```
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-UT-026 TAPE-TO-PRINTER PROGRAM                    3026              PAGE    1

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

 101  1 010         JOB   1401-UT-026 TAPE-TO-PRINTER PROGRAM
 102  1 020         CTL   6611               VERS 3 - 12/1/61
 103  1 030         ORG   333                                                      0333
 104  1 040  * TAPE TO PRINTER 1401 UTILITY - MAIN LINE
 105  1 050  FLSTST B     NXTPGE             BR IF NO FILESEL                4  0333  B 425               4    425
 106  1 060         A     KTWO,FLSELA                                        7  0337  A W77 S91           4   1677   1291
 107  1 070         MCW   FLSELA,FILESL+6    SET ADDRESS                     7  0344  M S91 371           4   1291    371
 108  1 080         MCW   FLSELA,FILESL+14   FOR NEXT                        7  0351  M S91 379           4   1291    379
 109  1 090         MCW   FLSELA,FILESL+18   FILE SELECTED                   7  0358  M S91 383           4   1291    383
 110  1 100  FILESL BCE   FINAL,0-0,                                         8  0365  B 772 000           5    772    000
 111  1 110         S     ONE,0-0                                            7  0373  S W76 000           5   1676    000
 112  1 120         C     0-0,NOFLSP         COMP FOR NXTFILE                7  0380  C 000 S80           5    000   1280
 113  1 130         BE    NXTPGE             NXTPAGE IF FOUND                5  0387  B 425 S             5    425
 114  1 140         BH    FSQERR             FILE NOS OUT SEQ                5  0392  B 783 U             5    783
 115  1 150  SEARCH RTW   3,3995                                            8  0397  L %U3 I95 R         6    003   3995
 116  1 160         BEF   *&5                TEST EOF                        5  0405  B 414 K             6    414
 117  1 170         B     SEARCH             NOT YET                         4  0410  B 397               6    397
 118  1 180         A     ONE,NOFLSP         STEP NO OF FILE                 7  0414  A W76 S80           6   1676   1280
 119  1 190         B     FILESL+15          RETRY COMPARE                   4  0421  B 380               6    380
 120  1 200  NXTPGE B     *+3                FIRST TIME BR                   4  0425  B 431               6    431
 121  1 210         CC    1                  SKIP TO NEW PAGE                2  0429  F 1                 6
 122  1 220         MCW   KENN,NXTPGE        CHANGE BR TO NO-OP              7  0431  M W93 425           7   1693    425
 123  1 230         CS    332                                                4  0438  / 332               7    332
 124  1 240         CS                                                       1  0442  /                   7
 125  1 250  PAGEOP NOP   HDPRNT             PAGE NO BYPASS                  4  0443  N 469               7    469
 126  1 260         MCS   PAGENO,299         PRINT                           7  0447  Z T00 299           7   1300    299
 127  1 270         MCW   PAGE,295           PAGE NO                         7  0454  M S96 295           7   1296    295
 128  1 280         W                                                        1  0461  2                   7
 129  1 290         A     ONE,PAGENO         STEP PAGE NO                    7  0462  A W76 T00           8   1676   1300
 130  1 300  HDPRNT LCA   ADDLN1,CARRCT+5                                    7  0469  L V73 539           8   1573    539
 131  1 310         LCA   KNOLNS,LNSCTR      SET NO OF LINES                 7  0476  L T02 T04           8   1302   1304
 132  1 320  PRINTH LCA   CARRCT+5,HEADLN+3  SET UP LINE ADDR                7  0483  L 539 522           8    539    522
 133  1 330         A     ONE,HEADLN+3                                       7  0490  A W76 522           8   1676    522
 134  1 340         S     ONE,LNSCTR                                         7  0497  S W76 T04           9   1676   1304
 135  1 350         BWZ   TPREAD,LNSCTR,K    BR IF ALL LINES                 8  0504  V 559 T04 K         9    559   1304
 136  1 360         CW    HEADLN+1,CARRCT+3                                  7  0512  ) 520 537           9    520    537
 137  1 370  HEADLN MCW   0-0,CARRCT+1       HEAD LINE FRM CT                7  0519  M 000 535           9    000    535
 138  1 380         BCE   CARRCT+2,CARRCT+1,                                8  0526  B 536 535           9    536    535
 139  1 390  CARRCT CC    0                                                  2  0534  F 0                 9
 140  1 400         MCW   0-0,332            MOVE HEAD LINE                  7  0536  M 000 332          10    000    332
 141  1 410         W                                                        1  0543  2                  10
 142  1 420         SW    CARRCT+3                                           4  0544  , 537              10    537
 143  1 430         A     K133,CARRCT+5                                      7  0548  A W91 539          10   1691    539
 144  1 440         B     PRINTH             GET NEXT HEAD LN                4  0555  B 483              10    483
 145  1 450  TPREAD CS    332                                                4  0559  / 332              10    332
 146  1 460         CS                                                       1  0563  /                  10
 147  1 470         CCB   *+1,L              TRIPLE SPACE                    5  0564  F 569 L            11    569
 148  1 480  RECRD  LCA   3999,3997                                          7  0569  L I99 I97          11   3999   3997
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                          1401-UT-026 TAPE-TO-PRINTER PROGRAM                    3026              PAGE    2

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

 149  1 490         RTW   3,RIAREA           READ TAPE BLOCK                 8  0576  L %U3 N01 R         11    003   2501
 150  1 500         LCA   RMBLNK                                           4  0584  L X06               11   1706
 151  1 510         BER   REDUND             CHECK REDUNDANCY                5  0588  B /46 L             11   1146
 152  1 520  TSTTM  BEF   NXTFLE             TEST EOF                        5  0593  B 614 K             11    614
 153  1 530         MCW   BLANK,BYPASS                                      7  0598  M W92 W61           12   1692   1661
 154  1 540         BSS   RECRD,C            SENSE SW C-BYP                  5  0605  B 569 C             12    569
 155  1 550         B     START1             TO OBJECT PGRM                  4  0610  B X11               12   1711
 156  1 560  NXTFLE A     ONE,NOFLSP         ADD 1 TO FILES                  7  0614  A W76 S80           12   1676   1280
 157  1 570         CC     1                                                 2  0621  F 1                 12
 158  1 580         CS     332                                               4  0623  / 332               12    332
 159  1 590         CS                                                       1  0627  /                   12
 160  1 600         MCW   RECLEG,299         PRINT NUMBER OF                 7  0628  M S76 299           13   1276    299
 161  1 610         MCS   KNORCS,291         RECORDS IN FILE                 7  0635  Z S69 291           13   1269    291
 162  1 620         W                                                        1  0642  2                   13
 163  1 630         MCW   332,SEQHLD         BLANK SEQUENCE FIELD            7  0643  M 332 W38           13    332   1638
 164  1 640         MCW   332,KNORCS         BLANK NO RECS                   7  0650  M 332 S69           13    332   1269
 165  1 650         ZA    K001,PAGENO        RESET PAGE NO                   7  0657  ? X04 T00           13   1704   1300
 166  1 660         C     NOFLSP,KNOFLS      COMP FILES PROC                 7  0664  C S80 S78           14   1280   1278
 167  1 670         BE    FINAL              OUT IF EQUAL                    5  0671  B 772 S             14    772
 168  1 680  FILOPT B     HALTOP             END OF FILE HALT                4  0676  B 760               14    760
 169  1 690         BSS   HALTOP,B           CONT CD OR SS B                 5  0680  B 760 B             14    760
 170  1 700  TAPELD LCA   3999,RIAREA+80                                     7  0685  L I99 N81           14   3999   2581
 171  1 710         RTW   3,RIAREA           READ TO CHECK                   8  0692  L %U3 N01 R         14    003   2501
 172  1 720         LCA   FILE4              SECOND EOF MARK                 4  0700  L S88               15   1288
 173  1 730         BEF   FINAL                                              5  0704  B 772 K             15    772
 174  1 740         LCA   80,180                                            7  0709  L 080 180           15    080    180
 175  1 750         BCE   CLTRWM,RIAREA+80,                                 8  0716  B 764 N81           15    764   2581
 176  1 760  COMTLR C     ONE,ONE                                            7  0724  C W76 W76           15   1676   1676
 177  1 770         LCA   RIAREA+80,181                                     7  0731  L N81 181           15   2581    181
 178  1 780         C                        COMP FOR TRAILER                1  0738  C                   15
 179  1 790         BE    FINAL                                              5  0739  B 772 S             16    772
 180  1 800         BSP   3                                                  5  0744  U %U3 B             16    003
 181  1 810  TOFILT LCA   3999,3997                                          7  0749  L I99 I97           16   3999   3997
 182  1 820         B     FLSTST                                             4  0756  B 333               16    333
 183  1 830  HALTOP H     TAPELD                                             4  0760  . 685               16    685
 184  1 840  CLTRWM CW    RIAREA+80                                          4  0764  ) N81               16   2581
 185  1 850         B     COMTLR                                             4  0768  B 724               16    724
 186  1 860  FINAL  RWD   3                    REWIND TAPE                     5  0772  U %U3 R             17    003
 187  1 870         CC    1                  RESTORE FORM                    2  0777  F 1                 17
 188  1 880         H     *-3                HALT-END OF JOB                 4  0779  . 779               17    779
 189  1 890  FSQERR H     FLSTST             FILE NOS OUT SEQ                4  0783  . 333               17    333
 190  1 900  SUBRTN MCW   BLANK,EXITCT       FROM OBJECT PRGM                7  0787  M W92 W62           17   1692   1662
 191  1 910         B     SEQNCE             BYP IF NO EXCPNS                4  0794  B 879               17    879
 192  1 920  TESTEX LCA   TAPADD,TESTC1+3    SET UP ADDRESSES                7  0798  L W04 836           17   1604    836
 193  1 930         LCA   TAPADD,TESTC2+3    OF EXCEPTION                    7  0805  L W04 859           18   1604    859
 194  1 940         A     C1ADDR,TESTC1+3    CHARACTER                       7  0812  A W45 836           18   1645    836
 195  1 950         A     C2ADDR,TESTC2+3    LOCATIONS                       7  0819  A W48 859           18   1648    859
 196  1 960         CW    TESTC1+1,TESTC2+1                                  7  0826  ) 834 857           18    834    857
 197  1 970  TESTC1 MCW   0-0,TSTCH1                                         7  0833  M 000 W51           18    000   1651
 198  1 980         C     TSTCH1,CHAR1       COMP FIRST CHAR                 7  0840  C W51 W49           19   1651   1649
 199  1 990         BU    TESTC2             BRANCH ON PROPER                5  0847  B 856 /             19    856
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SEQ PG LIN  LABEL   OP    OPERANDS              COMMENTS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

200  2 000          B     EXCFND                CONDITION                     4  0852  B 875               19    875
201  2 010  TESTC2  MCW   0-0,TSTCH2                                          7  0856  M 000 W52           19    000   1652
202  2 020          C     TSTCH2,CHAR2          COMP SECOND CHAR              7  0863  C W52 W50           19   1652   1650
203  2 030          BU    SEQNCE                BR ON PROPER CND              5  0870  B 879 /             19    879
204  2 040  EXCFND  B     EXCPTN                BR-PROCESS EXCPN              4  0875  B X61               19   1761
205  2 050  SEQNCE  B     OUTSEQ-4              BYP IF NO SEQCHK              4  0879  B 927               20    927
206  2 060          LCA   SEQADD,CHKSEQ+3       SET UP SEQUENCE               7  0883  L W41 911           20   1641    911
207  2 070          A     TAPADD,CHKSEQ+3       CHECK ADDRESS                 7  0890  A W04 911           20   1604    911
208  2 080          MCW   CHKSEQ+3,CHKSEQ+10                                  7  0897  M 911 918           20    911    918
209  2 090          CW    CHKSEQ+1                                            4  0904  ) 909               20    909
210  2 100  CHKSEQ  C     0-0,0-0               CHECK SEQUENCE                7  0908  C 000 000           20    000    000
211  2 110          MCW   0-0,0-0                                            7  0915  M 000 000           21    000    000
212  2 120          BH    OUTSEQ                BR-OUT OF SEQNCE              5  0922  B 931 U             21    931
213  2 130          B     SETUP2                TO PROCESS RECRD              4  0927  B X36               21   1736
214  2 140  OUTSEQ  H     *-7                   RECRD OUT OF SEQ              4  0931  . 927               21    927
215  2 150  SKPSUB  B     LINKGE                BYP-NOT FIRST CR              4  0935  B |58               21   1058
216  2 160          LCA   TAPADD,SKCNTL+3       SET UP ADDRESS                7  0939  L W04 967           21   1604    967
217  2 170          A     ONE,SKCNTL+3          OF FIRST CHAR                 7  0946  A W76 967           21   1676    967
218  2 180          MCW   SKCNTL+3,SKCNTL+13                                  7  0953  M 967 977           22    967    977
219  2 190          CW    SKCNTL+1                                            4  0960  ) 965               22    965
220  2 200  SKCNTL  MCW   0-0,FCCHAR           PICK UP CHAR                  7  0964  M 000 W06           22    000   1606
221  2 210          MCW   BLANK,0-0            BLANK CHAR                    7  0971  M W92 000           22   1692    000
222  2 220          C     FCCHAR,AMPRSD         CHECK FOR SPACE               7  0978  C W06 X01           22   1606   1701
223  2 230          BU    SKIP                  SUPPRESS                      5  0985  B |18 /             22   1018
