```
CLEAR STORAGE 1      ,008015,019026,030,034041,045,053,0570571026                                    1
CLEAR STORAGE 2      L068112,102106,113/101099/I99,027A070028)027B0010270B0261,001/00111310          2
BOOTSTRAP            ,008015,022029,036040,047054,061068,072/061039              ,0010011040         3

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

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

 101  1 01   000    JOB   1401 AUTOCODER-PASS 1-GENERATE SYSTEM TAPE-VERSION 3
 102  1 02          CTL   630 1
 103  1 03   SYSTP  EQU   (U1                                                            (U1
 104  1 04   CARD   EQU   0                                                             0000
 105  1 05   PRINT  EQU   200                                                           0200
 106  1 06          ORG   87                                                                    0087
 107  1 07   XR1    DCW   000                                                       3   0089                    4
 108  1 08          DC    00                                                        2   0091                    4
 109  1 09   XR2    DCW   000                                                       3   0094                    4
 110  1 10          DC    00                                                        2   0096                    4
 111  1 11   XR3    DCW   000                                                       3   0099                    4
 112  1 12          DC    000000                                                    6   0105                    4
 113  1 13   ZONE   DCW   2SKB                                                      4   0109                    4
 114  1 14   ABIT   EQU   ZONE-2                                                         0107
 115  1 15   NOBIT  EQU   ZONE-3                                                         0106
 116  1 16   XXXX   EQU   0                                                             0000
 117  1 17   *
 118  1 18   * START OF MAIN LINE
 119  1 19   *
 120  1 20          ORG   333                                                                   0333
 121  1 21   START  RWD   SYSTP                                                     5   0333  U (U1 R                 5
 122  1 22          CC    1                                                         2   0338  F 1                     5
 123  1 23          MCW   'GENERATING 1401 AUTOCODER SYSTEM',PRINT+32               7   0340  M ‡83 232               5
 124  1 24          W                                                               1   0347  2                       5
 125  1 25          CC    1                                                         2   0348  F 1                     5
 126  1 26          CS    PRINT+132                                                 4   0350  / 332                   5
 127  1 27          CS                                                              1   0354  /                       5
 128  1 28          MCW   CARD+75,SEQNO=4                                          7   0355  M 075 ‡87               6
 129  1 29   *
 130  1 30   * START OF NEXT BLOCK
 131  1 31   *
 132  1 32   NXTBK  R                                                               1   0362  1                       6
 133  1 33          C     CARD+12,'CONTROL'                                         7   0363  C 012 ‡94               6
 134  1 34          BU    MACRO                                                     5   0370  B 792 /                 6
 135  1 35          BWZ   CKSEQ,CARD+80,2                                           8   0375  V 726 080 2             6
 136  1 36          BCE   EOJOB,CARD+78,9                                          8   0383  B 877 078 9             6
 137  1 37          SW    CARD+21                                                   4   0391  , 021                   7
 138  1 38          ZA    CARD+25,HOLD5=5                                           7   0395  + 025 ‡99               7
 139  1 39          CW    CARD+21                                                   4   0402  ) 021                   7
 140  1 40   *
 141  1 41   * FLOAT ADDRESS TO FIVE CHARACTERS
 142  1 42   *
 143  1 43   FLOAT  BCE   *+5,HOLD5,+                                              8   0406  B 418 ‡99 +             7
 144  1 44          B     COMP1                                                     4   0414  B 429                   7
 145  1 45          ZA    HOLD5-1,HOLD5                                             7   0418  + ‡98 ‡99               7
 146  1 46          B     FLOAT                                                     4   0425  B 406                   7
 147  1 47   *
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SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
148   1 48   * TEST ADDRESS AGAINST HOME ADDRESS
149   1 49   * TO DEVELOP INDEX VALUE
150   1 50   *
151   1 51   COMP1  MZ    NOBIT,HOLD5                              7  0429  Y 106 ‡99           8
152   1 52          S     XR1+2                                    4  0436  S 091               8
153   1 53          C     HOLD5,'01500'                            7  0440  C ‡99 /04           8
154   1 54          BE    DOCOR                                    5  0447  B 538 S             8
155   1 55          BH    SUB1                                     5  0452  B 527 U             8
156   1 56          S     '01500',HOLD5                            7  0457  S /09 ‡99           8
157   1 57          MCW   '16000',WORK5=5                         7  0464  M /14 /19           9
158   1 58   SUB2   S     HOLD5,WORK5                              7  0471  S ‡99 /19           9
159   1 59   *
160   1 60   * CONVERT INDEX VALUE TO 3 DIGIT MACHINE ADDRESS
161   1 61   *
162   1 62   CNVRT  BAV   *+1                                      5  0478  B 483 Z             9
163   1 63          A     '96',WORK5-3                             7  0483  A /21 /16           9
164   1 64          BAV   CNVRT+5                                  5  0490  B 483 Z             9
165   1 65          MZ    WORK5-4,WORK5                            7  0495  Y /15 /19           9
