   RDTRY,RDCT,B                             R   8  2087  V !58 K07 B         61
496  4 66         H     0,191                                     R   7  2095  . 000 191           61
497  4 67  AGAIN  RTW   SYSTP,1                                   R   8  2102  L %U1 001 R         62
498  4 68         BSS   RDERR,E                                  R   5  2110  B !46 E             62
499  4 69         H     0,111                                     R   7  2115  . 000 111           62
500  4 70         B     333                                       R   4  2122  B 333               62
501  4 71  LIST   SW    ENDRT                                     R   4  2126  , K12               62
502  4 72         LCA   ENDRT,1998                                R   7  2130  L K12 Z98           62
503  4 73         RTW   SYSTP,333                                 R   8  2137  L %U1 333 R         63
504  4 74         BEF   GET                                       R   5  2145  B J54 K             63
505  4 75         B     LIST                                      R   4  2150  B J26              63
506  4 76  GET    BSP   SYSTP                                     R   5  2154  U %U1 B             63
507  4 77         BSP   SYSTP                                     R   5  2159  U %U1 B             63
508  4 78         CW    ENDRT,1998                                R   7  2164  ) K12 Z98          63
509  4 79         SW    LTAPSW                                    R   4  2171  , P25              63
510  4 80         MCW   @333@,RDTRY&6                            R   7  2175  M K11 !64          64
511  4 81         MCW   @333@,AGAIN&6                            R   7  2182  M K11 J08          64
512  4 82         RTW   SYSTP,333                                 R   8  2189  L %U1 333 R         64
513  4 83         BER   RDERR                                     R   5  2197  B !46 L             64
```

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

514  4 84          B     333                                          R   4  2202  B 333              64
515  4 85          LTORG *                                            R           2206
                   DCW   &9                                         R   1  2206              LIT     64
             RDCTR DCW   #01                                        R   1  2207              AREA    64
                   DCW   &1                                         R   1  2208              LIT     65
                   DCW   @333@                                      R   3  2211              LIT     65
516  4 86   ENDRT DCW   @}@                                        R   1  2212              GMARK   65
517  4 87          EX    0                                          R          B 000              66
```



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

518  4 88          JOB   AUTOCODER-PASS 1 COPY SYSTEM TAPE -VERSION 3 R
519  4 89          SFX   U                                          U
520  4 90          ORG   87                                         U           0087
521  4 91   XR1    DCW   000                                        U   3  0089                    69
522  4 92          DC    00                                         U   2  0091                    69
523  4 93   XR2    DCW   000                                        U   3  0094                    69
524  4 94          DC    00                                         U   2  0096                    69
525  4 95   XR3    DCW   000                                        U   3  0099                    69
526  4 96          DC    00                                         U   2  0101                    69
527  4 97   SYSTP  EQU   %U1                                        U      %U1
528  4 98   OUTAP  EQU   %U6                                        U      %U6
529  4 99   INPUT  EQU   1500                                       U      1500
530  5 00   *
531  5 01   * BEGIN PROGRAM
532  5 02   *
533  5 03          ORG   333                                        U           0333
534  5 04          SW    ENDUP                                      U   4  0333  , /39              70
535  5 05          RWD   SYSTP                                      U   5  0337  U %U1 R            70
536  5 06          RWD   OUTAP                                      U   5  0342  U %U6 R            70
537  5 07          CC    1                                          U   2  0347  F 1                70
538  5 08          CS    332                                        U   4  0349  / 332              70
539  5 09          CS                                               U   1  0353  /                  70
540  5 10          B     CLEAR                                      U   4  0354  B '21              70
541  5 11          BSS   COPY,C                                     U   5  0358  B 525 C            71
542  5 12   *
543  5 13   * RETRIEVE UPDATE PROGRAM
544  5 14   *
545  5 15          RTW   SYSTP,INPUT                                U   8  0363  L %U1 V00 R        71
546  5 16          SBR   XR1                                        U   4  0371  H 089              71
547  5 17          MN    0&X1                                       U   4  0375  D 0'0              71
548  5 18          SW                                               U   1  0379  ,                  71
549  5 19          DCW   @N0000@                                    U   5  0384                     71
550  5 20          B     NOISE                                      U   4  0385  B 759              71
551  5 21          BER   RDERR                                      U   5  0389  B 798 L            72
552  5 22          WTW   OUTAP,INPUT                                U   8  0394  L %U6 V00 W        72
553  5 23          BER   WTERR                                      U   5  0402  B 928 L            72
554  5 24          B     CLEAR                                      U   4  0407  B '21              72
555  5 25   BYPSS  RTW   SYSTP,INPUT                                U   8  0411  L %U1 V00 R        72
556  5 26          C     INPUT&19,@999999    HEADR@                 U   7  0419  C V19 '70          72
557  5 27          BU    BYPSS                                      U   5  0426  B 411 /            73
558  5 28          RTW   SYSTP,INPUT                                U   8  0431  L %U1 V00 R        73
559  5 29          BEF   GETUP                                      U   5  0439  B 448 K            73
560  5 30          B     BYPSS                                      U   4  0444  B 411              73
561  5 31   GETUP  BCE   LDUPD,BYCT,3                              U   8  0448  B 498 '72 3        73
562  5 32          RTW   SYSTP,INPUT                                U   8  0456  L %U1 V00 R        73
563  5 33          DCW   @N00000000000000@                         U  14  0477                     74
564  5 34          B     NOISE                                      U   4  0478  B 759              74
565  5 35          BER   RDERR                                      U   5  0482  B 798 L            74
566  5 36          A     &1,BYCT#1                                  U   7  0487  A '71 '72          74
567  5 37          B     GETUP                                      U   4  0494  B 448              74
```

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

568  5 38   LDUPD  CS    199                                          U   4  0498  / 199              74
569  5 39          CS    80                                           U   4  0502  / 080              75
570  5 40          SW    6,16                                         U   7  0506  , 006 016          75
571  5 41          SW    21                                           U   4  0513  , 021              75
572  5 42          B     HEAD                                         U   4  0517  B N32              75
573  5 43          B     BEGIN                                        U   4  0521  B V00              75
574  5 44   *
575  5 45   * COPY SYSTEM
576  5 46   *
577  5 47   COPY   RTW   SYSTP,INPUT                                  U   8  0525  L %U1 V00 R         75
578  5 48          SBR   XR1                                          U   4  0533  H 089              75
579  5 49          MN    0&X1                                         U   4  0537  D 0'0              76
580  5 50          SW                                                 U   1  0541  ,                  76
581  5 51          BEF   EOF                                          U   5  0542  B 601 K            76
582  5 52          B     NOISE                                        U   4  0547  B 759              76
583  5 53          BER   RDERR                                        U   5  0551  B 798 L            76
584  5 54   *
585  5 55   * TEST END OF LIBRARY
586  5 56   *
587  5 57   SWICH  NOP   WTAP1                                        U   4  0556  N 580              76
588  5 58          SW    LIBSW                                        U   4  0560  , '79              76
589  5 59          C     INPUT&10,@999999@                            U   7  0564  C V10 '78          77
590  5 60          BU    WTAP1                                        U   5  0571  B 580 /            77
591  5 61          CW    LIBSW#1                                      U   4  0576  ) '79              77
592  5 62   *
593  5 63   * WRITE TAPE
594  5 64   *
595  5 65   WTAP1  WTW   OUTAP,INPUT                                  U   8  0580  L %U6 V00 W         77
596  5 66          BER   WTERR                                        U   5  0588  B 928 L            77
597  5 67   *
598  5 68   * DO NEXT BLOCK
599  5 69   *
600  5 70   REOUT  B     CLEAR                                        U   4  0593  B '21              77
601  5 71          B     COPY                                         U   4  0597  B 525              77
602  5 72   *
603  5 73   * END OF FILE
604  5 74   *
605  5 75   EOF    WTM   OUTAP                                        U   5  0601  U %U6 M            78
606  5 76          BW    ISMOR,EOFSW#1                                U   8  0606  V 727 '80 1        78
607  5 77          B     CLEAR                                        U   4  0614  B '21              78
608  5 78          LCA   ENDUP,3998                                   U   7  0618  L /39 I98          78
609  5 79          BW    ERASE,UPDSW                                  U   8  0625  V 637 /26 1        78
610  5 80          B     HALT1                                        U   4  0633  B 669              78
611  5 81   *
612  5 82   * ERASE TAPE
613  5 83   *
614  5 84   ERASE  SKP   OUTAP                                        U   5  0637  U %U6 E            79
615  5 85          WT    OUTAP,INPUT                                  U   8  0642  M %U6 V00 W        79
616  5 86          BCE   HALT1,SKPCT-1,2                             U   8  0650  B 669 '81 2        79
617  5 87          A     &1,SKPCT#2                                   U   7  0658  A '71 '82          79
```