224  2 240  SUPPRS  MCW   ONE,EXITCT           SPACE SUPPRESS                7  0990  M W76 W62           23   1676   1662
225  2 250          B     NOPNCH                OPTION TO BYPASS              4  0997  B Z10               23   1910
226  2 260          CS    332                                                 4  1001  / 332               23    332
227  2 270          CS                                                        1  1005  /                   23
228  2 280          MCW   ASTRSK,203            OPTION TO PRINT               7  1006  M W96 203           23   1696    203
229  2 290          W                           ASTERISKS                     1  1013  2                   23
230  2 300          CS    203                                                 4  1014  / 203               23    203
231  2 310  SKIP    BCE   LINKGE,FCCHAR,        SINGLE SPACE                  8  1018  B |58 W06           24   1058   1606
232  2 320          BCE   FORM,FCCHAR,0         DOUBLE SPACE                  8  1026  B |62 W06 0         24   1062   1606
233  2 330          BCE   FORM+5,FCCHAR,-       TRIPLE SPACE                  8  1034  B |67 W06 -         24   1067   1606
234  2 340          BWZ   FORM+10,FCCHAR,2      SKIP TO CHANNEL               8  1042  V |72 W06 2         24   1072   1606
235  2 350          BWZ   FORM+10,FCCHAR,K      1-9                           8  1050  V |72 W06 K         25   1072   1606
236  2 360  LINKGE  B     PNTSTP                LINK TO PRINT                 4  1058  B Z21               25   1921
237  2 370  FORM    CCB   LINKGE,J                                           5  1062  F |58 J             25   1058
238  2 380          CCB   LINKGE,K                                           5  1067  F |58 K             25   1058
239  2 390          MCW   ADLINK,TPREAD+8                                   7  1072  M W68 567           25   1668    567
240  2 400          MN    FCCHAR,*+2                                        7  1079  D W06 |87           25   1606   1087
241  2 410          CC    0                                                 2  1086  F 0                 25
242  2 420          BCE   PAGEOP-5,*-8,1       PAGE EJECT-HDNGS              8  1088  B 438 |87 1         26    438   1087
243  2 430          B     LINKGE                                            4  1096  B |58               26   1058
244  2 440  TESTOF  MCW   OVFAD3,TPREAD+8                                   7  1100  M W65 567           26   1665    567
245  2 450          BCE   RECRD,BYPASS,                                     8  1107  B 569 W61           26    569   1661
246  2 460          BCV   NXTPGE                OVERFLOW-EJECT                5  1115  B 425 @             26    425
247  2 470          MCW   FCBLKC,*+2                                        7  1120  M W08 /28           26   1608   1128
248  2 480          CC    0                     BLOCK FORM CONTL              2  1127  F 0                 27
249  2 490          BCE   PAGEOP-5,*-8,1                                    8  1129  B 438 /28 1         27    438   1128
250  2 500          BCV   NXTPGE                OVERFLOW-EJECT                5  1137  B 425 @             27    425
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SEQ PG LIN  LABEL   OP    OPERANDS              COMMENTS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

251  2 510          B     RECRD                 GET NEXT BLOCK                4  1142  B 569               27    569
252  2 520  REDUND  MCW   TSTSSF+5,OPTNB-4      REDUNDANCY                    7  1146  M S13 S43           27   1213   1243
253  2 530          MCW   TRYCTR-2,TRYCTR       SET CTR FOR TRYS              7  1153  M S59 S61           27   1259   1261
254  2 540  RETRY   S     ONE,TRYCTR                                          7  1160  S W76 S61           28   1676   1261
255  2 550          BWZ   TSTSSF,TRYCTR,K       OUT IF TEN TRYS               8  1167  V S08 S61 K         28   1208   1261
256  2 560          BSP   3                                                   5  1175  U %U3 B             28    003
257  2 570          LCA   3999,3997                                           7  1180  L I99 I97           28   3999   3997
258  2 580          RTW   3,RIAREA             BACKSPACE-READ                8  1187  L %U3 N01 R         28    003   2501
259  2 590          LCA   RMBLNK                                             4  1195  L X06               28   1706
260  2 600          BER   RETRY                 CHECK REDUNDANCY              5  1199  B /60 L             29   1160
261  2 610          B     TSTTM                 RECORD GOOD                   4  1204  B 593               29    593
262  2 620  TSTSSF  BSS   TSTTM,F               SS F -CONTINUE                5  1208  B 593 F             29    593
263  2 630          H                           HALT-USER SET SW              1  1213  .                   29
264  2 640          BSS   RETRY-7,G                                           5  1214  B /53 G             29   1153
265  2 650  BKSPRD  BSP   3                                                   5  1219  U %U3 B             29    003
266  2 660          LCA   3999,3997                                           7  1224  L I99 I97           29   3999   3997
267  2 670          RTW   3,RIAREA             BACKSPACE-READ                8  1231  L %U3 N01 R         30    003   2501
268  2 680          LCA   RMBLNK                                             4  1239  L X06               30   1706
269  2 690          H     TSTTM                 HALT-USER FIX                 4  1243  . 593               30    593
270  2 700  OPTNB   MCW   KBEE,OPTNB-4         CANNOT FIX-READ               7  1247  M W97 S43           30   1697   1243
271  2 710          B     BKSPRD                AND PROCESS                   4  1254  B S19               30   1219
272  2 720          DCW   09                                                  2  1259                      30
273  2 730  TRYCTR  DCW   09                                                  2  1261                      30
274  2 740  KNORCS  DCW   #8                                                  8  1269                      31
275  2 750  RECLEG  DCW   @RECORDS@                                           7  1276                      31
276  2 760  KNOFLS  DCW   99                                                  2  1278                      31
277  2 770  NOFLSP  DCW   @0?@   0+                                          2  1280                      31
278  2 780  FILE1   DCW   #2                                                  2  1282                      31
279  2 790  FILE2   DCW   #2                                                  2  1284                      31
280  2 800  FILE3   DCW   #2                                                  2  1286                      31
281  2 810  FILE4   DCW   #2                                                  2  1288                      32
282  2 820  FLSELA  DSA   FILE1-2                                            3  1291  S80                 32   1280
283  2 830  PAGE    DCW   @PAGE @                                            5  1296                      32
284  2 840  PAGENO  DCW   @   1@                                             4  1300                      32
285  2 850  KNOLNS  DCW   #2                                                  2  1302                      32
286  2 860  LNSCTR  DCW   #2                                                  2  1304                      32
287  2 870  LINE1   DCW   #1                                                  1  1305                      32
288  2 880  LINE1A  DS    79                                                     1384
289  2 890  LINE1B  DS    52                                                     1436
290  2 900  LNE1FC  DCW   #1                                                  1  1437                      33
291  2 910  LINE2   DCW   #1                                                  1  1438                      33
292  2 920  LINE2A  DS    79                                                     1517
293  2 930  LINE2B  DS    52                                                     1569
294  2 940  LNE2FC  DCW   #1                                                  1  1570                      34
295  2 950  ADDLN1  DSA   LINE1B                                             3  1573  U36                 34   1436
296  2 960  KRECLG  DCW   0000                                               4  1577                      34
297  2 970  PARAM1  DCW   #4                                                  4  1581                      34
298  2 980  KLINLG  DCW   #4                                                  4  1585                      34
299  2 990  PARAM2  DCW   #4                                                  4  1589                      34
300  3 000  RCLCNV  DCW   #3                                                  3  1592                      34
301  3 010  KBLKNG  DCW   000                                                3  1595                      35
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SEQ PG LIN  LABEL   OP   OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

302  3 020  BLKCTR DCW  #3                                          3  1598                      35
303  3 030  TRUEBL DCW  000                                         3  1601                      35
304  3 040  TAPADD DCW  #3                                          3  1604                      35
305  3 050  SKPTST DCW  #1                                          1  1605                      35
306  3 060  FCCHAR DCW  @/@                                        1  1606                      35
307  3 070  FCINST DCW  @N@                                        1  1607                      35
308  3 080  FCBLKC DCW  0                                          1  1608                      36
309  3 090  SEQHLD DCW  #30                                        30  1638                      36
310  3 100  SEQADD DCW  #3                                         3  1641                      36
311  3 110  EXCOPT DCW  #1                                         1  1642                      36
312  3 120  C1ADDR DCW  000                                        3  1645                      36
313  3 130  C2ADDR DCW  000                                        3  1648                      37
314  3 140  CHAR1  DCW  #1                                         1  1649                      37
315  3 150  CHAR2  DCW  #1                                         1  1650                      37
316  3 160  TSTCH1 DCW  #1                                         1  1651                      37
317  3 170  TSTCH2 DCW  #1                                         1  1652                      37
318  3 180  PNHLGT DCW  #4                                         4  1656                      37
319  3 190  TPELGT DCW  #4                                         4  1660                      37
320  3 200  BYPASS DCW  #1                                         1  1661                      38
321  3 210  EXITCT DCW  #1                                         1  1662                      38
322  3 220  OVFAD3 DSA  RECRD                                      3  1665  569                 38    569
323  3 230  ADLINK DSA  LINKGE                                     3  1668  |58                 38   1058
324  3 240  KRRR   DSA  RIAREA-1                                   3  1671  N00                 38   2500
325  3 250  KZEROP DCW  +0000              WAS DCW  000+           4  1675                      38
326  3 260  ONE    DCW  1                                          1  1676                      38
327  3 270  KTWO   DCW  2                                          1  1677                      39
328  3 280  KFOUR  DCW  4                                          1  1678                      39
329  3 290  K80    DCW  0080                                       4  1682                      39
330  3 300  K100   DCW  100                                        3  1685                      39
331  3 310  K200   DCW  200                                        3  1688                      39
332  3 320  K133   DCW  133                                        3  1691                      39
333  3 330  BLANK  DCW  #1                                         1  1692                      39
334  3 340  KENN   NOP                    WAS DCW  @N@            1  1693  N                   40
335  3 350  ASTRSK DCW  @***@                                      3  1696                      40
336  3 360  KBEE   B                      WAS DCW  @B@            1  1697  B                   40
337  3 370  K11    DCW  011                                        3  1700                      40
338  3 380  AMPRSD DCW  @+@                                        1  1701                      40
339  3 390  K001   DCW  001                                        3  1704                      40
340  3 400  RMBLNK DCW  @| @                                       2  1706                      40
341  3 410  KTHREE DCW  3                                          1  1707                      41
342  3 420  KG83   DSA  3783              WAS DCW  @G83@          3  1710  G83                 41   3783
343  3 430  RIAREA EQU  2501              WAS DS   2501               2501
344  3 440         ORG  81                                                  0081
345  3 450  EXCDSA DSA  SEQNCE                                     3  0083  879                 42    879
346  3 460  KDEE   MN                     WAS DCW  @D@            1  0084  D                   42
347  3 470  KYYY   MZ                     WAS DCW  @Y@            1  0085  Y                   42
348  3 480  KMAXLG DCW  1496                                       4  0089                      42
349  3 490  KMINLG DCW  1279                                       4  0093                      42
350  3 500  KG79   DSA  3779              WAS DCW  @G79@          3  0096  G79                 42   3779
351  3 510  TEMP   DCW  #3                                         3  0099                      42
352  3 520  K16    DCW  16                                         2  0101                      43
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SEQ PG LIN  LABEL   OP   OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

353  3 530  KEMM   MCW                    WAS DCW  @M@            1  0102  M                   43
354  3 540  KZEE   MCS                    WAS DCW  @Z@            1  0103  Z                   43
355  3 550         ORG  3990                                                3990
356  3 560  TABLE  DCW  @2SKB@                                      4  3993                      44
357  3 570         ORG  3997                                                3997
358  3 580  GRPMRK DCW  @}@                                        1  3997        GMARK         45
359  3 590         ORG  104                                                 0104