166   1 66          MN    WORK5-3,*+4                              7  0502  D /16 512           10
167   1 67          MZ    ZONE,WORK5-2                             7  0509  Y 109 /17          10
168   1 68          MCW   WORK5,XR1                               7  0516  M /19 089          10
169   1 69          B     DOCOR                                    4  0523  B 538              10
170   1 70   SUB1   MCW   '01500',WORK5                           7  0527  M /26 /19          10
171   1 71          B     SUB2                                     4  0534  B 471              10
172   1 72   *
173   1 73   * READ CONDENSED CARDS
174   1 74   *
175   1 75   DOCOR  R                                             1  0538  1                  10
176   1 76          MCW   '045',XR3                                7  0539  M /29 099          11
177   1 77          MCW   '042',XR2                                7  0546  M /32 094          11
178   1 78          BWZ   CKSEQ,CARD+80,2                          8  0553  V 726 080 2        11
179   1 79          BCE   WTAP1,CARD+68,B                          8  0561  B 675 068 B        11
180   1 80          BCE   SETWM,CARD+40,N                          8  0569  B 596 040 N        11
181   1 81          C     CARD+46,'001'                            7  0577  C 046 /35          12
182   1 82          BE    SETWM                                    5  0584  B 596 S            12
183   1 83          MZ    ABIT,CARD+45                             7  0589  Y 107 045          12
184   1 84   *
185   1 85   * SET RETURN ADDRESS
186   1 86   *
187   1 87   SETWM  MCW   +DOCOR,CARD+71                          7  0596  M /38 071          12
188   1 88          MCW   'B'                                      4  0603  M /39              12
189   1 89   *
190   1 90   * INDEX WORD MARK ADDRESSES
191   1 91   *
192   1 92   COMP2  C     XR2,'063'                                7  0607  C 094 /42          12
193   1 93          BE    CARD+40                                  5  0614  B 040 S            13
194   1 94          A     +7,XR3                                   7  0619  A /43 099          13
195   1 95          A     +7,XR2                                   7  0626  A /43 094          13
196   1 96          C     CARD+1+X2,'040'                          7  0633  C 0-1 /46          13
197   1 97          BE    *+8                                      5  0640  B 652 S            13
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SEQ  PG LIN  LABEL  OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
198   1 98          MZ    ABIT,CARD+X2                 7  0645  Y 107 0-0           13
199   1 99          C     CARD+1+X3,'040'              7  0652  C 0+1 /46           14
200   2 00          BE    COMP2                        5  0659  B 607 S             14
201   2 01          MZ    ABIT,CARD+X3                 7  0664  Y 107 0+0           14
202   2 02          B     COMP2                        4  0671  B 607               14
203   2 03    *
204   2 04    * WRITE CORE ON TAPE
205   2 05    *
206   2 06    WTAP1 LCA   ' ',3998                     7  0675  L /47 198           14
207   2 07          WTW   SYSTP,1500                   8  0682  L (U1 V00 W         14
208   2 08          BER   WTERR                        5  0690  B 973 L             15
209   2 09    *
210   2 10    * CLEAR INPUT AREA
211   2 11    *
212   2 12          MCW   'I99',CLEAR+3                7  0695  M /50 705           15
213   2 13    CLEAR CS    XXXX                         4  0702  / 000               15
214   2 14          SBR   CLEAR+3                      4  0706  H 705               15
215   2 15          C     CLEAR+3,'U99'                7  0710  C 705 /53           15
216   2 16          BU    CLEAR                        5  0717  B 702 /             15
217   2 17          B     NXTBK                        4  0722  B 362               15
218   2 18    *
219   2 19    * CHECK CARD SEQUENCE
220   2 20    *
221   2 21    CKSEQ SBR   SEQXT+3                      4  0726  H 759               16
222   2 22          A     +1,SEQNO                     7  0730  A /54 ‡87           16
223   2 23          C     CARD+75,SEQNO                7  0737  C 075 ‡87           16
224   2 24          MCW   CARD+75,SEQNO                7  0744  M 075 ‡87           16
225   2 25          BU    SEQER                        5  0751  B 760 /             16
226   2 26    SEQXT B     XXXX                         4  0756  B 000               16
227   2 27    *
228   2 28    * CARD SEQUENCE ERROR
229   2 29    *
230   2 30    SEQER MCW   CARD+80,PRINT+80             7  0760  M 080 280           17
231   2 31          CHAIN 6                                                 MACRO
232                 MCW                              1  0767  M                GEN   17
233                 MCW                              1  0768  M                GEN   17
234                 MCW                              1  0769  M                GEN   17
235                 MCW                              1  0770  M                GEN   17
236                 MCW                              1  0771  M                GEN   17
237                 MCW                              1  0772  M                GEN   17
238   2 32          MCW   'SEQUENCE ERROR',PRINT+98   7  0773  M /68 298           18
239   2 33          W                                1  0780  2                   18
240   2 34          H     0,176                      7  0781  . 000 176           18
241   2 35          B     DOSEQ                      4  0788  B 941               18
242   2 36    *
243   2 37    * PROCESS MACRO LIBRARY
244   2 38    *
245   2 39    MACRO NOP   CRDER                      4  0792  N 917               18
246   2 40          C     CARD+20,'HEADR'            7  0796  C 020 /73           18
247   2 41          BU    CRDER                      5  0803  B 917 /             18
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SEQ  PG LIN  LABEL  OP    OPERANDS                                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
248   2 42          BWZ   CKSEQ,CARD+80,2                                         8  0808  V 726 080 2         19