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

618  5 88          B     ERASE                                        U   4  0665  B 637              79
619  5 89   *
620  5 90   * END OF COPY RUN
621  5 91   *
622  5 92   HALT1  MCW   @1401 AUTOCODER SYSTEM COPIED ON TAPE UNIT 6@,243  U   7  0669  M /25 243          79
623  5 93          W                                                  U   1  0676  2                  80
624  5 94          CC    1                                            U   2  0677  F 1                80
625  5 95          BW    CPYND,UPDSW#1                                U   8  0679  V 692 /26 1        80
626  5 96          RWD   OUTAP                                        U   5  0687  U %U6 R            80
627  5 97   CPYND  RWD   SYSTP                                       U   5  0692  U %U1 R            80
628  5 98          H     0,122                                        U   7  0697  . 000 122          80
629  5 99          B     CLEAR                                        U   4  0704  B '21              80
630  6 00          S     SKPCT                                        U   4  0708  S '82              81
631  6 01          MCW   @N@,SWICH                                   U   7  0712  M /27 556          81
632  6 02          SW    EOFSW                                        U   4  0719  , '80              81
633  6 03          B     COPY                                         U   4  0723  B 525              81
634  6 04   *
635  6 05   * SET UP COPY OF REST OF SYSTEM
636  6 06   *
637  6 07   ISMOR  BW    BDEOF,LIBSW                                  U   8  0727  V 750 '79 1        81
638  6 08          CW    EOFSW                                        U   4  0735  ) '80              81
639  6 09          MCW   @B@,SWICH                                   U   7  0739  M /28 556          81
640  6 10          B     REOUT                                        U   4  0746  B 593              82
641  6 11   *
642  6 12   * FALSE END OF FILE
643  6 13   *
644  6 14   BDEOF  BSP   OUTAP                                        U   5  0750  U %U6 B            82
645  6 15          B     REOUT                                        U   4  0755  B 593              82
646  6 16   *
647  6 17   * TEST FOR NOISE RECORDS
648  6 18   *
649  6 19   NOISE  SBR   NOSXT&3                                      U   4  0759  H 797              82
650  6 20          SBR   XR2                                          U   4  0763  H 094              82
651  6 21          MZ    &9,XR2                                       U   7  0767  Y /29 094          82
652  6 22   NOIS2  BCE   4000-26&X2,INPUT&13,}                       U   8  0774  B IP4 V13 } GMARK  82
653  6 23          CHAIN 12                                           U                 MACRO
654                BCE                                              U   1  0782  B           GEN    83
655                BCE                                              U   1  0783  B           GEN    83
656                BCE                                              U   1  0784  B           GEN    83
657                BCE                                              U   1  0785  B           GEN    83
658                BCE                                              U   1  0786  B           GEN    83
659                BCE                                              U   1  0787  B           GEN    83
660                BCE                                              U   1  0788  B           GEN    83
661                BCE                                              U   1  0789  B           GEN    84
662                BCE                                              U   1  0790  B           GEN    84
663                BCE                                              U   1  0791  B           GEN    84
664                BCE                                              U   1  0792  B           GEN    84
665                BCE                                              U   1  0793  B           GEN    84
666  6 24   NOSXT  B     0                                            U   4  0794  B 000              84
667  6 25   *
```

```
SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
668  6 26   * READ REDUNDANCY ROUTINE
669  6 27   *
670  6 28   RDERR  SBR   RDXT&3                                      U   4  0798  H 855              84
671  6 29          SBR   XR3                                         U   4  0802  H 099              85
672  6 30          MZ    &9,XR3                                      U   7  0806  Y /29 099          85
673  6 31          MCW   4000-24&X3,RDTRY&7                          U   7  0813  M IG6 846          85
674  6 32          MN    RDTRY&3,BSP1&3                              U   7  0820  D 842 830          85
675  6 33   BSP1   BSP   SYSTP                                       U   5  0827  U %U1 B            85
676  6 34          MCW   &9,RDCT#1                                   U   7  0832  M /29 /30          85
677  6 35   RDTRY  RT    SYSTP,0                                     U   8  0839  M %U1 000 R        86
678  6 36          BER   *&5                                         U   5  0847  B 856 L            86
679  6 37   RDXT   B     0                                           U   4  0852  B 000              86
680  6 38          MN    RDTRY&3,BSP2&3                              U   7  0856  D 842 866          86
681  6 39   BSP2   BSP   SYSTP                                       U   5  0863  U %U1 B            86
682  6 40          S     &1,RDCT                                     U   7  0868  S '71 /30          86
683  6 41          BWZ   RDTRY,RDCT,B                               U   8  0875  V 839 /30 B        87
684  6 42          MN    RDTRY&3,*&7                                 U   7  0883  D 842 896          87
685  6 43          H     0,190                                       U   7  0890  . 000 190          87
686  6 44          MCW   RDTRY&7,*&8                                 U   7  0897  M 846 911          87
687  6 45          RT    SYSTP,0                                     U   8  0904  M %U1 000 R        87
688  6 46          BSS   BSP1,E                                     U   5  0912  B 827 E            88
689  6 47          H     0,111                                       U   7  0917  . 000 111          88
690  6 48          B     RDXT                                        U   4  0924  B 852              88
691  6 49   *
692  6 50   * WRITE REDUNDANCY ROUTINE
693  6 51   *
694  6 52   WTERR  SBR   WTXT&3                                      U   4  0928  H 998              88
695  6 53          SBR   XR3                                         U   4  0932  H 099              88
696  6 54          MZ    &9,XR3                                      U   7  0936  Y /29 099          88
697  6 55          MCW   4000-6&X3,WTTRY&7                          U   7  0943  M II4 989          88
698  6 56          MN    WTTRY&3,BSP3&3                              U   7  0950  D 985 960          89
699  6 57   BSP3   BSP   OUTAP                                      U   5  0957  U %U6 B            89
700  6 58          SKP   SYSTP                                       U   5  0962  U %U1 E            89
701  6 59          BCE   SUBCT,WTCT-1,1                              U   8  0967  B 999 /31 1        89
702  6 60          A     &1,WTCT#2                                   U   7  0975  A '71 /32          89
703  6 61   WTTRY  WT    OUTAP,0                                     U   8  0982  M %U6 000 W        90
704  6 62          BER   BSP3                                        U   5  0990  B 957 L            90
705  6 63   WTXT   B     0                                           U   4  0995  B 000              90
706  6 64   SUBCT  S     WTCT                                        U   4  0999  S /32              90
707  6 65          MN    WTTRY&3,*&7                                 U   7  1003  D 985 '16          90
708  6 66          H     0,160                                       U   7  1010  . 000 160          90
709  6 67          B     WTTRY                                       U   4  1017  B 982              90
710  6 68   *
711  6 69   * CLEAR OUTPUT AREA
712  6 70   *
713  6 71   CLEAR  SBR   CLRXT&3                                     U   4  1021  H '55              91
714  6 72          MCW   @I99@,CLR&3                                 U   7  1025  M /35 '35          91
715  6 73   CLR    CS    3999                                        U   4  1032  / I99              91
716  6 74          SBR   CLR&3                                       U   4  1036  H '35              91
717  6 75          C     CLR&3,&INPUT-1                              U   7  1040  C '35 /38          91
```