360  3 600  K03    DCW  03                                         2  0105                      46
361  3 610  K10    DCW  10                                         2  0107                      46
362  3 620  HLDADD DSA  SEQHLD-30                                 3  0110  W08                 46   1608
363  3 630  SLASH  DCW  @/@                                        1  0111                      46
364  3 640  ESS    DCW  @S@                                        1  0112                      46
365  3 650  TEE    DCW  @T@                                        1  0113                      46
366  3 660  ADDED1 DCW  #3                                         3  0116                      46
367  3 670         DCW  #3                                         3  0119                      47
368  3 680         DCW  #3                                         3  0122                      47
369  3 690         DCW  #3                                         3  0125                      47
370  3 700         DCW  #3                                         3  0128                      47
371  3 710         DCW  #3                                         3  0131                      47
372  3 720         DCW  #3                                         3  0134                      47
373  3 730         DCW  #3                                         3  0137                      47
374  3 740         DCW  #3                                         3  0140                      48
375  3 750         DCW  #3                                         3  0143                      48
376  3 760         DCW  #3                                         3  0146                      48
377  3 770         DCW  #3                                         3  0149                      48
378  3 780         DCW  #3                                         3  0152                      48
379  3 790         DCW  #3                                         3  0155                      48
380  3 800         DCW  #3                                         3  0158                      48
381  3 810  ADDED0 DCW  #3                                         3  0161                      49
382  3 820  EDTWDA DS   80                                           0241
383  3 830  EDTWDB DS   80                                           0321
384  3 840  ADDSTR DSA  3828              WAS DCW  @H28@          3  0324  H28                 50   3828
385  3 850  EDTTST DSA  EDTWDB                                     3  0327  321                 50    321
386  3 860         ORG  2500                                                2500
387  3 870  ANAL1  CS   80                                         4  2500  / 080               51    080
388  3 880         SW   1                                          4  2504  , 001               51    001
389  3 890         SW   3472,3605                                  7  2508  , D72 F05           51   3472   3605
390  3 900         SW   3738,3739                                  7  2515  , G38 G39           51   3738   3739
391  3 910         SW   3899                                       4  2522  , H99               51   3899
392  3 920         R                                               1  2526  1                   51
393  3 930         SS   1                                          2  2527  K 1                 51
394  3 940         BCE  ERROR1,4,          CHECK FOR RECORD        8  2529  B ?62 004           52   3062    004
395  3 950         BCE  ERROR1,10,         LENGTH + LINE LG        8  2537  B ?62 010           52   3062    010
396  3 960         LCA  80,3179            STORE CC 1              7  2545  L 080 A79           52    080   3179
397  3 970         MCW  80,TEMP                                    7  2552  M 080 099           52    080    099
398  3 980         BCE  STORFH,3154,       BR IF NOT FLDSEL        8  2559  B O18 A54           52   2618   3154
399  3 990         MCW  ONE,DECKSL+7       SET FIELD SELPGM        7  2567  M W76 ?34           53   1676   3034
400  4 000         C    3154,K03                                   7  2574  C A54 105           53   3154    105
401  4 010         BH   STORFH                                     5  2581  B O18 U             53   2618
402  4 020         R                                               1  2586  1                   53
403  4 030         SS   1                                          2  2587  K 1                 53
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SEQ PG LIN  LABEL   OP    OPERANDS                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

404  4 040          LCA   77,3253                 7  2589  L 077 B53           53    077   3253
405  4 050          C     3154,K10                7  2596  C A54 107           53   3154    107
406  4 060          BH    STORFH                  5  2603  B O18 U             54   2618
407  4 070          R                             1  2608  1                   54
408  4 080          SS    1                       2  2609  K 1                 54
409  4 090          LCA   77,3330                 7  2611  L 077 C30           54    077   3330
410  4 100  STORFH  MN    3145,LNSCTR             7  2618  D A45 T04           54   3145   1304
411  4 110          C     3145,KTHREE             7  2625  C A45 X07           54   3145   1707
412  4 120          BL    ERROR2                  5  2632  B ?63 T             54   3063
413  4 130  NXTFHD  S     ONE,LNSCTR              7  2637  S W76 T04           55   1676   1304
414  4 140          BWZ   STORVH,LNSCTR,K         8  2644  V P26 T04 K         55   2726   1304
415  4 150          R                             1  2652  1                   55
416  4 160          SS    1                       2  2653  K 1                 55
417  4 170  FIXCD1  LCA   80,3419                 7  2655  L 080 D19           55    080   3419
418  4 180          R                             1  2662  1                   55
419  4 190          SS    1                       2  2663  K 1                 55
420  4 200  FIXCD2  MCW   52,3471                 7  2665  M 052 D71           56    052   3471
421  4 210          MCW   80,3472                 7  2672  M 080 D72           56    080   3472
422  4 220          SW    FIXCD1+4,FIXCD2+4       7  2679  , 059 O69           56   2659   2669
423  4 230          SW    FIXCD2+11               4  2686  , O76               56   2676
424  4 240          A     K133,FIXCD1+6           7  2690  A W91 O61           56   1691   2661
425  4 250          A     K133,FIXCD2+6           7  2697  A W91 O71           56   1691   2671
426  4 260          A     K133,FIXCD2+13          7  2704  A W91 O78           57   1691   2678
427  4 270          CW    FIXCD1+4,FIXCD2+4       7  2711  ) O59 O69           57   2659   2669
428  4 280          CW    FIXCD2+11               4  2718  ) O76               57   2676
429  4 290          B     NXTFHD                  4  2722  B O37               57   2637
430  4 300  STORVH  MN    3147,KNOLNS             7  2726  D A47 T02           57   3147   1302
431  4 310          ZA    KNOLNS,LNSCTR           7  2733  ? T02 T04           57   1302   1304
432  4 320          C     3147,KTWO               7  2740  C A47 W77           58   3147   1677
433  4 330          BL    ERROR3                  5  2747  B ?64 T             58   3064
434  4 340  NXTVHD  S     ONE,LNSCTR              7  2752  S W76 T04           58   1676   1304
435  4 350          BWZ   STORHL,LNSCTR,K         8  2759  V Q27 T04 K         58   2827   1304
436  4 360          R                             1  2767  1                   58
437  4 370          SS    1                       2  2768  K 1                 58
438  4 380  VARCD1  LCA   80,LINE1A               7  2770  L 080 T84           58    080   1384
439  4 390          R                             1  2777  1                   59
440  4 400          SS    1                       2  2778  K 1                 59
441  4 410  VARCD2  MCW   52,LINE1B               7  2780  M 052 U36           59    052   1436
442  4 420          BCE   *+8,80,/                8  2787  B Q02 080 /         59   2802    080
443  4 430          MCW   80,LNE1FC               7  2795  M 080 U37           59    080   1437
444  4 440          MCW   ADDL2A,VARCD1+6         7  2802  M ?70 P76           59   3070   2776
445  4 450          MCW   ADDL2B,VARCD2+6         7  2809  M ?73 P86           59   3073   2786
446  4 460          MCW   ADDL2F,VARCD2+21        7  2816  M ?76 Q01           60   3076   2801
447  4 470          B     NXTVHD                  4  2823  B P52               60   2752
448  4 480  STORHL  BCE   *+5,3151,4              8  2827  B Q39 A51 4         60   2839   3151
449  4 490          B     STORTL                  4  2835  B Q79               60   2879
450  4 500          R                             1  2839  1                   60
451  4 510          SS    1                       2  2840  K 1                 60
452  4 520          LCA   80,3818                 7  2842  L 080 H18           60    080   3818
453  4 530          SW    3148                    4  2849  , A48               61   3148
454  4 540          C     K80,3150                7  2853  C W82 A50           61   1682   3150
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SEQ PG LIN  LABEL   OP    OPERANDS                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

455  4 550          BH    *+5                     5  2860  B Q69 U             61   2869
456  4 560          B     STORTL                  4  2865  B Q79               61   2879
457  4 570          R                             1  2869  1                   61
458  4 580          SS    1                       2  2870  K 1                 61
459  4 590          MCW   80,3898                 7  2872  M 080 H98           61    080   3898
460  4 600  STORTL  BCE   EDITST,TEMP-1,          8  2879  B Q97 098           62   2897    098
461  4 610          R                             1  2887  1                   62
462  4 620          SS    1                       2  2888  K 1                 62
463  4 630          LCA   80,3978                 7  2890  L 080 I78           62    080   3978
464  4 640  EDITST  BCE   SELPGM,TEMP-2,          8  2897  B ?04 097           62   3004    097
465  4 650          SW    2,4                     7  2905  , 002 004           62    002    004
466  4 660  NXTEDT  R                             1  2912  1                   62
467  4 670          BCE   *+12,1,)                8  2913  B R32 001 )         63   2932    001
468  4 680          CW    2,4                     7  2921  ) 002 004           63    002    004
469  4 690          B     SELPGM+1                4  2928  B ?05               63   3005
470  4 700          SS    1                       2  2932  K 1                 63
471  4 710          MCW   K03,STEDIT+3            7  2934  M 105 R66           63    105   2966
472  4 720          A     3,STEDIT+3              7  2941  A 003 R66           63    003   2966
473  4 730          SW    STEDIT+4                4  2948  , R67               63   2967
474  4 740          A     3,STEDIT+6              7  2952  A 003 R69           64    003   2969
475  4 750          CW    STEDIT+4                4  2959  ) R67               64   2967
476  4 760  STEDIT  LCA   0-0,ADDED0             7  2963  L 000 161           64    000    161
477  4 770          A     3,ADDED1                7  2970  A 003 116           64    003    116
478  4 780          A     KTHREE,STEDIT+13        7  2977  A X07 R76           64   1707   2976
479  4 790          C     STEDIT+6,EDTTST         7  2984  C R69 327           64   2969    327
480  4 800          BL    ERREDT                  5  2991  B ?00 T             65   3000
481  4 810          B     NXTEDT                  4  2996  B R12               65   2912
482  4 820  ERREDT  H     *-3                     4  3000  . ?00               65   3000
483  4 830  SELPGM  R                             1  3004  1                   65
484  4 840          SW    24,56                   7  3005  , 024 056           65    024    056
485  4 850          SW    63,67                   7  3012  , 063 067           65    063    067
486  4 860          BCE   VARRCD,3103,V           8  3019  B ?39 A03 V         65   3039   3103
487  4 870  DECKSL  BCE   56,76,2                8  3027  B 056 076 2         66    056    076
488  4 880          R     DECKSL                  4  3035  1 ?27               66   3027
489  4 890  VARRCD  MCW   KTHREE,DECKSL+7        7  3039  M X07 ?34           66   1707   3034
490  4 900          B     DECKSL                  4  3046  B ?27               66   3027
491  4 910  RUNOUT  BCE   56,76,                 8  3050  B 056 076           66    056    076
492  4 920          R     RUNOUT                  4  3058  1 ?50               66   3050
493  4 930  ERROR1  H                             1  3062  .                   66
494  4 940  ERROR2  H                             1  3063  .                   67
495  4 950  ERROR3  H     *-3                     4  3064  . ?64               67   3064
496  4 960  ADDL2A  DSA   LINE2A                  3  3070  V17                 67   1517
497  4 970  ADDL2B  DSA   LINE2B                  3  3073  V69                 67   1569
498  4 980  ADDL2F  DSA   LNE2FC                 3  3076  V70                 67   1570
499  4 990          EX    ANAL1                      B N00                   68   2500
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

500                 JOB   TAPE TO PRINTER 1401 UTILITY - FIELD SELECTOR
501  5 000          ORG   1711                                            1711
502  5 020  START1  MCW   KBLKNG,BLKCTR      SET BLOCK CTR                7  1711  M V95 V98          71   1595   1598
503  5 030          MCW   KRRR,TAPEMD        START TAPE ADDRS             7  1718  M W71 K88          71   1671   2288
504  5 040  FLSREC  MCW   ONE,COMPRL+7       SET LINE NO EQ 1             7  1725  M W76 Z71          71   1676   1971
505  5 050          MCW   KG83,EDITAD        SET EDIT WORD AD             7  1732  M X10 M85          71   1710   2485
506  5 060          MCW   TAPEMD,TAPADD                                   7  1739  M K88 W04          71   2288   1604
507  5 070          B     SUBRTN             BR TO EXC + SEQ              4  1746  B 787              71    787
508  5 080  SETUP1  MCW   KFLDCT,FLDCTR      SET NO OF FIELDS             7  1750  M K90 K92          72   2290   2292
509  5 090          LCA   ADDFLD,PTSTUP+14                                7  1757  L M82 Z35          72   2482   1935
510  5 100          B     SKPSUB             BR TO FORM CTL               4  1764  B 935              72    935
511  5 110  EXCPFS  BCE   PNHNOT,EXCOPT,1    EXCOPT 1-BYPASS              8  1768  B Z10 W42 1        72   1910   1642
512  5 120          MCW   K80,PNHLGT                                      7  1776  M W82 W56          72   1682   1656