249   2 43          MCW   'B',MACRO                                               7  0816  M /39 792           19
250   2 44          LCA   ' ',CARD+81                                             7  0823  L /47 081           19
251   2 45   *
252   2 46   * WRITE SKELETON INSTRUCTIONS ON TAPE
253   2 47   *
254   2 48   WTAP2  WT    SYSTP,CARD+1                                            8  0830  M (U1 001 W         19
255   2 49          BER   WTERR                                                   5  0838  B 973 L             19
256   2 50          C     CARD+11,'999999'                                        7  0843  C 011 /79           20
257   2 51          BE    WTTM                                                    5  0850  B 868 S             20
258   2 52          R                                                             1  0855  1                   20
259   2 53          BWZ   CKSEQ,CARD+80,2                                         8  0856  V 726 080 2         20
260   2 54          B     WTAP2                                                   4  0864  B 830               20
261   2 55   WTTM   WTM   SYSTP                                                   5  0868  U (U1 M             20
262   2 56          B     NXTBK                                                   4  0873  B 362               20
263   2 57   *
264   2 58   * END OF GENERATION
265   2 59   *
266   2 60   EOJOB  WTM   SYSTP                                                   5  0877  U (U1 M             21
267   2 61          RWD   SYSTP                                                   5  0882  U (U1 R             21
268   2 62          CW    ' '                                                     4  0887  ) /47               21
269   2 63          CS    PRINT+132                                               4  0891  / 332               21
270   2 64          CS                                                            1  0895  /                   21
271   2 65          MCW   '1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1',246    7  0896  M S25 246           21
272   2 66          W                                                             1  0903  2                   21
273   2 67          CC    1                                                       2  0904  F 1                 22
274   2 68   *
275   2 69   * FINAL HALT
276   2 70   *
277   2 71   HALT   H     0,142                                                   7  0906  . 000 142           22
278   2 72          B     HALT                                                    4  0913  B 906               22
279   2 73   *
280   2 74   * MISSING CONTROL CARD
281   2 75   *
282   2 76   CRDER  CS    PRINT+132                                               4  0917  / 332               22
283   2 77          CS                                                            1  0921  /                   22
284   2 78          MCW   'SYSTEM CONTROL CARD MISSING',PRINT+27                  7  0922  M S52 227           22
285   2 79          W                                                             1  0929  2                   22
286   2 80   HALT2  H     0,177                                                   7  0930  . 000 177           23
287   2 81          B     HALT2                                                   4  0937  B 930               23
288   2 82   *
289   2 83   * AFTER SEQUENCE ERROR, CHECK BALANCE OF DECK
290   2 84   *
291   2 85   DOSEQ  R                                                             1  0941  1                   23
292   2 86          BWZ   CKSEQ,CARD+80,2                                         8  0942  V 726 080 2         23
293   2 87          BCE   ENDSQ,CARD+78,9                                         8  0950  B 962 078 9         23
294   2 88          B     DOSEQ                                                   4  0958  B 941               23
295   2 89   ENDSQ  H     0,152                                                   7  0962  . 000 152           23
296   2 90          B     ENDSQ                                                   4  0969  B 962               24
297   2 91   *
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
298  2 92   * WRITE REDUNDANCY ROUTINE
299  2 93   *
300  2 94   WTERR  SBR   WTXT+3                                             4  0973  H ‡36              24
301  2 95          SBR   XR3                                               4  0977  H 099              24
302  2 96          MZ    +9,XR3                                            7  0981  Y S53 099          24
303  2 97          MCW   4000-6+X3,RETRY+7                                 7  0988  M II4 ‡27          24
304  2 98   BSP    BSP   SYSTP                                             5  0995  U (U1 B            24
305  2 99          SKP   SYSTP                                             5  1000  U (U1 E            24
306  3 00          BCE   SUBCT,WTCT-1,1                                    8  1005  B ‡37 S54 1        25
307  3 01          A     +1,WTCT=2                                         7  1013  A /54 S55          25
308  3 02   RETRY  WT    SYSTP,XXXX                                        8  1020  M (U1 000 W        25
309  3 03          BER   BSP                                               5  1028  B 995 L            25
310  3 04   WTXT   B     XXXX                                              4  1033  B 000              25
311  3 05   SUBCT  S     WTCT                                              4  1037  S S55              25
312  3 06          H     0,161                                             7  1041  . 000 161          26
313  3 07          B     RETRY                                             4  1048  B ‡20              26
       123         DCW   'GENERATING 1401 AUTOCODER SYSTEM'                32  1083          LIT      27
       128  SEQNO        =04                                               4  1087          AREA     27
       133               'CONTROL'                                         7  1094          LIT      28
       138  HOLD5        =05                                               5  1099          AREA     28