```
SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
718  6 76          BU    CLR                                         U   5  1047  B '32 /           91
719  6 77   CLRXT  B     0                                           U   4  1052  B 000              91
720  6 78          LTORG *                                           U              1056
                   DCW   @999999    HEADR@                         U  15  1070              LIT     92
                   DCW   &1                                        U   1  1071              LIT     92
              BYCTU  DCW   #01                                       U   1  1072              AREA    92
                   DCW   @999999@                                  U   6  1078              LIT     92
              LIBSWU DCW   #01                                       U   1  1079              AREA    92
              EOFSWU DCW   #01                                       U   1  1080              AREA    92
              SKPCTU DCW   #02                                       U   2  1082              AREA    92
                   DCW   @1401 AUTOCODER SYSTEM COPIED ON TAPE UNIT 6@ U  43  1125              LIT     94
              UPDSWU DCW   #01                                       U   1  1126              AREA    94
                   DCW   @N@                                       U   1  1127              LIT     94
                   DCW   @B@                                       U   1  1128              LIT     94
                   DCW   &9                                        U   1  1129              LIT     94
              RDCTU  DCW   #01                                       U   1  1130              AREA    95
              WTCTU  DCW   #02                                       U   2  1132              AREA    95
                   DCW   @I99@                                     U   3  1135              LIT     95
                   DCW   &INPUTU-1                                 U   3  1138  U99         ADCON   95
721  6 79   ENDUP  DCW   @)@                                        U   1  1139              GMARK   95
722  6 80          EX    0                                           U              B 000             96
```

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

723  6 81          JOB   AUTOCODER-PASS 1 UPDATE LIBRARY -VERSION 3 U
724  6 82   IMAGE  EQU   101                                       U      0101
725  6 83   *
726  6 84   * BEGIN UPDATE
727  6 85   *
728  6 86          ORG   INPUT                                     U            1500
729  6 87   BEGIN  RWD   SYSTP                                     U   5  1500  U %U1 R             99
730  6 88          CW    HEDSW,ENDSW                               U   7  1505  ) ?91 ?98           99
731  6 89          MCW   &IMAGE&13,NOIS2&6                        U   7  1512  M ?30 780           99
732  6 90          LCA   ENDUP,IMAGE&80                           U   7  1519  L /39 181           99
733  6 91          RT    SYSTP,IMAGE                               U   8  1526  M %U1 101 R        99
734  6 92          DCW   @N00000000000000@                       U  14  1547                     100
735  6 93          B     NOISE                                     U   4  1548  B 759              100
736  6 94          CS    IMAGE&79                                  U   4  1552  / 180              100
737  6 95          B     RDTP                                      U   4  1556  B M17              100
738  6 96   REBEG  B     READ                                      U   4  1560  B L24              100
739  6 97          BW    SERCH,INSW                                U   8  1564  V V84 ?73 1        100
740  6 98          BW    SERCH,DELSW                               U   8  1572  V V84 ?79 1        101
741  6 99          B     REBEG                                     U   4  1580  B V60              101
742  7 00   *
743  7 01   * SEARCH FOR CORRECT SUBROUTINE
744  7 02   *
745  7 03   SERCH  B     DOCTL                                     U   4  1584  B N94              101
746  7 04          C     11,@999999@                               U   7  1588  C 011 ?36           101
747  7 05          BE    CLNUP                                     U   5  1595  B K40 S             101
748  7 06          C     8,NAME#3                                  U   7  1600  C 008 ?39           101
749  7 07          BE    FOUND                                     U   5  1607  B X30 S             102
750  7 08          BH    QUIT                                      U   5  1612  B P75 U             102
751  7 09          MCW   8,NAME                                    U   7  1617  M 008 ?39           102
752  7 10          S     SEQNO                                     U   4  1624  S A67              102
753  7 11   LOOP1  BW    HEADR,HEDSW                               U   8  1628  V W56 ?91 1        102
754  7 12          B     RDTP                                      U   4  1636  B M17              102
755  7 13          BW    HEADR,HEDSW                               U   8  1640  V W56 ?91 1        103
756  7 14   MORE   B     WTAP2                                     U   4  1648  B M95              103
757  7 15          B     LOOP1                                     U   4  1652  B W28              103
758  7 16   *
759  7 17   * HEADER LOCATED ON TAPE
760  7 18   *
761  7 19   HEADR  BW    PAST,ENDSW                                U   8  1656  V W89 ?98 1        103
762  7 20          C     IMAGE&7,NAME                              U   7  1664  C 108 ?39           103
763  7 21          BE    FOUND                                     U   5  1671  B X30 S             103
764  7 22          CW    HEDSW                                     U   4  1676  ) ?91              104
765  7 23          BL    PAST                                      U   5  1680  B W89 T            104
766  7 24          B     MORE                                      U   4  1685  B W48              104
767  7 25   *
768  7 26   * SUBROUTINE NOT ON TAPE
769  7 27   *
770  7 28   PAST   BSP   SYSTP                                     U   5  1689  U %U1 B             104
771  7 29          CS    IMAGE&79                                  U   4  1694  / 180              104
772  7 30          CW    HEDSW                                     U   4  1698  ) ?91              104
```



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

773  7 31          BW    UNKWN,DELSW                               U   8  1702  V Q01 ?79 1        104
774  7 32          C     22,@  @                                   U   7  1710  C 022 ?41           105
775  7 33          BU    UNKWN                                     U   5  1717  B Q01 /             105
776  7 34   BACK   B     PTCTL                                     U   4  1722  B O37              105
777  7 35          B     INSER                                     U   4  1726  B Y06              105
778  7 36   *
779  7 37   * SUBROUTINE FOUND
780  7 38   *
781  7 39   FOUND  C     22,@  @                                   U   7  1730  C 022 ?41           105
782  7 40          BU    PARTL                                     U   5  1737  B Y46 /             105
783  7 41   *
784  7 42   * DELETE AND/OR INSERT WHOLE SUBROUTINES
785  7 43   *
786  7 44   ALL    MCW   @DELET@,218                               U   7  1742  M ?46 218           105
787  7 45          B     PTCTL                                     U   4  1749  B O37              106
788  7 46          S     SEQNO                                     U   4  1753  S A67              106
789  7 47   LOOP2  B     PRINT                                     U   4  1757  B O72              106
790  7 48          B     RDTP                                      U   4  1761  B M17              106
791  7 49          BW    EXIT,HEDSW                                U   8  1765  V X77 ?91 1        106
792  7 50          B     LOOP2                                     U   4  1773  B X57              106
793  7 51   EXIT   BSP   SYSTP                                     U   5  1777  U %U1 B            106
794  7 52          CS    IMAGE&79                                  U   4  1782  / 180              107
795  7 53          CW    HEDSW                                     U   4  1786  ) ?91              107
796  7 54          BW    REBEG,DELSW                               U   8  1790  V V60 ?79 1        107
797  7 55   *
798  7 56   * INSERTION OF WHOLE SUBROUTINE
799  7 57   *
800  7 58          B     DOCTL                                     U   4  1798  B N94              107
801  7 59          B     PTCTL                                     U   4  1802  B O37              107
802  7 60   INSER  S     SEQNO                                     U   4  1806  S A67              107
803  7 61   LOOP3  B     READ                                      U   4  1810  B L24              107
804  7 62          BW    SERCH,INSW                                U   8  1814  V V84 ?73 1        108
805  7 63          BW    SERCH,DELSW                               U   8  1822  V V84 ?79 1        108
806  7 64          B     DOOUT                                     U   4  1830  B L07              108
807  7 65          B     PRINT                                     U   4  1834  B O72              108
808  7 66          B     WTAP2                                     U   4  1838  B M95              108
809  7 67          B     LOOP3                                     U   4  1842  B Y10              108
810  7 68   *
811  7 69   * DELETE AND/OR INSERT PARTS
812  7 70   *
813  7 71   PARTL  S     XR3&2                                     U   4  1846  S 101              108
814  7 72          BWZ   SOME,21,2                                 U   8  1850  V Y81 021 2        109
815  7 73          C     24,@  @                                   U   7  1858  C 024 ?41           109
816  7 74          BE    ALL                                       U   5  1865  B X42 S            109
817  7 75          A     &2,XR3                                    U   7  1870  A ?47 099          109
818  7 76          SW    23                                        U   4  1877  , 023              109
819  7 77   *
820  7 78   * SCAN FOR VALUES OF OPERANDS
821  7 79   *
822  7 80   SOME   SW    OPSW#1                                    U   4  1881  , ?48              109
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
823  7 81   TEST1  BCE   TWOOP,21&X3,,                             U   8  1885  B Z16 0B1 ,        110
824  7 82          C     22&X3,@  @                                U   7  1893  C 0B2 ?41          110
825  7 83          BE    TWOOP                                     U   5  1900  B Z16 S            110
826  7 84          A     &1,XR3                                    U   7  1905  A ?49 099          110
827  7 85          B     TEST1                                     U   4  1912  B Y85              110
828  7 86   TWOOP  ZA    20&X3,WK1#4                               U   7  1916  ? 0B0 ?53          110
829  7 87          A     @0@,WK1                                   U   7  1923  A ?54 ?53          111
830  7 88          BCE   NXTOP,21&X3,,                            U   8  1930  B Z42 0B1 ,        111
831  7 89          B     OUT                                       U   4  1938  B !08             111
832  7 90   NXTOP  SW    22&X3                                     U   4  1942  , 0B2             111
833  7 91          SBR   XR2                                       U   4  1946  H 094             111
834  7 92   ADD    A     &1,XR3                                    U   7  1950  A ?49 099          111
835  7 93          C     22&X3,@  @                                U   7  1957  C 0B2 ?41          112
836  7 94          BU    ADD                                       U   5  1964  B Z50 /            112
837  7 95          ZA    20&X3,WK2#4                               U   7  1969  ? 0B0 ?58          112
838  7 96          A     @0@,WK2                                   U   7  1976  A ?54 ?58          112
839  7 97          C     WK1,WK2                                   U   7  1983  C ?53 ?58          112
840  7 98          BL    BADST                                     U   5  1990  B Q59 T            112
841  7 99          BE    ONOP                                      U   5  1995  B K20 S            113
842  8 00   IS2OP  CW    OPSW                                      U   4  2000  ) ?48              113
843  8 01   CLRWM  CW    1&X2                                      U   4  2004  ) 0!1              113
844  8 02   OUT    CW    23                                        U   4  2008  ) 023              113
845  8 03          BW    *&8,OPSW                                  U   8  2012  V !27 ?48 1        113
846  8 04          MCW   @DELET@,218                              U   7  2020  M ?63 218          113
847  8 05          B     PTCTL                                     U   4  2027  B O37              113
848  8 06   *
849  8 07   * SEARCH FOR FIRST STATEMENT
850  8 08   *
851  8 09   COMP   C     WK1,SEQNO                                 U   7  2031  C ?53 A67          114
852  8 10          BE    GOTIT                                     U   5  2038  B !70 S            114
853  8 11          A     &1,SEQNO                                  U   7  2043  A ?49 A67          114
854  8 12          B     WTAP2                                     U   4  2050  B M95              114
855  8 13          B     RDTP                                      U   4  2054  B M17              114
856  8 14          BW    NTFND,HEDSW                               U   8  2058  V Q84 ?91 1        114
857  8 15          B     COMP                                      U   4  2066  B !31              114
858  8 16   *
859  8 17   * FIRST STATEMENT FOUND
860  8 18   *
861  8 19   GOTIT  BW    QINSR,OPSW                                U   8  2070  V J46 ?48 1        115
862  8 20   *
863  8 21   * SEARCH FOR SECOND STATEMENT
864  8 22   *
865  8 23   COMP2  B     PRINT                                     U   4  2078  B O72              115
866  8 24          B     RDTP                                      U   4  2082  B M17              115
867  8 25          C     WK2,SEQNO                                 U   7  2086  C ?58 A67          115
868  8 26          BH    BSPC                                      U   5  2093  B J10 U            115
869  8 27          BW    NTFND,HEDSW                               U   8  2098  V Q84 ?91 1        115
870  8 28          B     COMP2                                     U   4  2106  B !78              116
871  8 29   *
872  8 30   * SECOND STATEMENT FOUND
```