513  5 130          MCW   KRECLG,TPELGT                                   7  1783  M V77 W60          73   1577   1660
514  5 140          LCA   TAPEMD,TAPEPN+3    SET UP ADDRESSES             7  1790  L K88 Y55          73   2288   1855
515  5 150  NXTCD   LCA   K100,TAPEPN+6      FOR MOVE INSTR               7  1797  L W85 Y58          73   1685   1858
516  5 160          C     TPELGT,PNHLGT                                   7  1804  C W60 W56          73   1660   1656
517  5 170          BL    ADDLGT             SET CARD LENGTH              5  1811  B Y23 T            73   1823
518  5 180          MCW   TPELGT,PNHLGT      EQ REC IF LESS               7  1816  M W60 W56          74   1660   1656
519  5 190  ADDLGT  A     PNHLGT,TAPEPN+3    MODIFY MOVE                  7  1823  A W56 Y55          74   1656   1855
520  5 200          A     PNHLGT,TAPEPN+6    ADDRESSES                    7  1830  A W56 Y58          74   1656   1858
521  5 210          CS    180                                             4  1837  / 180              74    180
522  5 220          SW    101                                             4  1841  , 101              74    101
523  5 230          CW    TAPEPN+1,TAPEPN+4                               7  1845  ) Y53 Y56          74   1853   1856
524  5 240  TAPEPN  MCW   0-0,0-0            MOVE REC TO CARD             7  1852  M 000 000          75    000    000
525  5 250          SW    TAPEPN+1                                        4  1859  , Y53              75   1853
526  5 260          P                        PUNCH OR NOP                 1  1863  4                  75
527  5 270          S     PNHLGT,TPELGT                                   7  1864  S W56 W60          75   1656   1660
528  5 280          C     TPELGT,KZEROP      TEST FOR ZERO                7  1871  C W60 W75          75   1660   1675
529  5 290          BU    NXTCD              ANOTHER IF NOT               5  1878  B X97 /            75   1797
530  5 300          MCW   KFOUR,TAPEPN+11                                 7  1883  M W78 Y63          75   1678   1863
531  5 310          BCE   TSTBLK,EXITCT,1    SPACE SUPPR RECD             8  1890  B J18 W62 1        76   2118   1662
532  5 320          BCE   SEQNCE,EXCOPT,3    OPT-PUNCH + PRNT             8  1898  B 879 W42 3        76    879   1642
533  5 330          B     TSTBLK                                          4  1906  B J18              76   2118
534  5 340  PNHNOT  MCW   KENN,TAPEPN+11     BYPASS OR SUPPRS             7  1910  M W93 Y63          76   1693   1863
535  5 350          B     EXCPFS+8                                        4  1917  B X76              76   1776
536  5 360  PTSTUP  A     K11,PTSTUP+14      MODIFY FIELD                 7  1921  A X00 Z35          76   1700   1935
537  5 370          CW    PTSTUP+12          PARAM PICKUP                 4  1928  ) Z33              77   1933
538  5 380          LCA   0-0,FLDANL         PICKUP FLD PARAM             7  1932  L 000 M79          77    000   2479
539  5 390          MCW   ONE,BYPASS                                      7  1939  M W76 W61          77   1676   1661
540  5 400          SW    PTSTUP+12,FLDANL-3                              7  1946  , Z33 M76          77   1933   2476
541  5 410          SW    FLDANL-4,FLDANL-7                               7  1953  , M75 M72          77   2475   2472
542  5 420          SW    FLDANL                                          4  1960  , M79              77   2479
543  5 430  COMPRL  BCE   OVFRT1+5,FLDANL-4,0  FIELD SAME LINE           8  1964  B Z90 M75 0        78   1990   2475
544  5 440          W                        PRINT IF NOT                 1  1972  2                  78
545  5 450          MCW   OVFAD1,TPREAD+8                                 7  1973  M K82 567          78   2282    567
546  5 460          BCV   NXTPGE             EJECT IF OVERFLO             5  1980  B 425 @            78    425
547  5 470  OVFRT1  CS    332                                             4  1985  / 332              78    332
548  5 480          CS                                                    1  1989  /                  78
549  5 490          BCE   SETZRO,FLDANL-5,Z  TEST ZERO EMIT              8  1990  B J80 M74 Z        78   2180   2474
550  5 500          A     TAPEMD,FLDANL-5    MODIFY ADDRESSES             7  1998  A K88 M74          79   2288   2474
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

551  5 510          A     TAPEMD,FLDANL-8    TO MOVE FIELD TO             7  2005  A K88 M71          79   2288   2471
552  5 520          MCW   FLDANL,MOVETP+4    PRINT AREA                   7  2012  M M79 !44          79   2479   2044
553  5 530          MCW   FLDANL-1,MOVETP+10                              7  2019  M M78 !50          79   2478   2050
554  5 540          MCW   FLDANL-5,MOVETP+7                               7  2026  M M74 !47          79   2474   2047
555  5 550          MCW   FLDANL-8,MOVETP+3                               7  2033  M M71 !43          80   2471   2043
556  5 560  MOVETP  SW    0-0                                             4  2040  , 000              80    000
557  5 570          MCW   0-0,0-0            MCW,MCS OR NOP               7  2044  M 000 000          80    000    000
558  5 580          BCE   EDITRN,FLDANL,N                                 8  2051  B K20 M79 N        80   2220   2479
559  5 590  TFLDCT  MCW   FLDANL-8,*+4                                    7  2059  M M71 !69          80   2471   2069
560  5 600          CW    0-0                                             4  2066  ) 000              80    000
561  5 610          S     ONE,FLDCTR         SUBT 1-NO FIELDS             7  2070  S W76 K92          81   1676   2292
562  5 620          MCW   FLDANL-4,COMPRL+7  RESET LINE NO                7  2077  M M75 Z71          81   2475   1971
563  5 630          BWZ   PTSTUP,FLDCTR,B    NEXT FIELD-PLUS              8  2084  V Z21 K92 B        81   1921   2292
564  5 640          BCE   PRINTR,SKPTST,1                                 8  2092  B J17 W05 1        81   2117   1605
565  5 650  NORMAL  MCW   FCCHAR,PRINTR-1    SET FORM CONTROL             7  2100  M W06 J16          81   1606   2116
566  5 660          BCE   PRINTR,PRINTR-1,/                               8  2107  B J17 J16 /        82   2117   2116
567  5 670          CC    0                                               2  2115  F 0                82
568  5 680  PRINTR  W                                                     1  2117  2                  82
569  5 690  TSTBLK  CS    332                                             4  2118  / 332              82    332
570  5 700          CS                                                    1  2122  /                  82
571  5 710          MCW   OVFAD6,TPREAD+8                                 7  2123  M K85 567          82   2285    567
572  5 720          S     ONE,BLKCTR                                      7  2130  S W76 V98          82   1676   1598
573  5 730          A     RCLCNV,TAPEMD      BUMP TAPE ADDRS              7  2137  A V92 K88          83   1592   2288
574  5 740          BWZ   BLOCK,BLKCTR,K     BR IF END OF BLK             8  2144  V J69 V98 K        83   2169   1598
575  5 750          BCE   PAGEOP,PRINTR-1,A                               8  2152  B 443 J16 A        83    443   2116
576  5 760          BCV   NXTPGE             EJECT IF OVERFLO             5  2160  B 425 @            83    425
577  5 770          B     FLSREC             GET NEXT RECORD              4  2165  B X25              83   1725
578  5 780  BLOCK   A     TRUEBL,KNORCS      BUMP NO OF RCRDS             7  2169  A W01 S69          83   1601   1269
579  5 790          B     TESTOF             TO BLK FROM CTL              4  2176  B /00              84   1100
580  5 800  SETZRO  MCW   FLDANL-8,*+4                                    7  2180  M M71 J90          84   2471   2190
581  5 810          SW    0-0                                             4  2187  , 000              84    000
582  5 820          MCW   FLDANL-1,ZEROST+6  SET ADDRESS FOR              7  2191  M M78 K11          84   2478   2211
583  5 830          MCW   FLDANL-1,ZEROST+10  FIELD OF ZEROS             7  2198  M M78 K15          84   2478   2215
584  5 840  ZEROST  MCW   KZEROP-3,0-0       GENERATE FIELD               7  2205  M W72 000          84   1672    000
585  5 850          MCW   0-0                OF ZEROS                     4  2212  M 000              85    000
586  5 860          B     TFLDCT             TO BUMP NO FLDS              4  2216  B !59              85   2059
587  5 870  EDITRN  MCW   FLDANL-1,LDEDIT+6  SET UP ADDRESSES             7  2220  M M78 K61          85   2478   2261
588  5 880          MCW   FLDANL-1,LDEDIT+13  OF FIELD FROM              7  2227  M M78 K68          85   2478   2268
589  5 890          MCW   FLDANL-5,LDEDIT+10  TAPE RECORD                7  2234  M M74 K65          85   2474   2265
590  5 900          MCW   EDITAD,*+4          SET UP ADDRESS               7  2241  M M85 K51          85   2485   2251
591  5 910          MCW   0-0,LDEDIT+3       OF EDIT WORD                 7  2248  M 000 K58          86    000   2258
592  5 920  LDEDIT  LCA   0-0,0-0            LOAD EDIT WORD               7  2255  L 000 000          86    000    000
593  5 930          MCE   0-0,0-0            EDIT FIELD                   7  2262  E 000 000          86    000    000
594  5 940          A     KTHREE,EDITAD      BUMP EDIT ADDRS              7  2269  A X07 M85          86   1707   2485
595  5 950          B     TFLDCT             TO BUMP NO FLDS              4  2276  B !59              86   2059
596  5 960  OVFAD1  DSA   OVFRT1                                          3  2282  Z85                86   1985
597  5 970  OVFAD6  DSA   FLSREC                                          3  2285  X25                86   1725
598  5 980  TAPEMD  DCW   #3                                              3  2288                     87
599  5 990  KFLDCT  DCW   00                                              2  2290                     87
600  6 000  FLDCTR  DCW   #2                                              2  2292                     87
601  6 010  FIELD1  DCW   #11                                            11  2303                     87
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

602  6 020          DCW   #11                                      11  2314                      87
603  6 030          DCW   #11                                      11  2325                      88
604  6 040          DCW   #11                                      11  2336                      88
605  6 050          DCW   #11                                      11  2347                      88
606  6 060          DCW   #11                                      11  2358                      89
607  6 070          DCW   #11                                      11  2369                      89
608  6 080          DCW   #11                                      11  2380                      89
609  6 090          DCW   #11                                      11  2391                      90
610  6 100          DCW   #11                                      11  2402                      90
611  6 110          DCW   #11                                      11  2413                      90
612  6 120          DCW   #11                                      11  2424                      91
613  6 130          DCW   #11                                      11  2435                      91
614  6 140          DCW   #11                                      11  2446                      91
615  6 150          DCW   #11                                      11  2457                      92
616  6 160  FIELD0   DCW   #11                                      11  2468                      92
617  6 170  FLDANL   DCW   #11                                      11  2479                      92
618  6 180  ADDFLD   DSA   FIELD1-11                                3  2482  K92                 92   2292
619  6 190  EDITAD   DCW   #3                                       3  2485                      92
620  6 200          EX    RUNOUT                                          B ?50                94   3050
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

621                JOB   TAPE TO PRINT 1401 UTILITY - FIXED LENGTH
622  6 210          ORG   1711                                             1711
623  6 230  START2  MCW   KBLKNG,BLKCTR      SET BLOCK CTR             7  1711  M V95 V98           97   1595   1598
624  6 240          LCA   KRRR,MVLTOP+3       SET TAPE ADDRS            7  1718  L W71 Z61           97   1671   1961
625  6 250  FIXREC  MCW   MVLTOP+3,TAPADD                              7  1725  M Z61 W04           97   1961   1604
626  6 260          B     SUBRTN             BR TO EXC + SEQ           4  1732  B 787               97    787
627  6 270  SETUP2  MCW   KRECLG,PARAM1      SET UP RECORD             7  1736  M V77 V81           97   1577   1581
628  6 280          MCW   KLINLG,PARAM2      LENGTH,LINE LGTH          7  1743  M V85 V89           97   1585   1589
629  6 290          LCA   K200,MVLTOP+6                                7  1750  L W88 Z64           98   1688   1964
630  6 300          B     SKPSUB             BR TO FROM CTL            4  1757  B 935               98    935
631  6 310  EXCPTN  BCE   NOPNCH,EXCOPT,1    EXTOPT 1-BYPASS           8  1761  B Z10 W42 1         98   1910   1642
632  6 320          MCW   K80,PNHLGT                                   7  1769  M W82 W56           98   1682   1656
633  6 330          MCW   KRECLG,TPELGT                                7  1776  M V77 W60           98   1577   1660
634  6 340          LCA   MVLTOP+3,TPTOPN+3  SET UP ADDRESSES          7  1783  L Z61 Y48           99   1961   1848
635  6 350  NXTRCD  LCA   K100,TPTOPN+6      FOR MOVE INSTR            7  1790  L W85 Y51           99   1685   1851
636  6 360          C     TPELGT,PNHLGT                                7  1797  C W60 W56           99   1660   1656
637  6 370          BL    ADDPNL             SET CARD LENGTH           5  1804  B Y16 T             99   1816
638  6 380          MCW   TPELGT,PNHLGT      EQ REC IF LESS            7  1809  M W60 W56           99   1660   1656
639  6 390  ADDPNL  A     PNHLGT,TPTOPN+3    MODIFY MOVE               7  1816  A W56 Y48          100   1656   1848
640  6 400          A     PNHLGT,TPTOPN+6    ADDRESSES                 7  1823  A W56 Y51          100   1656   1851
641  6 410          CS    180                                          4  1830  / 180              100    180
642  6 420          SW    101                                          4  1834  , 101              100    101
643  6 430          CW    TPTOPN+1,TPTOPN+4                            7  1838  ) Y46 Y49          100   1846   1849
644  6 440  TPTOPN  MCW   0-0,0-0            MOVE REC TO CARD          7  1845  M 000 000          100    000    000