       153               '01500'                                           5  1104          LIT      28
       156               '01500'                                           5  1109          LIT      28
       157               '16000'                                           5  1114          LIT      28
       157  WORK5        =05                                               5  1119          AREA     28
                         '96'                                              2  1121          LIT      28
       170               '01500'                                           5  1126          LIT      29
                         '045'                                             3  1129          LIT      29
                         '042'                                             3  1132          LIT      29
                         '001'                                             3  1135          LIT      29
       187               +DOCOR                                            3  1138  538     ADCON    29
                         'B'                                               1  1139          LIT      29
                         '063'                                             3  1142          LIT      29
                         +7                                                1  1143          LIT      30
                         '040'                                             3  1146          LIT      30
                         ' '                                               1  1147          LIT      30
                         'I99'                                             3  1150          LIT      30
                         'U99'                                             3  1153          LIT      30
                         +1                                                1  1154          LIT      30
       238               'SEQUENCE ERROR'                                 14  1168          LIT      30
       246               'HEADR'                                           5  1173          LIT      31
       256               '999999'                                          6  1179          LIT      31
       271               '1401 AUTOCODER SYSTEM GENERATED ON TAPE UNIT 1'  46  1225          LIT      33
       284               'SYSTEM CONTROL CARD MISSING'                    27  1252          LIT      33
                         +9                                                1  1253          LIT      33
       307  WTCT         =02                                               2  1255          AREA     33
314  3 08          EX    START                                                   B 333                  34
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
315  3 09          JOB   1401 AUTOCODER-PASS 1 SELECT PROGRAM -VERSION 3
316  3 10          SFX   B
317  3 11  PASSA   EQU   1650                                      B       1650
318  3 12  DOPSA   EQU   1900                                      B       1900
319  3 13  SYSTP   EQU   (U1                                      B       (U1
320  3 14  *
321  3 15  * BRANCH FROM TAPE LOAD BUTTON
322  3 16  *
323  3 17          ORG   1                                         B             0001
324  3 18          B     333                                       B   4   0001  B 333              37
325  3 19          H     *-3                                       B   4   0005  . 005              37
326  3 20  LOADD   DCW   '599'                                     B   3   0011                     37
327  3 21          ORG   87                                        B             0087
328  3 22  XR1     DCW   000                                       B   3   0089                     38
329  3 23          DC    00                                        B   2   0091                     38
330  3 24          DCW   000                                       B   3   0094                     38
331  3 25          DC    00                                        B   2   0096                     38
332  3 26          DCW   000                                       B   3   0099                     38
333  3 27          DC    00                                        B   2   0101                     38
334  3 28  *
335  3 29  * BEGIN PROGRAM
336  3 30  *
337  3 31          ORG   333                                       B             0333
338  3 32          BER   HALT1                                     B   5   0333  B 407 L            39
339  3 33          SW    GMRK1                                     B   4   0338  , 835              39
340  3 34  CLEAR   CS    3999                                      B   4   0342  / 199              39
341  3 35          SBR   CLEAR+3                                  B   4   0346  H 345              39
342  3 36          C     CLEAR+3,'U99'                             B   7   0350  C 345 787          39
343  3 37          BU    CLEAR                                     B   5   0357  B 342 /            39
344  3 38  *
345  3 39  * GET PAST LIBRARY
346  3 40  *
347  3 41  LOOP1   SW    GMRK1                                     B   4   0362  , 835              39
348  3 42          RT    SYSTP,GMRK1-21                            B   8   0366  M (U1 814 R         40
349  3 43          C     GMRK1-2,'999999    HEADR'                 B   7   0374  C 833 802          40
350  3 44          BU    LOOP1                                     B   5   0381  B 362 /            40
351  3 45          SW    GMRK1                                     B   4   0386  , 835              40
352  3 46          RT    SYSTP,GMRK1-1                             B   8   0390  M (U1 834 R         40
353  3 47          BEF   TSTSS                                     B   5   0398  B 418 K            40
354  3 48          B     LOOP1                                     B   4   0403  B 362              41
355  3 49  *
356  3 50  * REDUNDANCY ON TAPE LOAD
357  3 51  *
358  3 52  HALT1   H     0,199                                     B   7   0407  . 000 199          41
359  3 53          B     HALT1                                     B   4   0414  B 407              41