```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
873  8 31   *
874  8 32   BSPC   BSP   SYSTP                                     U   5  2110  U %U1 B            116
875  8 33          CS    IMAGE&79                                  U   4  2115  / 180              116
876  8 34          S     &1,SEQNO                                  U   7  2119  S ?49 A67          116
877  8 35   THRU   BW    LOOP3,DELSW                               U   8  2126  V Y10 ?79 1        116
878  8 36          B     DOCTL                                     U   4  2134  B N94              116
879  8 37          B     PTCTL                                     U   4  2138  B O37              116
880  8 38          B     INSR&4                                    U   4  2142  B J77              117
881  8 39   *
882  8 40   * TEST INSERT OR DELETE
883  8 41   *
884  8 42   QINSR  BW    INSR,INSW                                 U   8  2146  V J73 ?73 1        117
885  8 43          B     PRINT                                     U   4  2154  B O72              117
886  8 44          S     &1,SEQNO                                  U   7  2158  S ?49 A67          117
887  8 45          CS    IMAGE&79                                  U   4  2165  / 180              117
888  8 46          B     THRU                                      U   4  2169  B J26              117
889  8 47   *
890  8 48   * INSERT STATEMENTS
891  8 49   *
892  8 50   INSR   B     WTAP2                                     U   4  2173  B M95              117
893  8 51          B     READ                                      U   4  2177  B L24              118
894  8 52          BW    SERCH,INSW                                U   8  2181  V V84 ?73 1        118
895  8 53          BW    SERCH,DELSW                               U   8  2189  V V84 ?79 1        118
896  8 54          B     DOOUT                                     U   4  2197  B L07              118
897  8 55          CW    SEQSW#1                                   U   4  2201  ) ?64              118
898  8 56          B     PRINT                                     U   4  2205  B O72              118
899  8 57          S     &1,SEQNO                                  U   7  2209  S ?49 A67          118
900  8 58          B     INSR                                      U   4  2216  B J73              119
901  8 59   ONOP   BW    IS2OP,INSW                                U   8  2220  V !00 ?73 1        119
902  8 60          SW    OPSW                                      U   4  2228  , ?48             119
903  8 61          B     CLRWM                                     U   4  2232  B !04              119
904  8 62   *
905  8 63   * REPLICATE LIBRARY
906  8 64   *
907  8 65   REPET  B     WTAP2                                     U   4  2236  B M95              119
908  8 66   CLNUP  B     RDTP                                      U   4  2240  B M17              119
909  8 67          B     WTAP2                                     U   4  2244  B M95              119
910  8 68          BW    FINAL,ENDSW                               U   8  2248  V K60 ?98 1        120
911  8 69          B     CLNUP                                     U   4  2256  B K40              120
912  8 70   *
913  8 71   * END OF UPDATE - GO TO COPY ROUTINE
914  8 72   *
915  8 73   FINAL  WTM   OUTAP                                     U   5  2260  U %U6 M            120
916  8 74          MCW   &INPUT&13,NOIS2&6                         U   7  2265  M ?67 780          120
917  8 75          CW    LIBSW,EOFSW                               U   7  2272  ) '79 '80         120
918  8 76          CW    UPDSW                                     U   4  2279  ) /26             120
919  8 77          CS    332                                       U   4  2283  / 332              120
920  8 78          CS                                              U   1  2287  /                  121
921  8 79          CC    1                                         U   2  2288  F 1                121
922  8 80   BYP1   RT    SYSTP,IMAGE                               U   8  2290  M %U1 101 R        121
```

```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
 923  8 81          BEF   REOUT                                     U   5  2298  B 593 K            121
 924  8 82          B     BYP1                                      U   4  2303  B K90              121
 925  8 83   *
 926  8 84   * SET UP INSERT CARD
 927  8 85   *
 928  8 86   DOOUT  SBR   OUTXT&3                                   U   4  2307  H L23              121
 929  8 87          MCW   80,IMAGE&79                               U   7  2311  M 080 180          121
 930  8 88          MCW                                           U   1  2318  M                  122
 931  8 89          MCW                                           U   1  2319  M                  122
 932  8 90   OUTXT  B     0                                         U   4  2320  B 000              122
 933  8 91   *
 934  8 92   * READ CARD SUBROUTINE
 935  8 93   *
 936  8 94   READ   SBR   CDXT&3                                   U   4  2324  H M08              122
 937  8 95          BW    RDCD,LSTSW                                U   8  2328  V L40 ?85 1        122
 938  8 96          B     CLNUP                                     U   4  2336  B K40              122
 939  8 97   RDCD   R                                             U   1  2340  1                  122
 940  8 98          CW    INSW,DELSW                                U   7  2341  ) ?73 ?79          123
 941  8 99          C     20,@INSER@                                U   7  2348  C 020 ?72          123
 942  9 00          BU    CKDEL                                     U   5  2355  B L68 /            123
 943  9 01          SW    INSW#1                                    U   4  2360  , ?73              123
 944  9 02          B     CDXT-5                                    U   4  2364  B M00              123
 945  9 03   CKDEL  C     20,@DELET@                                U   7  2368  C 020 ?78          123
 946  9 04          BU    CKREP                                     U   5  2375  B L88 /            123
 947  9 05          SW    DELSW#1                                   U   4  2380  , ?79              124
 948  9 06          B     CDXT-5                                    U   4  2384  B M00              124
 949  9 07   CKREP  C     20,@REPET@                                U   7  2388  C 020 ?84          124
 950  9 08          BE    REPET                                     U   5  2395  B K36 S            124
 951  9 09          BLC   LSTCD                                     U   5  2400  B M09 A            124
 952  9 10   CDXT   B     0                                         U   4  2405  B 000              124
 953  9 11   LSTCD  CW    LSTSW#1                                   U   4  2409  ) ?85              124
 954  9 12          B     CDXT                                      U   4  2413  B M05              125
 955  9 13   *
 956  9 14   * READ TAPE SUBROUTINE
 957  9 15   *
 958  9 16   RDTP   SBR   RTXT&3                                   U   4  2417  H M94              125
 959  9 17          RT    SYSTP,IMAGE                               U   8  2421  M %U1 101 R        125
 960  9 18          SW    IMAGE&80                                  U   4  2429  , 181              125
 961  9 19          DCW   @N000000000@                             U  10  2442                     125
 962  9 20          B     NOISE                                     U   4  2443  B 759              125
 963  9 21          BER   RDERR                                     U   5  2447  B 798 L            125
 964  9 22          CW    HEDSW,ENDSW                               U   7  2452  ) ?91 ?98          126
 965  9 23          C     IMAGE&19,@HEADR@                          U   7  2459  C 120 ?90          126
 966  9 24          BU    RTXT                                      U   5  2466  B M91 /            126
 967  9 25          SW    HEDSW#1                                   U   4  2471  , ?91              126
 968  9 26          C     IMAGE&10,@999999@                         U   7  2475  C 111 ?97          126
 969  9 27          BU    RTXT                                      U   5  2482  B M91 /            126
 970  9 28          SW    ENDSW#1                                   U   4  2487  , ?98              126
 971  9 29   RTXT   B     0                                         U   4  2491  B 000              127
 972  9 30   *
```