645  6 450          SW    TPTOPN+1                                     4  1852  , Y46              101   1846
646  6 460          P                        PUNCH OR NOP              1  1856  4                  101
647  6 470          S     PNHLGT,TPELGT                                7  1857  S W56 W60          101   1656   1660
648  6 480          C     TPELGT,KZEROP      TEST FOR ZERO             7  1864  C W60 W75          101   1660   1675
649  6 490          BU    NXTRCD             ANOTHER IF NOT            5  1871  B X90 /            101   1790
650  6 500          MCW   KFOUR,TPTOPN+11                              7  1876  M W78 Y56          101   1678   1856
651  6 510          BCE   *+9,EXITCT,1       SPACE SUPPR RECD          8  1883  B Y99 W62 1        101   1899   1662
652  6 520          BCE   SEQNCE,EXCOPT,3    OPT-PUNCH + PRNT          8  1891  B 879 W42 3        102    879   1642
653  6 530          MCW   TPTOPN+3,MVLTOP+3  BYPASS PRINTING           7  1899  M Y48 Z61          102   1848   1961
654  6 540          B     BLKTST                                       4  1906  B J09              102   2109
655  6 550  NOPNCH  MCW   KENN,TPTOPN+11     BYPASS OR SUPPRS          7  1910  M W93 Y56          102   1693   1856
656  6 560          B     EXCPTN+8                                     4  1917  B X69              102   1769
657  6 570  PNTSTP  A     PARAM2,MVLTOP+3    MODIFY MOVE TO            7  1921  A V89 Z61          102   1589   1961
658  6 580          A     PARAM2,MVLTOP+6    PRINT INSTR               7  1928  A V89 Z64          103   1589   1964
659  6 590          MCW   ONE,BYPASS                                   7  1935  M W76 W61          103   1676   1661
660  6 600          CS    332                                          4  1942  / 332              103    332
661  6 610          CS                                                 1  1946  /                  103
662  6 620          SW    201                                          4  1947  , 201              103    201
663  6 630          CW    MVLTOP+1,MVLTOP+4                            7  1951  ) Z59 Z62          103   1959   1962
664  6 640  MVLTOP  MCW   0-0,0-0            MOVE TO PRINT             7  1958  M 000 000          103    000    000
665  6 650          SW    MVLTOP+1,MVLTOP+4                            7  1965  , Z59 Z62          104   1959   1962
666  6 660          C     PARAM1,PARAM2                                7  1972  C V81 V89          104   1581   1589
667  6 670          BL    PRNTLN             BR IF NOT END             5  1979  B !47 T            104   2047
668  6 680          BH    ERROR              BR IF LL GRTR RL          5  1984  B J54 U            104   2154
669  6 690          MCW   MVLTOP+6,*+7                                 7  1989  M Z64 !02          104   1964   2002
670  6 700          BCE   *+5,0-,|           TEST LO FOR RM            8  1996  B !08 000 |        104   2008    000
671  6 710          B     FORMAT                                       4  2004  B !22              105   2022
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

672  6 720         MCW   MVLTOP+6,*+7       ELIMINATE LOW            7  2008  M Z64 !21          105   1964   2021
673  6 730         MCW   BLANK,0-0          ORDER RECORD MRK         7  2015  M W92 000          105   1692    000
674  6 740  FORMAT BCE   PRNTLN,SKPTST,1                            8  2022  B !47 W05 1        105   2047   1605
675  6 750  NORMFC MCW   FCCHAR,PRNTLN-1    SET FORM CONTROL         7  2030  M W06 !46          105   1606   2046
676  6 760         BCE   PRNTLN,PRNTLN-1,/                          8  2037  B !47 !46 /        106   2047   2046
677  6 770         CC    0                                          2  2045  F 0                106
678  6 780  PRNTLN W                        PRINT LINE               1  2047  2                  106
679  6 790         MCW   OVFAD4,TPREAD+8                            7  2048  M J60 567          106   2160    567
680  6 800         BCV   NXTPGE             EJECT IF OVERFLO         5  2055  B 425 @            106    425
681  6 810  OVFRT4 S     PARAM2,PARAM1                              7  2060  S V89 V81          106   1589   1581
682  6 820         C     PARAM1,KZEROP      TEST END OF REC          7  2067  C V81 W75          106   1581   1675
683  6 830         BE    BLKTST             OUT IF TRUE              5  2074  B J09 S            107   2109
684  6 840         C     PARAM1,PARAM2      TEST REC LGTH            7  2079  C V81 V89          107   1581   1589
685  6 850         BL    *+8                LESS THAN LINE           5  2086  B !98 T            107   2098
686  6 860         MCW   PARAM1,PARAM2      LET LL EQ RL             7  2091  M V81 V89          107   1581   1589
687  6 870         LCA   K200,MVLTOP+6                              7  2098  L W88 Z64          107   1688   1964
688  6 880         B     PNTSTP             GET NEXT LINE            4  2105  B Z21              107   1921
689  6 890  BLKTST S     ONE,BLKCTR                                 7  2109  S W76 V98          108   1676   1598
690  6 900         BWZ   NEWPGE,BLKCTR,B    TEST END OF BLOCK        8  2116  V J35 V98 B        108   2135   1598
691  6 910         A     TRUEBL,KNORCS      BUMP NO OF RCRDS         7  2124  A W01 S69          108   1601   1269
692  6 920         B     TESTOF             TO BLK FORM CTL          4  2131  B /00              108   1100
693  6 930  NEWPGE MCW   ADFIXR,TPREAD+8                            7  2135  M J63 567          108   2163    567
694  6 940         BCE   PAGEOP-5,PRNTLN-1,A  TEST NEW PAGE         8  2142  B 438 !46 A        109    438   2046
695  6 950         B     FIXREC             NEXT RCRD IF NOT         4  2150  B X25              109   1725
696  6 960  ERROR  H     *-3                ERROR-R GR N             4  2154  . J54              109   2154
697  6 970  OVFAD4 DSA   OVFRT4                                      3  2160  !60                109   2060
698  6 980  ADFIXR DSA   FIXREC                                      3  2163  X25                109   1725
699  6 990         EX    RUNOUT                                                 B ?50              110   3050
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

700                JOB   TAPE TO PRINTER 1401 UTILITY - VARIABLE LENGTH
701  7 000         ORG   1711                                                    1711
702  7 020  START3 LCA   KRRR,MVRTOP+3      SET TAPE ADDRS           7  1711  L W71 J21          113   1671   2121
703  7 030  VARREC MCW   MVRTOP+3,TAPADD                           7  1718  M J21 W04          113   2121   1604
704  7 040         LCA   TAPADD,COMPND+6                            7  1725  L W04 X49          113   1604   1749
705  7 050         A     ONE,COMPND+6                               7  1732  A W76 X49          113   1676   1749
706  7 060         CW    COMPND+4                                   4  1739  ) X47              113   1747
707  7 070  COMPND C     RMBLNK-1,0-0       Q. END OF BLOCK          7  1743  C X05 000          113   1705    000
708  7 080         BE    BLKFMC             OUT IF YES               5  1750  B L23 S            114   2323
709  7 090         B     SUBRTN             BR TO EXC + SEQ          4  1755  B 787              114    787
710  7 100  SETUP3 LCA   K200,MVRTOP+6      SET PRINT ADDRS          7  1759  L W88 J24          114   1688   2124
711  7 110         B     SKPSUB             BR TO FORM CTL           4  1766  B 935              114    935
712  7 120  EXCPVR BCE   NOTPNH,EXCOPT,1    EXCOPT 1-BYPASS          8  1770  B Z96 W42 1        114   1996   1642
713  7 130         LCA   MVRTOP+3,TAPPNH+3  SET REC ADDR             7  1778  L J21 Y65          114   2121   1865
714  7 140         MCW   BLANK,TSTPGM                                7  1785  M W92 L44          115   1692   2344
715  7 150  NEWCRD CS    180                                        4  1792  / 180              115    180
716  7 160         SW    101                                        4  1796  , 101              115    101
717  7 170         LCA   K100,TAPPNH+006    SET CARD ADDR            7  1800  L W85 Y68          115   1685   1868
718  7 180  GETCHR A     ONE,TAPPNH+3       BUM RECORD AND           7  1807  A W76 Y65          115   1676   1865
719  7 190         A     ONE,TAPPNH+6       CARD ADRESSES            7  1814  A W76 Y68          115   1676   1868
720  7 200         MCW   TAPPNH+3,*+7                               7  1821  M Y65 Y34          116   1865   1834
721  7 210         BCE   RMFND,0-0,|        TEST FOR RECMRK          8  1828  B Y85 000 |        116   1885    000
722  7 220         C     NEWCRD+3,TAPPNH+6  TEST END OF CARD         7  1836  C X95 Y68          116   1795   1868
723  7 230         BL    GETCHR             NEXT CHAR IF NOT         5  1843  B Y07 T            116   1807
724  7 240         MCW   BLANK,SWITCH                               7  1848  M W92 L43          116   1692   2343
725  7 250  LOADPH CW    TAPPNH+1,TAPPNH+4                          7  1855  ) Y63 Y66          117   1863   1866
726  7 260  TAPPNH MCW   0-0,0-0             MOVE ONE CARD            7  1862  M 000 000          117    000    000
727  7 270         SW    TAPPNH+1                                   4  1869  , Y63              117   1863
728  7 280         BCE   PNCHCD,SWITCH,1                           8  1873  B Z36 L43 1        117   1936   2343
729  7 290         P     NEWCRD             PUNCH + RETURN           4  1881  4 X92              117   1792
730  7 300  RMFND  MCW   TAPPNH+3,TSTEOF+6  SET GM TEST ADDR         7  1885  M Y65 Z05          117   1865   1905
731  7 310         MCW   ONE,SWITCH                                 7  1892  M W76 L43          118   1676   2343
732  7 320  TSTEOF BW    GRMFND,0-0         TEST FOR END BLK         8  1899  V Z11 000 1        118   1911    000
733  7 330         B     LOADPH             RETURN IF NOT            4  1907  B Y55              118   1855
734  7 340  GRMFND MCW   ONE,TSTPGM                                 7  1911  M W76 L44          118   1676   2344
735  7 350         A     KI99,TAPPNH+3      SUBT 1 FROM              7  1918  A L42 Y65          118   2342   1865
736  7 360         A     KI99,TAPPNH+6      MOVE ADDRESSES           7  1925  A L42 Y68          119   2342   1868
737  7 370         B     LOADPH             RETURN TO PUNCH          4  1932  B Y55              119   1855
738  7 380  PNCHCD P                        PUNCH LAST CARD          1  1936  4                  119
739  7 390         MCW   KFOUR,PNCHCD       RESET NOP INSTRS         7  1937  M W78 Z36          119   1678   1936
740  7 400         MCW   KFOUR,RMFND-4      TO PUNCH INSTRS          7  1944  M W78 Y81          119   1678   1881
741  7 410         BCE   *+9,EXITCT,1       SPACE SUPPR RECD         8  1951  B Z67 W62 1        119   1967   1662
742  7 420         BCE   SEQNCE,EXCOPT,3    OPT-PUNCH + PRNT         8  1959  B 879 W42 3        120    879   1642
743  7 430         A     ONE,KNORCS         BUMP NO OF RECS          7  1967  A W76 S69          120   1676   1269
744  7 440         MCW   TSTEOF+6,MVRTOP+3  BYPASS PRINTING          7  1974  M Z05 J21          120   1905   2121
745  7 450         BCE   BLKFMC,TSTPGM,1    TO BLK FORM CTL          8  1981  B L23 L44 1        120   2323   2344
746  7 460         CS    VARREC,203         OR NEXT RECORD           7  1989  / X18 203          120   1718    203
747  7 470  NOTPNH MCW   KENN,PNCHCD        BYPASS OR SPACE          7  1996  M W93 Z36          121   1693   1936
748  7 480         MCW   KBEE,RMFND-4       SUPPRESS                 7  2003  M W97 Y81          121   1697   1881
749  7 490         B     EXCPVR+8                                   4  2010  B X78              121   1778
750  7 500  SETPNT MCW   ONE,BYPASS                                 7  2014  M W76 W61          121   1676   1661
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SEQ PG LIN  LABEL   OP   OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

751  7 510          CS   332                                         4  2021  / 332              121    332
752  7 520          CS                                               1  2025  /                  121
753  7 530          SW   201                                         4  2026  , 201              121    201
754  7 540  NXTCTR  A    ONE,MVRTOP+3       BUMP REC ADDRESS         7  2030  A W76 J21          122   1676   2121
755  7 550          MCW  MVRTOP+3,*+7                                7  2037  M J21 !50          122   2121   2050
756  7 560          BCE  RECMRK,0-0,|       TEST FOR REC MRK        8  2044  B J90 000 |        122   2190    000
757  7 570          A    ONE,MVRTOP+6       BUMP PRNT ADDRS          7  2052  A W76 J24          122   1676   2124
758  7 580          C    KLINLG,MVRTOP+6    TEST FULL LINE           7  2059  C V85 J24          122   1585   2124
759  7 590          BL   NXTCTR             NEXT CHAR IF NOT         5  2066  B !30 T            123   2030
760  7 600          MCW  BLANK,SWITCH                                7  2071  M W92 L43          123   1692   2343
761  7 610          LCA  MVRTOP+3,LKAHED+6  SET UP TEST              7  2078  L J21 J09          123   2121   2109
762  7 620          A    ONE,LKAHED+6       FOR RECORD MARK          7  2085  A W76 J09          123   1676   2109
763  7 630          MCW  LKAHED+6,EOFTST+6  IN NEXT POSITION         7  2092  M J09 K17          123   2109   2217
764  7 640          CW   LKAHED+4                                    4  2099  ) J07              123   2107
765  7 650  LKAHED  BCE  PICKSW,0-0,|       BRANCH IF RM NXT        8  2103  B K04 000 |        124   2204    000
766  7 660  MOVERC  CW   MVRTOP+1,MVRTOP+4                           7  2111  ) J19 J22          124   2119   2122
767  7 670  MVRTOP  MCW  0-0,0-0            MOVE ONE LINE            7  2118  M 000 000          124    000    000
768  7 680          SW   MVRTOP+1                                    4  2125  , J19              124   2119
769  7 690          BCE  LINEPT,SWITCH,1    OUT IF END RECORD        8  2129  B K34 L43 1        124   2234   2343
770  7 700  LNEOPT  B    SETLNE             NOP-ONE LN / RCD         4  2137  B J62              124   2162
771  7 710          MCW  KENN,MVRTOP        NOP MOVE AND             7  2141  M W93 J18          125   1693   2118
772  7 720          MCW  KENN,SETLNE+7      PRINT INSTRS             7  2148  M W93 J69          125   1693   2169
773  7 730          MCW  KBEE,ONELNE                                 7  2155  M W97 J77          125   1697   2177
774  7 740  SETLNE  LCA  K200,MVRTOP+6                              7  2162  L W88 J24          125   1688   2124
775  7 750          W                                                1  2169  2                  125
776  7 760          MCW  OVFAD5,TPREAD+8                             7  2170  M L36 567          125   2336    567