360  3 54  TSTSS   BSS   LIBRN,F                                   B   5   0418  B 521 F            41
361  3 55  *
362  3 56  * RETRIEVE PASS 2 FOR ASSEMBLY RUN
363  3 57  *
364  3 58          SW    GMRK1                                     B   4   0423  , 835              41
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SEQ  PG LIN  LABEL  OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
365   3 59          LCA   GMRK1,3998                   B   7  0427  L 835 I98         41
366   3 60          MCW   +PASSA+13,NOIS2+6           B   7  0434  M 805 658         41
367   3 61   *
368   3 62   * GET PAST LIBRARIAN
369   3 63   *
370   3 64   LOOP2 BCE   LDPSA,BYCT,4                 B   8  0441  B 476 807 4       42
371   3 65          SW    3998                         B   4  0449  , I98             42
372   3 66          RTW   SYSTP,PASSA                  B   8  0453  L (U1 W50 R       42
373   3 67          B     NOISE                        B   4  0461  B 637             42
374   3 68          A     +1,BYCT=1                    B   7  0465  A 806 807         42
375   3 69          B     LOOP2                        B   4  0472  B 441             42
376   3 70   *
377   3 71   * PASS 2 FOUND
378   3 72   *
379   3 73   LDPSA RTW   SYSTP,PASSA                  B   8  0476  L (U1 W50 R       43
380   3 74          B     NOISE                        B   4  0484  B 637             43
381   3 75          BER   RDERR                        B   5  0488  B 676 L           43
382   3 76          CW    GMRK1                        B   4  0493  ) 835             43
383   3 77   CLR    CS    PASSA-1                      B   4  0497  / W49             43
384   3 78          SBR   CLR+3                        B   4  0501  H 500             43
385   3 79          C     CLR+3,LOADD                  B   7  0505  C 500 011         43
386   3 80          BU    CLR                          B   5  0512  B 497 /           44
387   3 81          B     DOPSA                        B   4  0517  B Z00             44
388   3 82   *
389   3 83   * LIBRARY RUN
390   3 84   *
391   3 85   LIBRN MCW   '-13',NOIS2+6                B   7  0521  M 810 658         44
392   3 86          CW    GMRK1                        B   4  0528  ) 835             44
393   3 87          BSS   OUTPT,B                      B   5  0532  B 558 B           44
394   3 88   *
395   3 89   * RETRIEVE UPDATE PROGRAM
396   3 90   *
397   3 91          RTW   SYSTP,2000                   B   8  0537  L (U1 -00 R       44
398   3 92          B     NOISE                        B   4  0545  B 637             44
399   3 93          BER   RDERR                        B   5  0549  B 676 L           45
400   3 94          B     2000                         B   4  0554  B -00             45
401   3 95   *
402   3 96   * RETRIEVE OUTPUT PROGRAM
403   3 97   *
404   3 98   OUTPT RTW   SYSTP,2000                   B   8  0558  L (U1 -00 R       45
405   3 99          B     NOISE                        B   4  0566  B 637             45
406   4 00          SW    GMRK1                        B   4  0570  , 835             45
407   4 01          LCA   GMRK1,3998                   B   7  0574  L 835 I98         45
408   4 02          RTW   SYSTP,2000                   B   8  0581  L (U1 -00 R       46
409   4 03          B     NOISE                        B   4  0589  B 637             46
410   4 04          RTW   SYSTP,2000                   B   8  0593  L (U1 -00 R       46
411   4 05          B     NOISE                        B   4  0601  B 637             46
412   4 06          SW    3998                         B   4  0605  , I98             46
413   4 07          RTW   SYSTP,2000                   B   8  0609  L (U1 -00 R       46
414   4 08          B     NOISE                        B   4  0617  B 637             47
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SEQ  PG LIN  LABEL   OP     OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE   CARD
415   4 09           BER    RDERR                             B   5   0621  B 676 L             47
416   4 10           CW     GMRK1,3998                        B   7   0626  ) 835 I98           47
417   4 11           B      2000                              B   4   0633  B -00               47
418   4 12    *
419   4 13    * TEST FOR NOISE RECORDS
420   4 14    *
421   4 15    NOISE  SBR    NOSXT+3                           B   4   0637  H 675               47
422   4 16           SBR    XR1                               B   4   0641  H 089               47
423   4 17           MZ     +9,XR1                            B   7   0645  Y 811 089           47
424   4 18    NOIS2  BCE    4000-12+X1,0,                     B   8   0652  B IY8 000           48
425   4 19           CHAIN  12                                                       MACRO
426                  BCE                                      B   1   0660  B       GEN         48
427                  BCE                                      B   1   0661  B       GEN         48
428                  BCE                                      B   1   0662  B       GEN         48
429                  BCE                                      B   1   0663  B       GEN         48
430                  BCE                                      B   1   0664  B       GEN         48
431                  BCE                                      B   1   0665  B       GEN         48
432                  BCE                                      B   1   0666  B       GEN         49
433                  BCE                                      B   1   0667  B       GEN         49
434                  BCE                                      B   1   0668  B       GEN         49
435                  BCE                                      B   1   0669  B       GEN         49
436                  BCE                                      B   1   0670  B       GEN         49
437                  BCE                                      B   1   0671  B       GEN         49
438   4 20    NOSXT  B      0                                 B   4   0672  B 000               49
439   4 21    *
440   4 22    * READ REDUNDANCY ROUTINE
441   4 23    *