```
SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
 973  9 31   * WRITE TAPE SUBROUTINE
 974  9 32   *
 975  9 33   WTAP2  SBR   WT2XT&3                                   U   4  2495  H N31              127
 976  9 34          C     IMAGE&79,BLANK                            U   7  2499  C 180 ?27          127
 977  9 35          BE    WT2XT                                     U   5  2506  B N28 S            127
 978  9 36          WT    OUTAP,IMAGE                               U   8  2511  M %U6 101 W       127
 979  9 37          BER   WTERR                                     U   5  2519  B 928 L            127
 980  9 38          CS    IMAGE&79                                  U   4  2524  / 180              127
 981  9 39   WT2XT  B     0                                         U   4  2528  B 000              128
 982  9 40   *
 983  9 41   * PRINT HEADING
 984  9 42   *
 985  9 43   HEAD   SBR   HDXT&3                                   U   4  2532  H N93              128
 986  9 44          CS    332                                       U   4  2536  / 332              128
 987  9 45          CS                                            U   1  2540  /                  128
 988  9 46          MCW   @1401 AUTOCODER - LIBRARY CHANGES@,251   U   7  2541  M A30 251          128
 989  9 47          MCW   @PAGE@,275                               U   7  2548  M A34 275          128
 990  9 48          A     &1,PGNO#3                                 U   7  2555  A ?49 A37          128
 991  9 49          MCS   PGNO,279                                 U   7  2562  Z A37 279          129
 992  9 50          W                                             U   1  2569  2                  129
 993  9 51          CC    K                                         U   2  2570  F K                129
 994  9 52          CS    279                                       U   4  2572  / 279              129
 995  9 53          MCW   @SEQ  LABEL  OP    OPERANDS@,227         U   7  2576  M A63 227          129
 996  9 54          W                                             U   1  2583  2                  129
 997  9 55          CC    K                                         U   2  2584  F K                129
 998  9 56          CS    228                                       U   4  2586  / 228              130
 999  9 57   HDXT   B     0                                         U   4  2590  B 000              130
1000  9 58   *
1001  9 59   * SET UP CONTROL CARD FOR PRINTING
1002  9 60   *
1003  9 61   DOCTL  SBR   CTLXT&3                                   U   4  2594  H O36              130
1004  9 62          CC    K                                         U   2  2598  F K                130
1005  9 63          CS    332                                       U   4  2600  / 332              130
1006  9 64          CS                                            U   1  2604  /                  130
1007  9 65          MCW   72,271                                   U   7  2605  M 072 271          130
1008  9 66          MCW   22,221                                   U   7  2612  M 022 221          131
1009  9 67          MCW   20,218                                   U   7  2619  M 020 218          131
1010  9 68          MCW   11,212                                   U   7  2626  M 011 212          131
1011  9 69   CTLXT  B     0                                         U   4  2633  B 000              131
1012  9 70   *
1013  9 71   * PRINT CONTROL CARD
1014  9 72   *
1015  9 73   PTCTL  SBR   PTCXT&3                                   U   4  2637  H O57              131
1016  9 74          W                                             U   1  2641  2                  131
1017  9 75          CC    J                                         U   2  2642  F J                131
1018  9 76          CS    332                                       U   4  2644  / 332              132
1019  9 77          CS                                            U   1  2648  /                  132
1020  9 78          BCV   NEWPG                                    U   5  2649  B O58 @            132
1021  9 79   PTCXT  B     0                                         U   4  2654  B 000              132
1022  9 80   *
```

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

1023  9 81   * NEW PAGE
1024  9 82   *
1025  9 83   NEWPG  SBR   NEWXT&3                                          U   4  2658  H O71             132
1026  9 84          CC    1                                                 U   2  2662  F 1              132
1027  9 85          B     HEAD                                              U   4  2664  B N32            132
1028  9 86   NEWXT  B     0                                                 U   4  2668  B 000            133
1029  9 87   *
1030  9 88   * PRINT STATEMENTS
1031  9 89   *
1032  9 90   PRINT  SBR   PTXT&3                                            U   4  2672  H P74            133
1033  9 91          SW    220,214                                           U   7  2676  , 220 214        133
1034  9 92          SW    207                                               U   4  2683  , 207            133
1035  9 93          BCE   COMNT,IMAGE&5,*                                   U   8  2687  B P32 106 *      133
1036  9 94          MCW   IMAGE&71,271                                      U   7  2695  M 172 271        133
1037  9 95          MCW   IMAGE&19,218                                      U   7  2702  M 120 218        134
1038  9 96          MCW   IMAGE&10,212                                      U   7  2709  M 111 212        134
1039  9 97   TSTSQ  BW    SEQNC,SEQSW                                       U   8  2716  V P45 ?64 1      134
1040  9 98          SW    SEQSW                                             U   4  2724  , ?64            134
1041  9 99          B     BUMP                                              U   4  2728  B P53            134
1042 10 00   COMNT  MCW   IMAGE&71,273                                      U   7  2732  M 172 273        134
1043 10 01          MCW                                                     U   1  2739  M                134
1044 10 02          MCW                                                     U   1  2740  M                135
1045 10 03          B     TSTSQ                                             U   4  2741  B P16            135
1046 10 04   SEQNC  MN    SEQNO,204                                         U   7  2745  D A67 204        135
1047 10 05          MCS                                                     U   1  2752  Z                135
1048 10 06   BUMP   A     &1,SEQNO#4                                        U   7  2753  A ?49 A67        135
1049 10 07          W                                                       U   1  2760  2                135
1050 10 08          CS    332                                               U   4  2761  / 332            135
1051 10 09          CS                                                      U   1  2765  /                136
1052 10 10          BCV   NEWPG                                             U   5  2766  B O58 @          136
1053 10 11   PTXT   B     0                                                 U   4  2771  B 000            136
1054 10 12   *
1055 10 13   * SEQUENCE ERROR
1056 10 14   *
1057 10 15   QUIT   CS    332                                               U   4  2775  / 332            136
1058 10 16          CS                                                      U   1  2779  /                136
1059 10 17          MCW   @INPUT CARDS OUT OF SEQUENCE - START OVER@,240    U   7  2780  M B07 240        136
1060 10 18          W                                                       U   1  2787  2                136
1061 10 19          CC    1                                                 U   2  2788  F 1              137
1062 10 20   HALT2  H     0,133                                             U   7  2790  . 000 133        137
1063 10 21          B     HALT2                                             U   4  2797  B P90            137
1064 10 22   *
1065 10 23   * SUBROUTINE UNKNOWN
1066 10 24   *
1067 10 25   UNKWN  BWZ   ISUNK,21,2                                        U   8  2801  V Q21 021 2      137
1068 10 26          C     24,@  @                                           U   7  2809  C 024 ?41        137
1069 10 27          BE    BACK                                              U   5  2816  B X22 S          137
1070 10 28   ISUNK  MCW   @SUBROUTINE UNKNOWN@,299                         U   7  2821  M B25 299        138
1071 10 29          W                                                       U   1  2828  2                138
1072 10 30          CC    L                                                 U   2  2829  F L              138
```



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

1073 10 31          CS    299                                               U   4  2831  / 299            138
1074 10 32   LOOP4  B     READ                                              U   4  2835  B L24            138
1075 10 33          BW    SERCH,INSW                                        U   8  2839  V V84 ?73 1      138
1076 10 34          BW    SERCH,DELSW                                       U   8  2847  V V84 ?79 1      138
1077 10 35          B     LOOP4                                             U   4  2855  B Q35            139
1078 10 36   *
1079 10 37   * BAD CONTROL CARD
1080 10 38   *
1081 10 39   BADST  MCW   @BAD STATEMENT@,299                               U   7  2859  M B38 299        139
1082 10 40          W                                                       U   1  2866  2                139
1083 10 41          CC    L                                                 U   2  2867  F L              139
1084 10 42          CS    299                                               U   4  2869  / 299            139
1085 10 43          CW    1&X2,23                                           U   7  2873  ) 0!1 023        139
1086 10 44          B     LOOP4                                             U   4  2880  B Q35            139
1087 10 45   *
1088 10 46   * STATEMENT DOES NOT EXIST IN SUBROUTINE
1089 10 47   *
1090 10 48   NTFND  MCW   @STATEMENT DOES NOT EXIST@,299                     U   7  2884  M B62 299        140
1091 10 49          W                                                       U   1  2891  2                140
1092 10 50          CC    L                                                 U   2  2892  F L              140
1093 10 51          CS    299                                               U   4  2894  / 299            140
1094 10 52          BW    END99,ENDSW                                       U   8  2898  V R10 ?98 1      140
1095 10 53          B     LOOP4                                             U   4  2906  B Q35            140
1096 10 54   *
1097 10 55   * END OF LIBRARY REACHED BEFORE ROUTINE FOUND
1098 10 56   *
1099 10 57   END99  MCW   @SUBROUTINE UNKNOWN@,299                         U   7  2910  M B80 299        140
1100 10 58          W                                                       U   1  2917  2                141
1101 10 59          CC    L                                                 U   2  2918  F L              141
1102 10 60          CS    299                                               U   4  2920  / 299            141
1103 10 61          MCW   @END OF LIBRARY REACHED@,222                      U   7  2924  M C02 222        141
1104 10 62          W                                                       U   1  2931  2                141
1105 10 63          BSP   SYSTP                                             U   5  2932  U %U1 B          141
1106 10 64          CS    IMAGE&79                                          U   4  2937  / 180            141
1107 10 65   LOOP6  B     READ                                              U   4  2941  B L24            142
1108 10 66          B     LOOP6                                             U   4  2945  B R41            142
1109 10 67          DCW   #50                                               U  50  2998                   144
1110 10 68   BLANK  DC    #29                                               U  29  3027                   145
1111 10 69          LTORG *                                                 U                3028
                    DCW   &IMAGEU&13                                        U   3  3030  114         ADCON  145
                    DCW   @999999@                                          U   6  3036              LIT    145
               NAMEU  DCW   #03                                             U   3  3039              AREA   146
                    DCW   @  @                                              U   2  3041              LIT    146
                    DCW   @DELET@                                           U   5  3046              LIT    146
                    DCW   &2                                                U   1  3047              LIT    146
               OPSWU  DCW   #01                                             U   1  3048              AREA   146
                    DCW   &1                                                U   1  3049              LIT    146
               WK1U   DCW   #04                                             U   4  3053              AREA   146
                    DCW   @0@                                               U   1  3054              LIT    147
               WK2U   DCW   #04                                             U   4  3058              AREA   147
```

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

                     DCW   @DELET@                                           U   5  3063              LIT    147
               SEQSWU DCW   #01                                              U   1  3064              AREA   147
                     DCW   &INPUTU&13                                        U   3  3067  V13         ADCON  147
                     DCW   @INSER@                                           U   5  3072              LIT    147
               INSWU  DCW   #01                                              U   1  3073              AREA   147
                     DCW   @DELET@                                           U   5  3078              LIT    148
               DELSWU DCW   #01                                              U   1  3079              AREA   148
                     DCW   @REPET@                                           U   5  3084              LIT    148
               LSTSWU DCW   #01                                              U   1  3085              AREA   148
                     DCW   @HEADR@                                           U   5  3090              LIT    148
               HEDSWU DCW   #01                                              U   1  3091              AREA   148
                     DCW   @999999@                                          U   6  3097              LIT    148
               ENDSWU DCW   #01                                              U   1  3098              AREA   149
                     DCW   @1401 AUTOCODER - LIBRARY CHANGES@                U  32  3130              LIT    149
                     DCW   @PAGE@                                            U   4  3134              LIT    149
               PGNOU  DCW   #03                                              U   3  3137              AREA   150
                     DCW   @SEQ  LABEL  OP    OPERANDS@                     U  26  3163              LIT    150
               SEQNOU DCW   #04                                              U   4  3167              AREA   150
                     DCW   @INPUT CARDS OUT OF SEQUENCE - START OVER@         U  40  3207              LIT    152
                     DCW   @SUBROUTINE UNKNOWN@                              U  18  3225              LIT    152
                     DCW   @BAD STATEMENT@                                   U  13  3238              LIT    152
                     DCW   @STATEMENT DOES NOT EXIST@                        U  24  3262              LIT    153
                     DCW   @SUBROUTINE UNKNOWN@                              U  18  3280              LIT    154
                     DCW   @END OF LIBRARY REACHED@                          U  22  3302              LIT    155
1112 10 70   3998   DCW   @}@                                                U   1  3998              GMARK  156
1113 10 71         EX    0                                                   U          B 000             157
```