777  7 770  ONELNE  NOP  NXTCTR                                      4  2177  N !30              126   2030
778  7 780          BCV  NXTPGE             EJECT IF OVERFLO         5  2181  B 425 @            126    425
779  7 790          B    SETPNT             NEXT LINE                4  2186  B !14              126   2014
780  7 800  RECMRK  MCW  MVRTOP+3,EOFTST+6  SET GM TEST ADDR         7  2190  M J21 K17          126   2121   2217
781  7 810          A    KI99,MVRTOP+3                               7  2197  A L42 J21          126   2342   2121
782  7 820  PICKSW  MCW  ONE,SWITCH                                  7  2204  M W76 L43          126   1676   2343
783  7 830  EOFTST  BW   GMFND,0-0          TEST FOR END BLK         8  2211  V K23 000 1        127   2223    000
784  7 840          B    MOVERC             RETURN IF NOT            4  2219  B J11              127   2111
785  7 850  GMFND   MCW  KBEE,NOPBRN        SET BLOCK SWITCH         7  2223  M W97 L02          127   1697   2302
786  7 860          B    MOVERC                                      4  2230  B J11              127   2111
787  7 870  LINEPT  A    ONE,MVRTOP+3                                7  2234  A W76 J21          127   1676   2121
788  7 880          BCE  RECPNT,SKPTST,1                             8  2241  B K66 W05 1        127   2266   1605
789  7 890  NORM    MCW  FCCHAR,RECPNT-1    SET FORM CONTROL         7  2249  M W06 K65          128   1606   2265
790  7 900          BCE  RECPNT,RECPNT-1,/                           8  2256  B K66 K65 /        128   2266   2265
791  7 910          CC   0                                           2  2264  F 0                128
792  7 920  RECPNT  A    ONE,KNORCS         BUMP NO OF RECDS         7  2266  A W76 S69          128   1676   1269
793  7 930          W                       PRINT LAST LINE          1  2273  2                  128
794  7 940          MCW  OVFAD7,TPREAD+8                             7  2274  M L39 567          128   2339    567
795  7 950          MCW  *-6,MVRTOP         RESET MOVE AND           7  2281  M K81 J18          128   2281   2118
796  7 960          MCW  KTWO,SETLNE+7      PRINT INSTRS             7  2288  M W77 J69          129   1677   2169
797  7 970          MCW  KENN,ONELNE                                 7  2295  M W93 J77          129   1693   2177
798  7 980  NOPBRN  NOP  BLKFMC             BR IF END OF BLK         4  2302  N L23              129   2323
799  7 990          BCE  PAGEOP-5,RECPNT-1,A  TEST NEW PAGE          8  2306  B 438 K65 A        129    438   2265
800  8 000          BCV  NXTPGE             EJECT IF OVERFLO         5  2314  B 425 @            129    425
801  8 010          B    VARREC             GET NEXT RECORD          4  2319  B X18              129   1718
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SEQ PG LIN  LABEL   OP   OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

802  8 020  BLKFMC  MCW  KENN,NOPBRN        RESET BLOCK SWTH         7  2323  M W93 L02          130   1693   2302
803  8 030          B    TESTOF             TO BLK FROM CTL          4  2330  B /00              130   1100
804  8 040  OVFAD5  DSA  SETPNT                                      3  2336  !14                130   2014
805  8 050  OVFAD7  DSA  VARREC                                      3  2339  X18                130   1718
806  8 060  KI99    DSA  3999              WAS DCW  @I99@            3  2342  I99                130   3999
807  8 070  SWITCH  DCW  #1                                          1  2343                     130
808  8 080  TSTPGM  DCW  #1                                          1  2344                     130
809  8 090          EX   RUNOUT                                                B ?50              131   3050
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

810                 JOB
811  8 100          ORG   2500                                          2500
812  8 110  ANAL1A  BCE   VARLNE,3154,       BR IF NOT FLDSEL        8  2500  B N83 A54         134   2583   3154
813  8 120          MCW   EXITS1,OUTSEQ-1    MODIFY LINKAGE          7  2508  M Q01 930         134   2801    930
814  8 130          MCW   EXITS1+3,SUPPRS+10  ADDRESSES IN           7  2515  M Q04 |00         134   2804   1000
815  8 140          MCW   EXITS1+6,EXCFND+3  MAIN LINE ROUT         7  2522  M Q07 878         134   2807    878
816  8 150          MCW   EXITS1+9,LINKGE+3                         7  2529  M Q10 |61         134   2810   1061
817  8 160          BCE   FLSSET,TEMP-2,     BR IF NO EDITING        8  2536  B O45 097         135   2645     097
818  8 170          MCW   KG79,RECRD+6       ALTER MAXIMUM           7  2544  M 096 575         135    096    575
819  8 180          MCW   KG79,TOFILT+6      BLOCK LENGTH            7  2551  M 096 755         135    096    755
820  8 190          MCW   KG79,RETRY+26                             7  2558  M 096 /86         135    096   1186
821  8 200          MCW   KG79,BKSPRD+11                            7  2565  M 096 S30         135    096   1230
822  8 210          MCW   KMINLG,KMAXLG                             7  2572  M 093 089         136    093    089
823  8 220          B     FLSSET                                    4  2579  B O45             136   2645
824  8 230  VARLNE  BCE   *+5,31-3,V                               8  2583  B N95 028 V       136   2595    028
825  8 240          B     FLSSET                                    4  2591  B O45             136   2645
826  8 250          MCW   EXITS1+12,OUTSEQ-1  MODIFY LINKAGE        7  2595  M Q13 930         136   2813    930
827  8 260          MCW   EXITS1+15,SUPPRS+10  ADDRESSES IN         7  2602  M Q16 |00         136   2816   1000
828  8 270          MCW   EXITS1+18,EXCFND+3  MAIN LINE ROUT       7  2609  M Q19 878         137   2819    878
829  8 280          MCW   EXITS1+21,LINKGE+3  FOR VAR LGTH          7  2616  M Q22 |61         137   2822   1061
830  8 290          BCE   *+8,3152,          TEST VAR LGTH           8  2623  B O38 A52         137   2638   3152
831  8 300          MCW   KENN,LNEOPT        ONE LINE OPTION         7  2631  M W93 J37         137   1693   2137
832  8 310          A     K200,KLINLG                               7  2638  A W88 V85         137   1688   1585
833  8 320  FLSSET  BCE   *+8,3111,                                 8  2645  B O60 A11         138   2660   3111
834  8 330          MCW   3111,KNOFLS        SET NO OF FILES         7  2653  M A11 S78         138   3111   1278
835  8 340          MZ    KZEROP,KNOFLS                             7  2660  Y W75 S78         138   1675   1278
836  8 350          BCE   STLINL,3115,                              8  2667  B O91 A15         138   2691   3115
837  8 360          MCW   KENN,FLSTST                               7  2675  M W93 333         138   1693    333
838  8 370          MCW   3119,FILE3         STORE SELECTED          7  2682  M A19 S86         139   3119   1286
839  8 380          MCW                      FILE NUMBERS            1  2689  M                 139
840  8 390          MCW                                              1  2690  M                 139
841  8 400  STLINL  SW    3107                                      4  2691  , A07             139   3107
842  8 410          A     3109,KLINLG        SET LINE LENGTH         7  2695  A A09 V85         139   3109   1585
843  8 420  TSTHLT  BCE   *+8,3113,1                                 8  2702  B P17 A13 1       139   2717   3113
844  8 430          MCW   KENN,FILOPT        SET HALT OPTION         7  2710  M W93 676         139   1693    676
845  8 440          BCE   PGNOOP,3146,                              8  2717  B P32 A46         140   2732   3146
846  8 450          MCW   KENN,NXTPGE        SET FIX HEAD OPT        7  2725  M W93 425         140   1693    425
847  8 460  PGNOOP  BCE   PGNOOP+15,3120,                          8  2732  B P47 A20         140   2747   3120
848  8 470          MCW   KBEE,PAGEOP        SET PAGE NO OPT         7  2740  M W97 443         140   1697    443
849  8 480          BCE   TRIPLE-4,3124,                            8  2747  B P69 A24         140   2769   3124
850  8 490          MCW   NXTPGE+4,FCINST    SET BLOCK FORM          7  2755  M 429 W07         141    429   1607
851  8 500          MCW   3124,FCBLKC        CONTROL                 7  2762  M A24 W08         141   3124   1608
852  8 510          CW    FCBLKC                                    4  2769  ) W08             141   1608
853  8 520  TRIPLE  BCE   LDANL2,TEMP,                             8  2773  B P95 099         141   2795    099
854  8 530          MCW   BLANK,RECRD-1      ELIMINATE AUTO-         7  2781  M W92 568         141   1692    568
855  8 540          MCW   KBEE,TPREAD+5      MATIC TROPLE SPC        7  2788  M W97 564         142   1697    564
856  8 550  LDANL2  R     56                 BR TO BOOTSTRAP         4  2795  1 056             142    056
857  8 560  EXITS1  DSA   SETUP1                                    3  2801  X50               142   1750
858  8 570          DSA   PNHNOT                                    3  2804  Z10               142   1910
859  8 580          DSA   EXCPFS                                    3  2807  X68               142   1768
860  8 590          DSA   PTSTUP                                    3  2810  Z21               142   1921
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

861  8 600          DSA   SETUP3                                    3  2813  X59               142   1759
862  8 610          DSA   NOTPNH                                    3  2816  Z96               143   1996
863  8 620          DSA   EXCPVR                                    3  2819  X70               143   1770
864  8 630          DSA   SETPNT                                    3  2822  !14               143   2014
865  8 640          EX    ANAL1A                                          B N00             144   2500
866  8 650          ORG   2500                                          2500
867  8 660  ANAL2   BCE   LDANL3,3103,V      BYP VAR LNGTH           8  2500  B R64 A03 V       147   2964   3103
868  8 670          A     3103,KRECLG        SET RECRD LENGTH        7  2508  A A03 V77         147   3103   1577
869  8 680          MN    KRECLG-3,*+4                               7  2515  D V74 N25         147   1574   2525
870  8 690          MZ    3990,3101                                  7  2522  Y I90 A01         147   3990   3101
871  8 700          MCW   3103,RCLCNV        SET CONV REC LGT        7  2529  M A03 V92         147   3103   1592
872  8 710          A     3106,TRUEBL        SET BLOCKING            7  2536  A A06 W01         148   3106   1601
873  8 720          MCW   TRUEBL,BLKCTR                            7  2543  M W01 V98         148   1601   1598
874  8 730          S     ONE,BLKCTR                                 7  2550  S W76 V98         148   1676   1598
875  8 740          MCW   BLKCTR,KBLKNG                            7  2557  M V98 V95         148   1598   1595
876  8 750  TESTRL  A     KRECLG,PARAM1                              7  2564  A V77 V81         148   1577   1581
877  8 760          S     ONE,BLKCTR                                 7  2571  S W76 V98         149   1676   1598
878  8 770          BWZ   TESTRL,BLKCTR,B                           8  2578  V N64 V98 B       149   2564   1598
879  8 780          C     PARAM1,KMAXLG      ERROR IF BLOCK          7  2586  C V81 089         149   1581    089
880  8 790          BL    ERROR4             LGTH EXCEEDS MAX        5  2593  B R68 T           149   2968
881  8 800          BCE   LDANL3,3154,                              8  2598  B R64 A54         149   2964   3154
882  8 810  FLDSEL  A     3154,KFLDCT        SET NO FIELDS           7  2606  A A54 K90         150   3154   2290
883  8 820          C     KFLDCT,K16                                 7  2613  C K90 101         150   2290    101
884  8 830          BL    ERROR5             ERROR IF OVER 16        5  2620  B R72 T           150   2972
885  8 840          S     ONE,KFLDCT                                 7  2625  S W76 K90         150   1676   2290
886  8 850          LCA   ADDFLD,STORE+6                            7  2632  L M82 Q90         150   2482   2890
887  8 860          A     K11,STORE+6                                7  2639  A X00 Q90         151   1700   2890
888  8 870          LCA   FLDANL,ANAL2+11                          7  2646  L M79 N11         151   2479   2511
889  8 880          MCW   KFLDCT,FLDCTR                           7  2653  M K90 K92         151   2290   2292
890  8 890          LCA   ONE,ANAL2+12                            7  2660  L W76 N12         151   1676   2512
891  8 900          CW    PICKUP+1,STORE+4                           7  2667  ) O75 Q88         151   2675   2888
892  8 910  PICKUP  MCW   3165,ANAL2+11      PICKUP FIELD PRM        7  2674  M A65 N11         152   3165   2511
893  8 920          SW    ANAL2+5,ANAL2+8                            7  2681  , N05 N08         152   2505   2508
894  8 930          MCW   KEMM,FLDANL                              7  2688  M 102 M79         152    102   2479
895  8 940          BWZ   COMLNE,ANAL2+11,2  BR IF MOVE INSTR      8  2695  V P44 N11 2       152   2744   2511
896  8 950          BWZ   ZERSUP,ANAL2+11,B  BR-MV + ZERO SUP      8  2703  V P30 N11 B       152   2730   2511
897  8 960          BWZ   ERROR5,ANAL2+11,S  BR-INCORRECT          8  2711  V R72 N11 S       153   2972   2511
898  8 970          MCW   KENN,FLDANL        SET NOP FOR EDIT        7  2719  M W93 M79         153   1693   2479
899  8 980          B     ZERSUP+7                                   4  2726  B P37             153   2737
900  8 990  ZERSUP  MCW   KZEE,FLDANL        SET Z FOR MCS           7  2730  M 103 M79         153    103   2479
901  9 000          MZ    BLANK,ANAL2+11                             7  2737  Y W92 N11         153   1692   2511
902  9 010  COMLNE  C     ANAL2+11,ANAL2+12  CHECK LINE ORDER        7  2744  C N11 N12         154   2511   2512
903  9 020          BH    ERROR5                                     5  2751  B R72 U           154   2972
904  9 030          BE    ADDCHR             BR IF SAME LINE         5  2756  B P80 S           154   2780
905  9 040  TSTLIN  C     KLINLG,TAPEMD      TEST LINE MAX           7  2761  C V85 K88         154   1585   2288
906  9 050          BH    ERROR5                                     5  2768  B R72 U           154   2972
907  9 060          MCW   C1ADDR,TAPEMD                            7  2773  M W45 K88         154   1645   2288
908  9 070  ADDCHR  A     ANAL2+7,TAPEMD     ADD TO LINE CTR         7  2780  A N07 K88         155   2507   2288
909  9 080          MN    ANAL2+11,FLDANL-4  SET LINE NUMBER        7  2787  D N11 M75         155   2511   2475
910  9 090          MN    ANAL2+11,ANAL2+12                          7  2794  D N11 N12         155   2511   2512