442   4 24    RDERR  SBR    XR1                               B   4   0676  H 089               50
443   4 25           SBR    RDXT+3                            B   4   0680  H 726               50
444   4 26           MZ     +9,XR1                            B   7   0684  Y 811 089           50
445   4 27           MCW    4000-10+X1,RDTRY+7                B   7   0691  M IZ0 717           50
446   4 28    BSP    BSP    SYSTP                             B   5   0698  U (U1 B             50
447   4 29           MCW    +9,RDCT=1                         B   7   0703  M 811 812           50
448   4 30    RDTRY  RTW    SYSTP,0                           B   8   0710  L (U1 000 R         51
449   4 31           BER    *+5                               B   5   0718  B 727 L             51
450   4 32    RDXT   B      0                                 B   4   0723  B 000               51
451   4 33           BSP    SYSTP                             B   5   0727  U (U1 B             51
452   4 34           S      +1,RDCT                           B   7   0732  S 806 812           51
453   4 35           BWZ    RDTRY,RDCT,B                      B   8   0739  V 710 812 B         51
454   4 36           H      0,191                             B   7   0747  . 000 191           52
455   4 37           MCW    RDTRY+7,*+8                       B   7   0754  M 717 768           52
456   4 38           RTW    SYSTP,0                           B   8   0761  L (U1 000 R         52
457   4 39           BSS    BSP,E                             B   5   0769  B 698 E             52
458   4 40           H      0,111                             B   7   0774  . 000 111           52
459   4 41           B      RDXT                              B   4   0781  B 723               52
460   4 42           LTORG  *                                 B               0785
                     DCW    'U99'                             B   3   0787            LIT       53
      349                   '999999    HEADR'                 B  15   0802            LIT       53
      366                   +PASSA+13                         B   3   0805  W63       ADCON     53
                            +1                                B   1   0806            LIT       53
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		374	BYCT		=01	B	1	0807		AREA	53
					'-13'	B	3	0810		LIT	53
					+9	B	1	0811		LIT	53
		447	RDCT		=01	B	1	0812		AREA	54
461	4	43		DCW	=22	B	22	0834			54
462	4	44	GMRK1	DCW	' '	B	1	0835			54
463	4	45		EX	0	B			B 000		55

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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
464  4 46           JOB   1401 AUTOCODER-PASS 1 RETRIEVE UPDATE -VERSION 3
465  4 47           SFX   R
466  4 48   SYSTP   EQU   (U1                                     R       (U1
467  4 49   LTAPSW  EQU   2725                                    R       2725
468  4 50           ORG   2000                                    R             2000
469  4 51           BSS   LIST,G                                  R    5  2000  B J26 G             58
470  4 52           CW    ENDRT                                   R    4  2005  ) K12               58
471  4 53   START   RTW   SYSTP,1                                 R    8  2009  L (U1 001 R         58
472  4 54           BCE   START,013,                              R    8  2017  B -09 013           58
473  4 55           CHAIN 12                                                                MACRO
474                 BCE                                           R    1  2025  B             GEN   58
475                 BCE                                           R    1  2026  B             GEN   58
476                 BCE                                           R    1  2027  B             GEN   58
477                 BCE                                           R    1  2028  B             GEN   59
478                 BCE                                           R    1  2029  B             GEN   59
479                 BCE                                           R    1  2030  B             GEN   59
480                 BCE                                           R    1  2031  B             GEN   59
481                 BCE                                           R    1  2032  B             GEN   59
482                 BCE                                           R    1  2033  B             GEN   59
483                 BCE                                           R    1  2034  B             GEN   59
484                 BCE                                           R    1  2035  B             GEN   60
485                 BCE                                           R    1  2036  B             GEN   60
486  4 56           BER   RDERR                                   R    5  2037  B -46 L             60
487  4 57           B     333                                     R    4  2042  B 333               60
488  4 58   RDERR   BSP   SYSTP                                   R    5  2046  U (U1 B             60
489  4 59           MCW   +9,RDCT=1                               R    7  2051  M K06 K07           60
490  4 60   RDTRY   RTW   SYSTP,1                                 R    8  2058  L (U1 001 R         60
491  4 61           BER   *+5                                     R    5  2066  B -75 L             61
492  4 62           B     333                                     R    4  2071  B 333               61
493  4 63           BSP   SYSTP                                   R    5  2075  U (U1 B             61
494  4 64           S     +1,RDCT                                 R    7  2080  S K08 K07           61
495  4 65           BWZ   RDTRY,RDCT,B                           R    8  2087  V -58 K07 B         61
496  4 66           H     0,191                                   R    7  2095  . 000 191           61
497  4 67   AGAIN   RTW   SYSTP,1                                 R    8  2102  L (U1 001 R         62
498  4 68           BSS   RDERR,E                                 R    5  2110  B -46 E             62
499  4 69           H     0,111                                   R    7  2115  . 000 111           62
500  4 70           B     333                                     R    4  2122  B 333               62