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

1114 10 72         JOB   AUTOCODER-PASS 1 OUTPUT LIBRARY          -VERSION 3 U
1115 10 73         SFX   P                                                   P
1116 10 74   SYSTP  EQU   %U1                                                 P      %U1
1117 10 75   XR1    EQU   89                                                  P      0089
1118 10 76   *
1119 10 77   * BEGIN PROGRAM
1120 10 78   *
1121 10 79         ORG   2000                                                P            2000
1122 10 80         SW    ENDOT                                               P   4  2000  , ?44              160
1123 10 81         LCA   ENDOT,181                                           P   7  2004  L ?44 181          160
1124 10 82         CS                                                        P   1  2011  /                  160
1125 10 83         CS    80                                                  P   4  2012  / 080              160
1126 10 84         SW    6,16                                                P   7  2016  , 006 016          160
1127 10 85         CS    332                                                 P   4  2023  / 332              160
1128 10 86         CS                                                        P   1  2027  /                  160
1129 10 87         CC    1                                                   P   2  2028  F 1                161
1130 10 88         RWD   SYSTP                                              P   5  2030  U %U1 R            161
1131 10 89         RT    SYSTP,101                                           P   8  2035  M %U1 101 R        161
1132 10 90         CS    180                                                 P   4  2043  / 180              161
1133 10 91         SW    106,116                                             P   7  2047  , 106 116          161
1134 10 92         SW    121                                                 P   4  2054  , 121              161
1135 10 93         BSS   DOALL,E                                             P   5  2058  B L28 E            161
1136 10 94   *
1137 10 95   * PRINT AND/OR PUNCH SELECTED MACROS
1138 10 96   *
1139 10 97         CW    HDRSW                                               P   4  2063  ) R32              162
1140 10 98   READ   CC    1                                                   P   2  2067  F 1                162
1141 10 99         B     PRTHD                                               P   4  2069  B N59              162
1142 11 00         R                                                         P   1  2073  1                  162
1143 11 01         MCW   @2@,OPCOD                                           P   7  2074  M Q90 O69          162
1144 11 02         C     20,@PRINT@                                          P   7  2081  C 020 Q95          162
1145 11 03         BE    SELMC                                               P   5  2088  B J19 S            162
1146 11 04         C     20,@PUNCH@                                          P   7  2093  C 020 R00          163
1147 11 05         BU    ERROR                                               P   5  2100  B N06 /            163
1148 11 06   *
1149 11 07   * PUNCH OPTION
1150 11 08   *
1151 11 09         A     &4,OPCOD                                            P   7  2105  A R01 O69          163
1152 11 10         MN    &4,OPSAV#1                                          P   7  2112  D R01 R02          163
1153 11 11   *
1154 11 12   * SEARCH FOR MACRO
1155 11 13   *
1156 11 14   SELMC  C     8,NAME#3                                            P   7  2119  C 008 R05          163
1157 11 15         BE    TSTLC                                               P   5  2126  B K96 S            163
1158 11 16         MCW   20,218                                              P   7  2131  M 020 218          164
1159 11 17         MCW   11,212                                              P   7  2138  M 011 212          164
1160 11 18         BL    RDTP2                                               P   5  2145  B J85 T            164
1161 11 19         RWD   SYSTP                                              P   5  2150  U %U1 R            164
1162 11 20         LCA   ENDOT,181                                           P   7  2155  L ?44 181          164
1163 11 21         RT    SYSTP,101                                           P   8  2162  M %U1 101 R        164
```

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

1164 11 22          CS    180                                          P   4  2170  / 180             165
1165 11 23          SW    106,116                                      P   7  2174  , 106 116         165
1166 11 24          SW    121                                          P   4  2181  , 121             165
1167 11 25   RDTP2   RT    SYSTP,101                                    P   8  2185  M %U1 101 R       165
1168 11 26          B     NOISE                                        P   4  2193  B P67             165
1169 11 27          BER   RDERR                                        P   5  2197  B Q06 L           165
1170 11 28          C     111,@999999@                                 P   7  2202  C 111 R11         165
1171 11 29          BE    UNKN                                         P   5  2209  B L05 S           166
1172 11 30          C     120,@HEADR@                                  P   7  2214  C 120 R16         166
1173 11 31          BU    RDTP2                                        P   5  2221  B J85 /           166
1174 11 32          C     8,108                                        P   7  2226  C 008 108         166
1175 11 33          BU    RDTP2                                        P   5  2233  B J85 /           166
1176 11 34   *
1177 11 35   * DESIRED MACRO FOUND
1178 11 36   *
1179 11 37          MCW   8,NAME                                       P   7  2238  M 008 R05         166
1180 11 38          CC    K                                            P   2  2245  F K              166
1181 11 39          W                                                  P   1  2247  2                167
1182 11 40          S     SEQNO                                        P   4  2248  S R48            167
1183 11 41          B     INSER                                        P   4  2252  B N17            167
1184 11 42          CC    K                                            P   2  2256  F K              167
1185 11 43   PTAGN  B     PRINT                                        P   4  2258  B N81            167
1186 11 44          RT    SYSTP,101                                    P   8  2262  M %U1 101 R       167
1187 11 45          B     NOISE                                        P   4  2270  B P67            167
1188 11 46          BER   RDERR                                        P   5  2274  B Q06 L           168
1189 11 47          C     120,@HEADR@                                  P   7  2279  C 120 R21         168
1190 11 48          BU    PTAGN                                        P   5  2286  B K58 /           168
1191 11 49          BSP   SYSTP                                        P   5  2291  U %U1 B           168
1192 11 50   *
1193 11 51   * TEST END OF RUN
1194 11 52   *
1195 11 53   TSTLC  BLC   EOJOB                                        P   5  2296  B M54 A           168
1196 11 54          B     READ                                         P   4  2301  B !67             168
1197 11 55   *
1198 11 56   * MACRO NOT ON TAPE
1199 11 57   *
1200 11 58   UNKN   MCW   @UNKNOWN@,299                                P   7  2305  M R28 299         168
1201 11 59          W                                                  P   1  2312  2                169
1202 11 60          CS    299                                          P   4  2313  / 299            169
1203 11 61          MCW   @999@,NAME                                   P   7  2317  M R31 R05         169
1204 11 62          B     TSTLC                                        P   4  2324  B K96            169
1205 11 63   *
1206 11 64   * PRINT AND/OR PUNCH ALL OR PRINT HEADERS ONLY
1207 11 65   *
1208 11 66   DOALL  BSS   SETUP,D                                      P   5  2328  B L60 D           169
1209 11 67          CW    HDRSW#1                                      P   4  2333  ) R32             169
1210 11 68          BSS   *&5,G                                        P   5  2337  B L46 G           169
1211 11 69          B     SETUP                                        P   4  2342  B L60             170
1212 11 70   *
1213 11 71   * PUNCH ALL
```