911  9 100          S     ONE,ANAL2+7                                7  2801  S W76 N07         155   1676   2507
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

912   9 110          A     ANAL2+7,ANAL2+10                          7  2808  A N07 N10          155   2507   2510
913   9 120          A     K200,ANAL2+10                             7  2815  A W88 N10          156   1688   2510
914   9 130          MCW   ANAL2+10,FLDANL-1  SET LO PRINT LOC      7  2822  M N10 M78          156   2510   2478
915   9 140          SW    ANAL2+2                                   4  2829  , N02              156   2502
916   9 150          BCE   ZEROS,ANAL2+4,Z    TEST-EMIT ZEROS        8  2833  B R39 N04 Z        156   2939   2504
917   9 160          BCE   *+15,ANAL2+1,                             8  2841  B Q63 N01          156   2863   2501
918   9 170          MN    ANAL2+1,*+4                               7  2849  D N01 Q59          157   2501   2859
919   9 180          MZ    3990,ANAL2+2                              7  2856  Y I90 N02          157   3990   2502
920   9 190          MCW   ANAL2+4,FLDANL-8  SET HO TAPE LOC        7  2863  M N04 M71          157   2504   2471
921   9 200          A     ANAL2+7,ANAL2+4                           7  2870  A N07 N04          157   2507   2504
922   9 210          MCW   ANAL2+4,FLDANL-5  SET LO TAPE LOC        7  2877  M N04 M74          157   2504   2474
923   9 220  STORE   MCW   FLDANL,0-0        STORE FIELD PARS       7  2884  M M79 000          158   2479    000
924   9 230          S     ONE,FLDCTR                                7  2891  S W76 K92          158   1676   2292
925   9 240          BWZ   LDANL3,FLDCTR,K   OUT-NO MORE FLDS       8  2898  V R64 K92 K        158   2964   2292
926   9 250          SW    PICKUP+1,STORE+4                          7  2906  , O75 Q88          158   2675   2888
927   9 260          CS    ANAL2+11                                  4  2913  / N11              158   2511
928   9 270          SW    ANAL2+1                                   4  2917  , N01              158   2501
929   9 280          A     K11,PICKUP+3       BUMP PICKUP +          7  2921  A X00 O77          159   1700   2677
930   9 290          A     K11,STORE+6        STORE ADDRESSES        7  2928  A X00 Q90          159   1700   2890
931   9 300          B     PICKUP-7           GET NEXT FIELD         4  2935  B O67              159   2667
932   9 310  ZEROS   S     ANAL2+7,ANAL2+10                          7  2939  S N07 N10          159   2507   2510
933   9 320          MZ    BLANK,ANAL2+10                            7  2946  Y W92 N10          159   1692   2510
934   9 330          MCW   ANAL2+10,FLDANL-8  SET HO PRINT LOC      7  2953  M N10 M71          159   2510   2471
935   9 340          B     STORE-7            TO STORE               4  2960  B Q77              160   2877
936   9 350  LDANL3  R     56                 BR TO BOOTSTRAP        4  2964  1 056              160    056
937   9 360  ERROR4  H     FLDSEL-8           BLK EXCEEDS MAX        4  2968  . N98              160   2598
938   9 370  ERROR5  H     *-3                FIELD SELN             4  2972  . R72              160   2972
939   9 380          DCW   #1                                        1  2976                     160
940   9 390          EX    ANAL2                                                 B N00          161   2500
941   9 400          ORG   2500                                                   2500
942   9 410  ANAL3   BCE   SEQSET,3103,V      BR FOR FIELD SEL       8  2500  B N77 A03 V        164   2577   3103
943   9 420          BCE   RLVSLL,3154,       OR VAR LGTH            8  2508  B N20 A54          164   2520   3154
944   9 430          B     SEQSET                                    4  2516  B N77              164   2577
945   9 440  RLVSLL  C     KRECLG,KLINLG      COMP REC LGTH VS       7  2520  C V77 V85          164   1577   1585
946   9 450          BH    *+5                LINE LENGTH            5  2527  B N36 U            164   2536
947   9 460          B     SEQSET             OUT IF EQ OR GR        4  2532  B N77              164   2577
948   9 470          MCW   KZEROP,KBLKNG      SET BLKNG TO 001       7  2536  M W75 V95          165   1675   1595
949   9 480          MCW   PARAM1,KRECLG      SET RL TO BLK LG       7  2543  M V81 V77          165   1581   1577
950   9 490          CS    3144               ELIM SEQ,EXC+ FC       4  2550  / A44              165   3144
951   9 500          C     KRECLG,KLINLG      COMP BL VS LL          7  2554  C V77 V85          165   1577   1585
952   9 510          BH    *+5                                       5  2561  B N70 U            165   2570
953   9 520          B     SEQSET                                    4  2566  B N77              165   2577
954   9 530          MCW   KRECLG,KLINLG      SET LL EQ BL           7  2570  M V77 V85          166   1577   1585
955   9 540  SEQSET  BCE   SETFC,3144,        SET SEQ BYP SWTH       8  2577  B O55 A44          166   2655   3144
956   9 550          MCW   KENN,SEQNCE        SET SEQ BYP SWTH       7  2585  M W93 879          166   1693    879
957   9 560          SW    3139,3143                                 7  2592  , A39 A43          166   3139   3143
958   9 570          A     3144,HLDADD        SET HOLD ADDRESS       7  2599  A A44 110          166   3144    110
959   9 580          S     ONE,3144                                  7  2606  S W76 A44          167   1676   3144
960   9 590          A     3144,3142                                 7  2613  A A44 A42          167   3144   3142
961   9 600          MN    3139,*+4                                  7  2620  D A39 O30          167   3139   2630
962   9 610          MZ    3990,3140                                 7  2627  Y I90 A40          167   3990   3140
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

963   9 620          MCW   3142,SEQADD        SET SEQ ADDRESS        7  2634  M A42 W41          167   3142   1641
964   9 630          MCW   HLDADD,CHKSEQ+6    MODIFY SEQUENCE        7  2641  M 110 914          168    110    914
965   9 640          MCW   HLDADD,CHKSEQ+13   CHECK INSTRS           7  2648  M 110 921          168    110    921
966   9 650  SETFC   BCE   RECFC,3121,                               8  2655  B O92 A21          168   2692   3121
967   9 660          MCW   KENN,SKPSUB        SET FIRST CHAR         7  2663  M W93 935          168   1693    935
968   9 670          MCW   ONE,SKPTST         FORM CTL PARAMS        7  2670  M W76 W05          168   1676   1605
969   9 680          BCE   SETEXP,3122,1                             8  2677  B P07 A22 1        169   2707   3122
970   9 690          MCW   KENN,SUPPRS+7      SET SUPPR OPTN         7  2685  M W93 997          169   1693    997
971   9 700  RECFC   BCE   SETEXP,3123,                             8  2692  B P07 A23          169   2707   3123
972   9 710          MCW   3123,FCCHAR        SET FORM CTL           7  2700  M A23 W06          169   3123   1606
973   9 720  SETEXP  BCE   LDANL4,3125,       OUT IF NO EXCPTN       8  2707  B ?33 A25          169   3033   3125
974   9 730          MCW   KENN,SUBRTN+7      SET BYP SWITCH         7  2715  M W93 794          170   1693    794
975   9 740          MN    3125,EXCOPT        STORE + CHECK          7  2722  D A25 W42          170   3125   1642
976   9 750          C     EXCOPT,KTHREE      EXCEPTION OPTION       7  2729  C W42 X07          170   1642   1707
977   9 760          BL    ERROR6                                    5  2736  B ?37 T            170   3037
978   9 770          MCW   3127,CHAR1        STORE FIRST CHAR       7  2741  M A27 W49          170   3127   1649
979   9 780          BCE   C1STR,3129,                               8  2748  B P70 A29          171   2770   3129
980   9 790          MN    3129,*+4                                  7  2756  D A29 P66          171   3129   2766
981   9 800          MZ    3990,3130                                 7  2763  Y I90 A30          171   3990   3130
982   9 810  C1STR   A     3132,C1ADDR        STORE FIRST ADDR       7  2770  A A32 W45          171   3132   1645
983   9 820          BCE   C2BLNK,3134,                             8  2777  B R89 A34          171   2989   3134
984   9 830  STRC2   MCW   3133,CHAR2         STORE SECOND CHAR      7  2785  M A33 W50          172   3133   1650
985   9 840          BCE   C2STR,3135,                             8  2792  B Q14 A35          172   2814   3135
986   9 850          MN    3135,*+4                                  7  2800  D A35 Q10          172   3135   2810
987   9 860          MZ    3990,3136                                 7  2807  Y I90 A36          172   3990   3136
988   9 870  C2STR   A     3138,C2ADDR        STORE SECOND ADDR      7  2814  A A38 W48          172   3138   1648
989   9 880          BWZ   SETY1,3128,B       TEST FIRST CHAR,       8  2821  V ?11 A28 B        173   3011   3128
990   9 890          BWZ   TSTDP1,3128,2      ZONE OR DIGIT          8  2829  V Q52 A28 2        173   2852   3128
991   9 900          BWZ   ERROR6,3128,S      INCORRECT PUNCH        8  2837  V ?37 A28 S        173   3037   3128
992   9 910          MCW   KDEE,TESTC1        SET DIGIT OP CD        7  2845  M 084 833          173    084    833
993   9 920  TSTDP1  MZ    BLANK,3128                                7  2852  Y W92 A28          173   1692   3128
994   9 930          BCE   ANDOR,3128,1       TEST PRESENCE OR       8  2859  B Q86 A28 1        174   2886   3128
995   9 940          BCE   *+5,3128,2         ABSENCE OF CHAR        8  2867  B Q79 A28 2        174   2879   3128
996   9 950          B     ERROR6                                    4  2875  B ?37              174   3037
997   9 960          MCW   ESS,TESTC1+18      SET D MODR S           7  2879  M 112 851          174    112    851
998   9 970  ANDOR   BCE   DISPN2,3126,2      TEST CONNECTIVE        8  2886  B R20 A26 2        174   2920   3126
999   9 980          BCE   *+5,3126,1         AND/OR                 8  2894  B R06 A26 1        175   2906   3126
1000  9 990          B     ERROR6                                    4  2902  B ?37              175   3037
1001 10 000          MCW   KENN,TESTC1+19     CHANGE OP CODE +       7  2906  M W93 852          175   1693    852
1002 10 010          MCW   EXCDSA,TESTC1+17   OPERAND FOR AND        7  2913  M 083 850          175    083    850
1003 10 020  DISPN2  BWZ   SETY2,3134,B       TEST SECOND CHAR,      8  2920  V ?22 A34 B        175   3022   3134
1004 10 030          BWZ   TSTDP2,3134,2      ZONE OR DIGIT          8  2928  V R51 A34 2        176   2951   3134
1005 10 040          BWZ   ERROR6,3134,S      INCORRECT PUNCH        8  2936  V ?37 A34 S        176   3037   3134
1006 10 050          MCW   KDEE,TESTC2        SECOND DIGIT OP CD     7  2944  M 084 856          176    084    856
1007 10 060  TSTDP2  MZ    BLANK,3134                                7  2951  Y W92 A34          176   1692   3134
1008 10 070          BCE   LDANL4,3134,1      TEST PRESENCE OR       8  2958  B ?33 A34 1        176   3033   3134
1009 10 080          BCE   *+5,3134,2         ABSENCE OF CHAR        8  2966  B R78 A34 2        177   2978   3134
1010 10 090          B     ERROR6                                    4  2974  B ?37              177   3037
1011 10 100          MCW   ESS,TESTC2+18      SET D MODR S           7  2978  M 112 874          177    112    874
1012 10 110          B     LDANL4             BRANCH OUT             4  2985  B ?33              177   3033
1013 10 120  C2BLNK  SW    3133               SET SECND CHAR         4  2989  , A33              177   3133
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR B-ADDR

1014 10 130         MCW   3132,3138          SAME AS FIRST             7  2993  M A32 A38          177   3132   3138
1015 10 140         MN    ONE,3126           SET CONNECT AND           7  3000  D W76 A26          178   1676   3126
1016 10 150         B     STRC2                                        4  3007  B P85              178   2785
1017 10 160  SETY1  MCW   KYYY,TESTC1        SET ZONE OP CODE          7  3011  M 085 833          178    085    833
1018 10 170         B     TSTDP1                                       4  3018  B Q52              178   2852
1019 10 180  SETY2  MCW   KYYY,TESTC2        SET ZONE OP CODE          7  3022  M 085 856          178    085    856
1020 10 190         B     TSTDP2                                       4  3029  B R51              178   2951
1021 10 200  LDANL4 R     56                 BR TO BOOTSTRAP           4  3033  1 056              178    056
1022 10 210  ERROR6 H                        EXCEPTION ERROR           1  3037  .                  179
1023 10 220         MCW   KBEE,SUBRTN+7                                7  3038  M W97 794          179   1697    794
1024 10 230         MN    BLANK,EXCOPT                                 7  3045  D W92 W42          179   1692   1642
1025 10 240         B     LDANL4                                       4  3052  B ?33              179   3033
1026 10 250         DCW   #1                                          1  3056                     179
1027 10 260         EX    ANAL3                                                   B N00              180   2500
1028 10 270         ORG   2500                                                     2500
1029 10 280  ANAL4  BCE   STRPRG,3112,D      TO PROD SYS TAPE          8  2500  B R51 A12 D        183   2951   3112
1030 10 290         SW    3145,3997                                    7  2508  , A45 I97          183   3145   3997
1031 10 300         A     3145,TAPADD                                  7  2515  A A45 W04          183   3145   1604
1032 10 310         MCW   3151,ANAL4+3                                7  2522  M A51 N03          183   3151   2503
1033 10 320         LCA   3978,80            SET UP TRAILER            7  2529  L I78 080          183   3978    080
1034 10 330         LCA   3898,3169                                    7  2536  L H98 A69          184   3898   3169
1035 10 340  EDITNG BCE   HEADER,ADDED1,     OUT IF NO EDIT            8  2543  B O53 116          184   2653    116
1036 10 350         SW    LODEDT+1,LODEDT+4                            7  2551  , N87 N90          184   2587   2590
1037 10 360  MODIFY A     ADDED1,LODEDT+3    MODIFY MOVE EDIT          7  2558  A 116 N89          184    116   2589
1038 10 370         A     ADDED1,LODEDT+6    WORDS INSTR               7  2565  A 116 N92          184    116   2592
1039 10 380         LCA   LODEDT+6,3783      STORE EDWD ADDRS          7  2572  L N92 G83          185   2592   3783
1040 10 390         CW    LODEDT+1,LODEDT+4                            7  2579  ) N87 N90          185   2587   2590
1041 10 400  LODEDT LCA   ADDED0,3828        STORE EDIT WORD           7  2586  L 161 H28          185    161   3828