501  4 71   LIST    SW    ENDRT                                   R    4  2126  , K12               62
502  4 72           LCA   ENDRT,1998                              R    7  2130  L K12 Z98           62
503  4 73           RTW   SYSTP,333                               R    8  2137  L (U1 333 R         63
504  4 74           BEF   GET                                     R    5  2145  B J54 K             63
505  4 75           B     LIST                                    R    4  2150  B J26               63
506  4 76   GET     BSP   SYSTP                                   R    5  2154  U (U1 B             63
507  4 77           BSP   SYSTP                                   R    5  2159  U (U1 B             63
508  4 78           CW    ENDRT,1998                              R    7  2164  ) K12 Z98           63
509  4 79           SW    LTAPSW                                  R    4  2171  , P25               63
510  4 80           MCW   '333',RDTRY+6                          R    7  2175  M K11 -64           64
511  4 81           MCW   '333',AGAIN+6                         R    7  2182  M K11 J08           64
512  4 82           RTW   SYSTP,333                               R    8  2189  L (U1 333 R         64
513  4 83           BER   RDERR                                   R    5  2197  B -46 L             64
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SEQ  PG LIN  LABEL  OP     OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
514   4 84           B      333                          R   4  2202  B 333             64
515   4 85           LTORG  *                            R          2206               
                     DCW    +9                           R   1  2206        LIT     64
        489  RDCT             =01                        R   1  2207        AREA    64
                              +1                         R   1  2208        LIT     65
                              '333'                      R   3  2211        LIT     65
516   4 86  ENDRT    DCW    ' '                          R   1  2212                  65
517   4 87           EX     0                            R          B 000              66
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SEQ  PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
518   4 88          JOB   1401 AUTOCODER-PASS 1 COPY SYSTEM TAPE  -VERSION 3
519   4 89          SFX   U
520   4 90          ORG   87                                        U          0087
521   4 91  XR1     DCW   000                                       U   3  0089                    69
522   4 92          DC    00                                        U   2  0091                    69
523   4 93  XR2     DCW   000                                       U   3  0094                    69
524   4 94          DC    00                                        U   2  0096                    69
525   4 95  XR3     DCW   000                                       U   3  0099                    69
526   4 96          DC    00                                        U   2  0101                    69
527   4 97  SYSTP   EQU   (U1                                      U      (U1
528   4 98  OUTAP   EQU   (U6                                      U      (U6
529   4 99  INPUT   EQU   1500                                      U      1500
530   5 00  *
531   5 01  * BEGIN PROGRAM
532   5 02  *
533   5 03          ORG   333                                       U          0333
534   5 04          SW    ENDUP                                     U   4  0333  , /39             70
535   5 05          RWD   SYSTP                                     U   5  0337  U (U1 R           70
536   5 06          RWD   OUTAP                                     U   5  0342  U (U6 R           70
537   5 07          CC    1                                         U   2  0347  F 1               70
538   5 08          CS    332                                       U   4  0349  / 332             70
539   5 09          CS                                              U   1  0353  /                 70
540   5 10          B     CLEAR                                     U   4  0354  B ≠21             70
541   5 11          BSS   COPY,C                                    U   5  0358  B 525 C           71
542   5 12  *
543   5 13  * RETRIEVE UPDATE PROGRAM
544   5 14  *
545   5 15          RTW   SYSTP,INPUT                               U   8  0363  L (U1 V00 R       71
546   5 16          SBR   XR1                                       U   4  0371  H 089             71
547   5 17          MN    0+X1                                      U   4  0375  D 0≠0             71
548   5 18          SW                                              U   1  0379  ,                 71
549   5 19          DCW   'N0000'                                   U   5  0384                    71
550   5 20          B     NOISE                                     U   4  0385  B 759             71
551   5 21          BER   RDERR                                     U   5  0389  B 798 L           72
552   5 22          WTW   OUTAP,INPUT                              U   8  0394  L (U6 V00 W       72
553   5 23          BER   WTERR                                     U   5  0402  B 928 L           72
554   5 24          B     CLEAR                                     U   4  0407  B ≠21             72
555   5 25  BYPSS   RTW   SYSTP,INPUT                               U   8  0411  L (U1 V00 R       72
556   5 26          C     INPUT+19,'999999    HEADR'                U   7  0419  C V19 ≠70         72
557   5 27          BU    BYPSS                                     U   5  0426  B 411 /           73
558   5 28          RTW   SYSTP,INPUT                               U   8  0431  L (U1 V00 R       73
559   5 29          BEF   GETUP                                     U   5  0439  B 448 K           73
560   5 30          B     BYPSS                                     U   4  0444  B 411             73
561   5 31  GETUP   BCE   LDUPD,BYCT,3                             U   8  0448  B 498 ≠72 3       73
562   5 32          RTW   SYSTP,INPUT                               U   8  0456  L (U1 V00 R       73