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

1214 11 72   *
1215 11 73          A     &4,OPCOD                                     P   7  2346  A R01 O69         170
1216 11 74          MN    &4,OPSAV                                     P   7  2353  D R01 R02         170
1217 11 75   SETUP  B     HEAD1                                        P   4  2360  B P19            170
1218 11 76          CW    HDSW1#1                                      P   4  2364  ) R33            170
1219 11 77          B     PRTHD                                        P   4  2368  B N59            170
1220 11 78   RDTP   RT    SYSTP,101                                    P   8  2372  M %U1 101 R       170
1221 11 79          B     NOISE                                        P   4  2380  B P67            171
1222 11 80          BER   RDERR                                        P   5  2384  B Q06 L           171
1223 11 81          C     111,@999999@                                 P   7  2389  C 111 R39         171
1224 11 82          BE    EOJOB                                        P   5  2396  B M54 S           171
1225 11 83          C     120,@HEADR@                                  P   7  2401  C 120 R44         171
1226 11 84          BU    DOPNT                                        P   5  2408  B M35 /           171
1227 11 85          B     INSER                                        P   4  2413  B N17            171
1228 11 86          CC    K                                            P   2  2417  F K              172
1229 11 87          SBR   PRTXT&3,*&6                                  P   7  2419  H O83 M31         172
1230 11 88          BCV   NEWPG                                        P   5  2426  B O97 @           172
1231 11 89          S     SEQNO#4                                      P   4  2431  S R48            172
1232 11 90   DOPNT  B     PRINT                                        P   4  2435  B N81            172
1233 11 91          SW    106,116                                      P   7  2439  , 106 116         172
1234 11 92          SW    121                                          P   4  2446  , 121            172
1235 11 93          B     RDTP                                         P   4  2450  B L72             173
1236 11 94   *
1237 11 95   * END OF JOB
1238 11 96   *
1239 11 97   EOJOB  CS    332                                          P   4  2454  / 332             173
1240 11 98          CS                                                 P   1  2458  /                 173
1241 11 99          CC    K                                            P   2  2459  F K               173
1242 12 00          MCW   @END OF LIBRARY@,214                         P   7  2461  M R62 214         173
1243 12 01          W                                                  P   1  2468  2                 173
1244 12 02          CC    1                                            P   2  2469  F 1               173
1245 12 03          CS    180                                          P   4  2471  / 180             174
1246 12 04          BCE   CLRPH,OPSAV,4                                P   8  2475  B M99 R02 4       174
1247 12 05   RWD    RWD   SYSTP                                        P   5  2483  U %U1 R           174
1248 12 06   HALT   H     0,155                                        P   7  2488  . 000 155         174
1249 12 07          B     HALT                                         P   4  2495  B M88            174
1250 12 08   CLRPH  P                                                  P   1  2499  4                174
1251 12 09          SS    8                                            P   2  2500  K 8              174
1252 12 10          B     RWD                                          P   4  2502  B M83            175
1253 12 11   *
1254 12 12   * INCORRECT INPUT CARD
1255 12 13   *
1256 12 14   ERROR  H     0,144                                        P   7  2506  . 000 144         175
1257 12 15          B     TSTLC                                        P   4  2513  B K96            175
1258 12 16   INSER  SBR   INSXT&3                                      P   4  2517  H N58            175
1259 12 17          MCW   @     @,105                                  P   7  2521  M R67 105         175
1260 12 18          MCW   @INSER@,120                                  P   7  2528  M R72 120         175
1261 12 19          BCE   *&5,OPSAV,4                                  P   8  2535  B N47 R02 4       176
1262 12 20          B     *&2                                          P   4  2543  B N48            176
1263 12 21          P                                                  P   1  2547  4                176
```

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

1264 12 22          MCW   @HEADR@,120                                P  7  2548  M R77 120          176
1265 12 23   INSXT  B     0                                          P  4  2555  B 000              176
1266 12 24   *
1267 12 25   * PRINT HEADING
1268 12 26   *
1269 12 27   PRTHD  SBR   HDXT&3                                     P  4  2559  H N80              176
1270 12 28          MCW   @SEQ  LABEL  OP    OPERANDS@,227          P  7  2563  M ?03 227          176
1271 12 29          W                                                P  1  2570  2                  177
1272 12 30          CC    K                                          P  2  2571  F K                177
1273 12 31          CS    228                                        P  4  2573  / 228              177
1274 12 32   HDXT   B     0                                          P  4  2577  B 000              177
1275 12 33   *
1276 12 34   * PRINT STATEMENT
1277 12 35   *
1278 12 36   PRINT  SBR   PRTXT&3                                    P  4  2581  H O83              177
1279 12 37          C     120,@HEADR@                                P  7  2585  C 120 ?08          177
1280 12 38          BE    DOHDR                                      P  5  2592  B O05 S            177
1281 12 39          BW    CLR,HDRSW                                  P  8  2597  V O70 R32 1        178
1282 12 40   DOHDR  CS    332                                        P  4  2605  / 332              178
1283 12 41          CS                                               P  1  2609  /                  178
1284 12 42          BCE   COMNT,106,*                                P  8  2610  B O84 106 *        178
1285 12 43          MCW   172,271                                    P  7  2618  M 172 271          178
1286 12 44          MCW   120,218                                    P  7  2625  M 120 218          178
1287 12 45          MCW   111,212                                    P  7  2632  M 111 212          179
1288 12 46   DOSEQ  MN    SEQNO,204                                  P  7  2639  D R48 204          179
1289 12 47          MCS                                              P  1  2646  Z                  179
1290 12 48          MN    SEQNO,104                                  P  7  2647  D R48 104          179
1291 12 49          MCW                                              P  1  2654  M                  179
1292 12 50          A     &1,SEQNO                                   P  7  2655  A ?09 R48          179
1293 12 51          MCW   @ @,105                                    P  7  2662  M ?10 105          179
1294 12 52   OPCOD  W                                                P  1  2669  2                  180
1295 12 53   CLR    CS    332                                        P  4  2670  / 332              180
1296 12 54          CS                                               P  1  2674  /                  180
1297 12 55          BCV   NEWPG                                      P  5  2675  B O97 @            180
1298 12 56   PRTXT  B     0                                          P  4  2680  B 000              180
1299 12 57   COMNT  MCW   172,273                                    P  7  2684  M 172 273          180
1300 12 58          MCW                                              P  1  2691  M                  180
1301 12 59          MCW                                              P  1  2692  M                  181
1302 12 60          B     DOSEQ                                      P  4  2693  B O39              181
1303 12 61   *
1304 12 62   * START NEW PAGE
1305 12 63   *
1306 12 64   NEWPG  CC    1                                          P  2  2697  F 1                181
1307 12 65          BW    *&5,HDSW1                                  P  8  2699  V P11 R33 1        181
1308 12 66          B     HEAD1                                      P  4  2707  B P19              181
1309 12 67          B     PRTHD                                      P  4  2711  B N59              181
1310 12 68          B     PRTXT                                      P  4  2715  B O80              181
1311 12 69   *
1312 12 70   * PRINT MAIN HEADING
1313 12 71   *
```