1042 10 410         SW    EDITNG+4,MODIFY+1                            7  2593  , N47 N59          185   2547   2559
1043 10 420         SW    MODIFY+8,MODIFY+18                           7  2600  , N66 N76          185   2566   2576
1044 10 430         A     KTHREE,EDITNG+6    BUMP STORE ADDRS          7  2607  A X07 N49          186   1707   2549
1045 10 440         A     KTHREE,MODIFY+3                              7  2614  A X07 N61          186   1707   2561
1046 10 450         A     KTHREE,MODIFY+10                             7  2621  A X07 N68          186   1707   2568
1047 10 460         A     KTHREE,MODIFY+20                             7  2628  A X07 N78          186   1707   2578
1048 10 470         CW    EDITNG+4,MODIFY+1                            7  2635  ) N47 N59          186   2547   2559
1049 10 480         CW    MODIFY+8,MODIFY+18                           7  2642  ) N66 N76          187   2566   2576
1050 10 490         B     EDITNG             NEXT EDIT WORD            4  2649  B N43              187   2543
1051 10 500  HEADER BCE   FIXHDG,ANAL4+3,    BR IF NO HEADER           8  2653  B Q36 N03          187   2836   2503
1052 10 510         LCA   GRPMRK,3338                                  7  2661  L I97 C38          187   3997   3338
1053 10 520         RTW   3,3178             READ HEADER LABL          8  2668  L %U3 A78 R        187    003   3178
1054 10 530         LCA   FILE4                                       4  2676  L S88              187   1288
1055 10 540         LCA   FILE4,3339                                   7  2680  L S88 C39          188   1288   3339
1056 10 550         BCE   FIXHDG,ANAL4+3,3   BYPASS HEADER             8  2687  B Q36 N03 3        188   2836   2503
1057 10 560         BCE   PNTLAB,ANAL4+3,1   TO PRINT HEADER           8  2695  B P23 N03 1        188   2723   2503
1058 10 570         BCE   PNHLAB,ANAL4+3,2   TO PUNCH HEADER           8  2703  B P65 N03 2        188   2765   2503
1059 10 580         BCE   COMLAB,ANAL4+3,4   TO COMPR HEADER           8  2711  B P95 N03 4        188   2795   2503
1060 10 590         B     ERROR7             INCORRECT DISP            4  2719  B Q35              189   2835
1061 10 600  PNTLAB CS    332                                          4  2723  / 332              189    332
1062 10 610         CS                                                 1  2727  /                  189
1063 10 620         CC    1                                            2  2728  F 1                189
1064 10 630         SW    201                                          4  2730  , 201              189    201
```



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

1065 10 640         SW                                               1  2734  ,                  189
1066 10 650         MCW   3257,280                                   7  2735  M B57 280          189   3257    280
1067 10 660         MCW                                              1  2742  M                  190
1068 10 670         W                        PRINT FIRST 80          1  2743  2                  190
1069 10 680         CS    299                                        4  2744  / 299              190    299
1070 10 690         SW    201                                        4  2748  , 201              190    201
1071 10 700         SW                                               1  2752  ,                  190
1072 10 710         MCW   3337,280                                   7  2753  M C37 280          190   3337    280
1073 10 720         MCW                                              1  2760  M                  190
1074 10 730         W     FIXHDG             PRINT SECND 80          4  2761  2 Q36              191   2836
1075 10 740  PNHLAB CS    180                                        4  2765  / 180              191    180
1076 10 750         SW    101                                        4  2769  , 101              191    101
1077 10 760         SW                                               1  2773  ,                  191
1078 10 770         MCW   3257,180                                   7  2774  M B57 180          191   3257    180
1079 10 780         MCW                                              1  2781  M                  191
1080 10 790         P                        PUNCH FIRST 80          1  2782  4                  191
1081 10 800         MCW   3337,180                                   7  2783  M C37 180          192   3337    180
1082 10 810         MCW                                              1  2790  M                  192
1083 10 820         P     FIXHDG             PUNCH SECND 80          4  2791  4 Q36              192   2836
1084 10 830  COMLAB SW    COMPRE+1,COMPRE+4                          7  2795  , Q24 Q27          192   2824   2827
1085 10 840         A     ANAL4+2,COMPRE+6   SET ADDRESSES           7  2802  A N02 Q29          192   2502   2829
1086 10 850         A     ANAL4+2,COMPRE+3   FOR COMPARE              7  2809  A N02 Q26          192   2502   2826
1087 10 860         CW    COMPRE+1,COMPRE+4                          7  2816  ) Q24 Q27          193   2824   2827
1088 10 870  COMPRE C     3177,3009                                  7  2823  C A77 ?09          193   3177   3009
1089 10 880         BE    FIXHDG             BR IF EQUAL             5  2830  B Q36 S            193   2836
1090 10 890  ERROR7 H                        UNEQUAL COMP            1  2835  .                  193
1091 10 900  FIXHDG CC    1                  EJECT PAGE              2  2836  F 1                193
1092 10 910         S     ONE,TAPADD                                 7  2838  S W76 W04          193   1676   1604
1093 10 920         CS    332                                        4  2845  / 332              193    332
1094 10 930         CS                                               1  2849  /                  194
1095 10 940         BWZ   SETTPE,TAPADD,K    OUT IF NO MORE          8  2850  V R22 W04 K        194   2922   1604
1096 10 950  MCWFIX MCW   3471,332                                   7  2858  M D71 332          194   3471    332
1097 10 960         MCW   3472,FIXFC+1                               7  2865  M D72 Q89          194   3472   2889
1098 10 970         BCE   FIXFC+2,FIXFC+1,                          8  2872  B Q90 Q89          194   2890   2889
1099 10 980         BCE   FIXFC+2,FIXFC+1,/                        8  2880  B Q90 Q89 /        194   2890   2889
1100 10 990  FIXFC  CC    0                  FIX HEAD FORM CT        2  2888  F 0                195
1101 11 000         SW    MCWFIX+1,MCWFIX+8                          7  2890  , Q59 Q66          195   2859   2866
1102 11 010         A     K133,MCWFIX+3                              7  2897  A W91 Q61          195   1691   2861
1103 11 020         A     K133,MCWFIX+10                             7  2904  A W91 Q68          195   1691   2868
1104 11 030         CW    MCWFIX+1,MCWFIX+8                          7  2911  ) Q59 Q66          195   2859   2866
1105 11 040         W     FIXHDG+2           PRINT + RETURN          4  2918  2 Q38              195   2838
1106 11 050  SETTPE LCA   3997,3999                                  7  2922  L I97 I99          196   3997   3999
1107 11 060         RT    3,3996                                     8  2929  M %U3 I96 R        196    003   3996
1108 11 070         BEF   *+6                TEST EOF                5  2937  B R47 K            196   2947
1109 11 080         BSP   3                  BACKSPACE IF NOT        5  2942  U %U3 B            196    003
1110 11 090         B     FLSTST             TO OBJECT PROGRM        4  2947  B 333              196    333
1111 11 100  STRPRG CS    80                                         4  2951  / 080              196    080
1112 11 110         LCA   RETURN+7,13        SET RETURN BRNCH        7  2955  L R94 013          197   2994    013
1113 11 120         LCA                                              1  2962  L                  197
1114 11 130         LCA                                              1  2963  L                  197
1115 11 140         WTW   1,1                                        8  2964  L %U1 001 W        197    001    001
```

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

1116 11 150         WTM   1                                           5  2972  U %U1 M           197    001
1117 11 160         WTM   1                                           5  2977  U %U1 M           197    001
1118 11 170         RWD   1                                           5  2982  U %U1 R           197    001
1119 11 180  RETURN H     ANAL4+8          HALT-CONTINUE              4  2987  . N08             198   2508
1120 11 190         H     *-3                                         4  2991  . R91             198   2991
1121 11 200         DCW   #1                                          1  2995                    198
1122 11 210         END   ANAL4                                                 / N00 080               2500
```



```
SYMBOL   ADDRESS   SYMBOL   ADDRESS   SYMBOL   ADDRESS   SYMBOL   ADDRESS   SYMBOL   ADDRESS   SYMBOL   ADDRESS
ADDCHR   2780: 0   ADDED0   0161: 0   ADDED1   0116: 0   ADDFLD   2482: 0   ADDL2A   3070: 0   ADDL2B   3073: 0
ADDL2F   3076: 0   ADDLGT   1823: 0   ADDLN1   1573: 0   ADDPNL   1816: 0   ADDSTR   0324: 0   ADFIXR   2163: 0
ADLINK   1668: 0   AMPRSD   1701: 0   ANAL1    2500: 0   ANAL1A   2500: 0   ANAL2    2500: 0   ANAL3    2500: 0
ANAL4    2500: 0   ANDOR    2886: 0   ASTRSK   1696: 0   BKSPRD   1219: 0   BLANK    1692: 0   BLKCTR   1598: 0
BLKFMC   2323: 0   BLKTST   2109: 0   BLOCK    2169: 0   BYPASS   1661: 0   C1ADDR   1645: 0   C1STR    2770: 0
C2ADDR   1648: 0   C2BLNK   2989: 0   C2STR    2814: 0   CARRCT   0534: 0   CHAR1    1649: 0   CHAR2    1650: 0
CHKSEQ   0908: 0   CLTRWM   0764: 0   COMLAB   2795: 0   COMLNE   2744: 0   COMPND   1743: 0   COMPRE   2823: 0
COMPRL   1964: 0   COMTLR   0724: 0   DECKSL   3027: 0   DISPN2   2920: 0   EDITAD   2485: 0   EDITNG   2543: 0
EDITRN   2220: 0   EDITST   2897: 0   EDTTST   0327: 0   EDTWDA   0241: 0   EDTWDB   0321: 0   EOFTST   2211: 0
ERREDT   3000: 0   ERROR    2154: 0   ERROR1   3062: 0   ERROR2   3063: 0   ERROR3   3064: 0   ERROR4   2968: 0
ERROR5   2972: 0   ERROR6   3037: 0   ERROR7   2835: 0   ESS      0112: 0   EXCDSA   0083: 0   EXCFND   0875: 0
EXCOPT   1642: 0   EXCPFS   1768: 0   EXCPTN   1761: 0   EXCPVR   1770: 0   EXITCT   1662: 0   EXITS1   2801: 0
FCBLKC   1608: 0   FCCHAR   1606: 0   FCINST   1607: 0   FIELD0   2468: 0   FIELD1   2303: 0   FILE1    1282: 0
FILE2    1284: 0   FILE3    1286: 0   FILE4    1288: 0   FILESL   0365: 0   FILOPT   0676: 0   FINAL    0772: 0
FIXCD1   2655: 0   FIXCD2   2665: 0   FIXFC    2888: 0   FIXHDG   2836: 0   FIXREC   1725: 0   FLDANL   2479: 0
FLDCTR   2292: 0   FLDSEL   2606: 0   FLSELA   1291: 0   FLSREC   1725: 0   FLSSET   2645: 0   FLSTST   0333: 0
FORM     1062: 0   FORMAT   2022: 0   FSQERR   0783: 0   GETCHR   1807: 0   GMFND    2223: 0   GRMFND   1911: 0
GRPMRK   3997: 0   HALTOP   0760: 0   HDPRNT   0469: 0   HEADER   2653: 0   HEADLN   0519: 0   HLDADD   0110: 0
K001     1704: 0   K03      0105: 0   K10      0107: 0   K100     1685: 0   K11      1700: 0   K133     1691: 0
K16      0101: 0   K200     1688: 0   K80      1682: 0   KBEE     1697: 0   KBLKNG   1595: 0   KDEE     0084: 0
KEMM     0102: 0   KENN     1693: 0   KFLDCT   2290: 0   KFOUR    1678: 0   KG79     0096: 0   KG83     1710: 0
KI99     2342: 0   KLINLG   1585: 0   KMAXLG   0089: 0   KMINLG   0093: 0   KNOFLS   1278: 0   KNOLNS   1302: 0
KNORCS   1269: 0   KRECLG   1577: 0   KRRR     1671: 0   KTHREE   1707: 0   KTWO     1677: 0   KYYY     0085: 0
KZEE     0103: 0   KZEROP   1675: 0   LDANL2   2795: 0   LDANL3   2964: 0   LDANL4   3033: 0   LDEDIT   2255: 0
LINE1    1305: 0   LINE1A   1384: 0   LINE1B   1436: 0   LINE2    1438: 0   LINE2A   1517: 0   LINE2B   1569: 0
LINEPT   2234: 0   LINKGE   1058: 0   LKAHED   2103: 0   LNE1FC   1437: 0   LNE2FC   1570: 0   LNEOPT   2137: 0
LNSCTR   1304: 0   LOADPH   1855: 0   LODEDT   2586: 0   MCWFIX   2858: 0   MODIFY   2558: 0   MOVERC   2111: 0
MOVETP   2040: 0   MVLTOP   1958: 0   MVRTOP   2118: 0   NEWCRD   1792: 0   NEWPGE   2135: 0   NOFLSP   1280: 0
NOPBRN   2302: 0   NOPNCH   1910: 0   NORM     2249: 0   NORMAL   2100: 0   NORMFC   2030: 0   NOTPNH   1996: 0
NXTCD    1797: 0   NXTCTR   2030: 0   NXTEDT   2912: 0   NXTFHD   2637: 0   NXTFLE   0614: 0   NXTPGE   0425: 0
NXTRCD   1790: 0   NXTVHD   2752: 0   ONE      1676: 0   ONELNE   2177: 0   OPTNB    1247: 0   OUTSEQ   0931: 0
OVFAD1   2282: 0   OVFAD3   1665: 0   OVFAD4   2160: 0   OVFAD5   2336: 0   OVFAD6   2285: 0   OVFAD7   2339: 0
OVFRT1   1985: 0   OVFRT4   2060: 0   PAGE     1296: 0   PAGENO   1300: 0   PAGEOP   0443: 0   PARAM1   1581: 0
PARAM2   1589: 0   PGNOOP   2732: 0   PICKSW   2204: 0   PICKUP   2674: 0   PNCHCD   1936: 0   PNHLAB   2765: 0
PNHLGT   1656: 0   PNHNOT   1910: 0   PNTLAB   2723: 0   PNTSTP   1921: 0   PRINTH   0483: 0   PRINTR   2117: 0
PRNTLN   2047: 0   PTSTUP   1921: 0   RCLCNV   1592: 0   RECFC    2692: 0   RECLEG   1276: 0   RECMRK   2190: 0
RECPNT   2266: 0   RECRD    0569: 0   REDUND   1146: 0   RETRY    1160: 0   RETURN   2987: 0   RIAREA   2501: 0
RLVSLL   2520: 0   RMBLNK   1706: 0   RMFND    1885: 0   RUNOUT   3050: 0   SEARCH   0397: 0   SELPGM   3004: 0
SEQADD   1641: 0   SEQHLD   1638: 0   SEQNCE   0879: 0   SEQSET   2577: 0   SETEXP   2707: 0   SETFC    2655: 0
SETLNE   2162: 0   SETPNT   2014: 0   SETTPE   2922: 0   SETUP1   1750: 0   SETUP2   1736: 0   SETUP3   1759: 0
SETY1    3011: 0   SETY2    3022: 0   SETZRO   2180: 0   SKCNTL   0964: 0   SKIP     1018: 0   SKPSUB   0935: 0
SKPTST   1605: 0   SLASH    0111: 0   START1   1711: 0   START2   1711: 0   START3   1711: 0   STEDIT   2963: 0
STLINL   2691: 0   STORE    2884: 0   STORFH   2618: 0   STORHL   2827: 0   STORTL   2879: 0   STORVH   2726: 0
STRC2    2785: 0   STRPRG   2951: 0   SUBRTN   0787: 0   SUPPRS   0990: 0   SWITCH   2343: 0   TABLE    3993: 0
TAPADD   1604: 0   TAPELD   0685: 0   TAPEMD   2288: 0   TAPEPN   1852: 0   TAPPNH   1862: 0   TEE      0113: 0
TEMP     0099: 0   TESTC1   0833: 0   TESTC2   0856: 0   TESTEX   0798: 0   TESTOF   1100: 0   TESTRL   2564: 0
TFLDCT   2059: 0   TOFILT   0749: 0   TPELGT   1660: 0   TPREAD   0559: 0   TPTOPN   1845: 0   TRIPLE   2773: 0
TRUEBL   1601: 0   TRYCTR   1261: 0   TSTBLK   2118: 0   TSTCH1   1651: 0   TSTCH2   1652: 0   TSTDP1   2852: 0
TSTDP2   2951: 0   TSTEOF   1899: 0   TSTHLT   2702: 0   TSTLIN   2761: 0   TSTPGM   2344: 0   TSTSSF   1208: 0
TSTTM    0593: 0   VARCD1   2770: 0   VARCD2   2780: 0   VARLNE   2583: 0   VARRCD   3039: 0   VARREC   1718: 0
ZEROS    2939: 0   ZEROST   2205: 0   ZERSUP   2730: 0

UNREFERENCED SYMBOLS
ADDSTR EDTWDA FIELD0 FILE2  LINE1  LINE2  NORM   NORMAL NORMFC SLASH  START2 START3 TABLE  TEE    TESTEX TSTHLT TSTLIN
```