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

1314 12 72   HEAD1  SBR   HD2XT&3                                   P  4  2719  H P66              182
1315 12 73          CS    332                                        P  4  2723  / 332              182
1316 12 74          CS                                               P  1  2727  /                  182
1317 12 75          MCW   @1401 AUTOCODER - LIBRARY@,243            P  7  2728  M ?34 243          182
1318 12 76          MCW   @PAGE@,275                                 P  7  2735  M ?38 275          182
1319 12 77          A     &1,PGNO#3                                  P  7  2742  A ?09 ?41          182
1320 12 78          MCS   PGNO,279                                   P  7  2749  Z ?41 279          182
1321 12 79          W                                                P  1  2756  2                  183
1322 12 80          CC    L                                          P  2  2757  F L                183
1323 12 81          CS    299                                        P  4  2759  / 299              183
1324 12 82   HD2XT  B     0                                          P  4  2763  B 000              183
1325 12 83   *
1326 12 84   * TEST FOR NOISE RECORDS
1327 12 85   *
1328 12 86   NOISE  SBR   NOSXT&3                                    P  4  2767  H Q05              183
1329 12 87          SBR   XR1                                        P  4  2771  H 089              183
1330 12 88          MZ    &9,XR1                                     P  7  2775  Y ?42 089          183
1331 12 89          BCE   4000-12&X1,113,}                          P  8  2782  B IY8 113 } GMARK  184
1332 12 90          CHAIN 12                                         P                    MACRO
1333                BCE                                              P  1  2790  B           GEN    184
1334                BCE                                              P  1  2791  B           GEN    184
1335                BCE                                              P  1  2792  B           GEN    184
1336                BCE                                              P  1  2793  B           GEN    184
1337                BCE                                              P  1  2794  B           GEN    184
1338                BCE                                              P  1  2795  B           GEN    184
1339                BCE                                              P  1  2796  B           GEN    185
1340                BCE                                              P  1  2797  B           GEN    185
1341                BCE                                              P  1  2798  B           GEN    185
1342                BCE                                              P  1  2799  B           GEN    185
1343                BCE                                              P  1  2800  B           GEN    185
1344                BCE                                              P  1  2801  B           GEN    185
1345 12 91   NOSXT  B     0                                          P  4  2802  B 000              185
1346 12 92   *
1347 12 93   * READ REDUNDANCY ROUTINE
1348 12 94   *
1349 12 95   RDERR  SBR   RDXT&3                                     P  4  2806  H Q38              186
1350 12 96   BSP    BSP   SYSTP                                      P  5  2810  U %U1 B            186
1351 12 97          MCW   &9,RDCT#1                                  P  7  2815  M ?42 ?43          186
1352 12 98   RDTRY  RT    SYSTP,101                                  P  8  2822  M %U1 101 R        186
1353 12 99          BER   *&5                                        P  5  2830  B Q39 L            186
1354 13 00   RDXT   B     0                                          P  4  2835  B 000              186
1355 13 01          BSP   SYSTP                                      P  5  2839  U %U1 B            186
1356 13 02          S     &1,RDCT                                    P  7  2844  S ?09 ?43          187
1357 13 03          BWZ   RDTRY,RDCT,B                              P  8  2851  V Q22 ?43 B        187
1358 13 04          H     0,191                                      P  7  2859  . 000 191          187
1359 13 05          RT    SYSTP,101                                  P  8  2866  M %U1 101 R        187
1360 13 06          BSS   BSP,E                                      P  5  2874  B Q10 E            187
1361 13 07          H     0,111                                      P  7  2879  . 000 111          188
1362 13 08          B     RDXT                                       P  4  2886  B Q35              188
1363 13 09          LTORG *                                          P           2890
```

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

                    DCW   @2@                                          P  1  2890              LIT    188
                    DCW   @PRINT@                                      P  5  2895              LIT    188
                    DCW   @PUNCH@                                      P  5  2900              LIT    188
                    DCW   &4                                           P  1  2901              LIT    188
             OPSAVP DCW   #01                                          P  1  2902              AREA   188
             NAMEP  DCW   #03                                          P  3  2905              AREA   189
                    DCW   @999999@                                     P  6  2911              LIT    189
                    DCW   @HEADR@                                      P  5  2916              LIT    189
                    DCW   @HEADR@                                      P  5  2921              LIT    189
                    DCW   @UNKNOWN@                                    P  7  2928              LIT    189
                    DCW   @999@                                        P  3  2931              LIT    189
             HDRSWP DCW   #01                                          P  1  2932              AREA   189
             HDSW1P DCW   #01                                          P  1  2933              AREA   190
                    DCW   @9999999@                                    P  6  2939              LIT    190
                    DCW   @HEADR@                                      P  5  2944              LIT    190
             SEQNOP DCW   #04                                          P  4  2948              AREA   190
                    DCW   @END OF LIBRARY@                             P 14  2962              LIT    190
                    DCW   @     @                                      P  5  2967              LIT    190
                    DCW   @INSER@                                      P  5  2972              LIT    191
                    DCW   @HEADR@                                      P  5  2977              LIT    191
                    DCW   @SEQ  LABEL  OP    OPERANDS@                P 26  3003              LIT    191
                    DCW   @HEADR@                                      P  5  3008              LIT    192
                    DCW   &1                                           P  1  3009              LIT    192
                    DCW   @ @                                          P  1  3010              LIT    192
                    DCW   @1401 AUTOCODER - LIBRARY@                   P 24  3034              LIT    192
                    DCW   @PAGE@                                       P  4  3038              LIT    192
             PGNOP  DCW   #03                                          P  3  3041              AREA   192
                    DCW   &9                                           P  1  3042              LIT    192
             RDCTP  DCW   #01                                          P  1  3043              AREA   193
1364 13 10   ENDOT  DCW   @}@                                          P  1  3044              GMARK  193
1365 13 11          EX    0                                           P           B 000               194
1366 13 12          END   0                                           P           / 000 080
```


SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
ABIT	107	ADDU	1950	AGAINR	2102	ALLU	1742	BACKU	1722	BADSTU	2859	BDEOFU	750
BEGINU	1500	BLANKU	3027	BSP	995	BSP1U	827	BSP2U	863	BSP3U	957	BSPB	698
BSPCU	2110	BSPP	2810	BUMPU	2753	BYCTB	807	BYCTU	1072	BYP1U	2290	BYPSSU	411
CARD	0	CDXTU	2405	CKDELU	2368	CKREPU	2388	CKSEQ	726	CLEAR	702	CLEARB	342
CLEARU	1021	CLNUPU	2240	CLRB	497	CLRP	2670	CLRPHP	2499	CLRU	1032	CLRWMU	2004
CLRXTU	1052	CNVRT	478	COMNTP	2684	COMNTU	2732	COMP1	429	COMP2	607	COMP2U	2078
COMPU	2031	COPYU	525	CPYNDU	692	CRDER	917	CTLXTU	2633	DELSWU	3079	DOALLP	2328
DOCOR	538	DOCTLU	2594	DOHDRP	2605	DOOUTU	2307	DOPNTP	2435	DOPSAB	1900	DOSEQ	941
DOSEQP	2639	END99U	2910	ENDOTP	3044	ENDRTR	2212	ENDSQ	962	ENDSWU	3098	ENDUPU	1139
EOFSWU	1080	EOFU	601	EOJOB	877	EOJOBP	2454	ERASEU	637	ERRORP	2506	EXITU	1777
FINALU	2260	FLOAT	406	FOUNDU	1730	GETR	2154	GETUPU	448	GMRK1B	835	GOTITU	2070
HALT	906	HALT1B	407	HALT1U	669	HALT2	930	HALT2U	2790	HALTP	2488	HD2XTP	2763
HDRSWP	2932	HDSW1P	2933	HDXTP	2577	HDXTU	2590	HEAD1P	2719	HEADRU	1656	HEADU	2532
HEDSWU	3091	HOLD5	1099	IMAGEU	101	INPUTU	1500	INSERP	2517	INSERU	1806	INSRU	2173
INSWU	3073	INSXTP	2555	IS2OPU	2000	ISMORU	727	ISUNKU	2821	LDUPDU	498	LIBRNB	521
LIBSWU	1079	LISTR	2126	LOADDB	11	LOOP1B	362	LOOP1U	1628	LOOP2B	441	LOOP2U	1757
LOOP3U	1810	LOOP4U	2835	LOOP6U	2941	LOPSAB	476	LSTCDU	2409	LSTSWU	3085	LTAPSW	2725
MACRO	792	MOREU	1648	NAMEP	2905	NAMEU	3039	NEWPGP	2697	NEWPGU	2658	NEWXTU	2668
NOBIT	106	NOIS2B	652	NOIS2U	774	NOISEB	637	NOISEP	2767	NOISEU	759	NOSXTB	672
NOSXTP	2802	NOSXTU	794	NTFNDU	2884	NXTBK	362	NXTOPU	1942	ONOPU	2220	OPCODP	2669
OPSAVP	2902	OPSWU	3048	OUTAPU	%U6	OUTPTB	558	OUTU	2008	OUTXTU	2320	PARTLU	1846
PASSAB	1650	PASTU	1689	PGNOP	3041	PGNOU	3137	PRINT	200	PRINTP	2581	PRINTU	2672
PRTHDP	2559	PRTXTP	2680	PTAGNP	2258	PTCTLU	2637	PTCXTU	2654	PTXTU	2771	QINSRU	2146
QUITU	2775	RDCDU	2340	RDCTB	812	RDCTP	3043	RDCTR	2207	RDCTU	1130	RDERRB	676
RDERRP	2806	RDERRR	2046	RDERRU	798	RDTP2P	2185	RDTPP	2372	RDTPU	2417	RDTRYB	710
RDTRYP	2822	RDTRYR	2058	RDTRYU	839	RDXTB	723	RDXTP	2835	RDXTU	852	READP	2067
READU	2324	REBEGU	1560	REOUTU	593	REPETU	2236	RETRY	1020	RTXTU	2491	RWDP	2483
SELMCP	2119	SEQER	760	SEQNCU	2745	SEQNO	1087	SEQNOP	2948	SEQNOU	3167	SEQSWU	3064
SEQXT	756	SERCHU	1584	SETUPP	2360	SETWM	596	SKPCTU	1082	SOMEU	1881	START	333
STARTR	2009	SUB1	527	SUB2	471	SUBCT	1037	SUBCTU	999	SWICHU	556	SYSTP	%U1
SYSTPB	%U1	SYSTPP	%U1	SYSTPR	%U1	SYSTPU	%U1	TEST1U	1885	THRUU	2126	TSTLCP	2296
TSTSQU	2716	TSTSSB	418	TWOOPU	1916	UNKNP	2305	UNKWNU	2801	UPDSWU	1126	WK1U	3053
WK2U	3058	WORK5	1119	WT2XTU	2528	WTAP1	675	WTAP1U	580	WTAP2	830	WTAP2U	2495
WTCT	1255	WTCTU	1132	WTERR	973	WTERRU	928	WTTM	868	WTTRYU	982	WTXT	1033
WTXTU	995	XR1	89	XR1B	89	XR1P	89	XR1U	89	XR2	94	XR2U	94
XR3	99	XR3U	99	XXXX	0	ZONE	109						

***** ** 3 Errors ERROR