563   5 33          DCW   'N00000000000000'                         U  14  0477                    74
564   5 34          B     NOISE                                     U   4  0478  B 759             74
565   5 35          BER   RDERR                                     U   5  0482  B 798 L           74
566   5 36          A     +1,BYCT=1                                 U   7  0487  A ≠71 ≠72         74
567   5 37          B     GETUP                                     U   4  0494  B 448             74
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SEQ  PG LIN  LABEL   OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
568   5 38   LDUPD   CS    199                          U  4  0498  / 199              74
569   5 39           CS    80                           U  4  0502  / 080              75
570   5 40           SW    6,16                         U  7  0506  , 006 016          75
571   5 41           SW    21                           U  4  0513  , 021              75
572   5 42           B     HEAD                         U  4  0517  B N32              75
573   5 43           B     BEGIN                        U  4  0521  B V00              75
574   5 44   *
575   5 45   * COPY SYSTEM
576   5 46   *
577   5 47   COPY    RTW   SYSTP,INPUT                  U  8  0525  L (U1 V00 R        75
578   5 48           SBR   XR1                          U  4  0533  H 089              75
579   5 49           MN    0+X1                         U  4  0537  D 0‡0              76
580   5 50           SW                                 U  1  0541  ,                  76
581   5 51           BEF   EOF                          U  5  0542  B 601 K           76
582   5 52           B     NOISE                        U  4  0547  B 759              76
583   5 53           BER   RDERR                        U  5  0551  B 798 L           76
584   5 54   *
585   5 55   * TEST END OF LIBRARY
586   5 56   *
587   5 57   SWICH   NOP   WTAP1                        U  4  0556  N 580              76
588   5 58           SW    LIBSW                        U  4  0560  , ‡79              76
589   5 59           C     INPUT+10,'999999'            U  7  0564  C V10 ‡78          77
590   5 60           BU    WTAP1                        U  5  0571  B 580 /            77
591   5 61           CW    LIBSW=1                      U  4  0576  ) ‡79              77
592   5 62   *
593   5 63   * WRITE TAPE
594   5 64   *
595   5 65   WTAP1   WTW   OUTAP,INPUT                  U  8  0580  L (U6 V00 W        77
596   5 66           BER   WTERR                        U  5  0588  B 928 L           77
597   5 67   *
598   5 68   * DO NEXT BLOCK
599   5 69   *
600   5 70   REOUT   B     CLEAR                        U  4  0593  B ‡21              77
601   5 71           B     COPY                         U  4  0597  B 525              77
602   5 72   *
603   5 73   * END OF FILE
604   5 74   *
605   5 75   EOF     WTM   OUTAP                        U  5  0601  U (U6 M           78
606   5 76           BW    ISMOR,EOFSW=1                U  8  0606  V 727 ‡80 1       78
607   5 77           B     CLEAR                        U  4  0614  B ‡21              78
608   5 78           LCA   ENDUP,3998                   U  7  0618  L /39 I98         78
609   5 79           BW    ERASE,UPDSW                  U  8  0625  V 637 /26 1       78
610   5 80           B     HALT1                        U  4  0633  B 669              78
611   5 81   *
612   5 82   * ERASE TAPE
613   5 83   *
614   5 84   ERASE   SKP   OUTAP                        U  5  0637  U (U6 E           79
615   5 85           WT    OUTAP,INPUT                  U  8  0642  M (U6 V00 W        79
616   5 86           BCE   HALT1,SKPCT-1,2              U  8  0650  B 669 ‡81 2       79
617   5 87           A     +1,SKPCT=2                   U  7  0658  A ‡71 ‡82         79
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SEQ  PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
618   5 88          B     ERASE                                              U   4  0665  B 637             79
619   5 89   *
620   5 90   * END OF COPY RUN
621   5 91   *
622   5 92   HALT1 MCW   '1401 AUTOCODER SYSTEM COPIED ON TAPE UNIT 6',243   U   7  0669  M /25 243         79
623   5 93         W                                                         U   1  0676  2                80
624   5 94         CC    1                                                   U   2  0677  F 1              80
625   5 95         BW    CPYND,UPDSW=1                                       U   8  0679  V 692 /26 1       80
626   5 96         RWD   OUTAP                                              U   5  0687  U (U6 R           80
627   5 97   CPYND RWD   SYSTP                                              U   5  0692  U (U1 R           80
628   5 98         H     0,122                                               U   7  0697  . 000 122         80
629   5 99         B     CLEAR                                               U   4  0704  B ‡21            80
630   6 00         S     SKPCT                                               U   4  0708  S ‡82            81
631   6 01         MCW   'N',SWICH                                          U   7  0712  M /27 556         81
632   6 02         SW    EOFSW                                               U   4  0719  , ‡80            81
633   6 03         B     COPY                                                U   4  0723  B 525             81
634   6 04   *
635   6 05   * SET UP COPY OF REST OF SYSTEM
636   6 06   *
637   6 07   ISMOR BW    BDEOF,LIBSW                                         U   8  0727  V 750 ‡79 1       81
638   6 08         CW    EOFSW                                               U   4  0735  ) ‡80            81
639   6 09         MCW   'B',SWICH                                          U   7  0739  M /28 556         81
640   6 10         B     REOUT                                               U   4  0746  B 593             82
641   6 11   *
642   6 12   * FALSE END OF FILE
643   6 13   *
644   6 14   BDEOF BSP   OUTAP                                              U   5  0750  U (U6 B            82
645   6 15         B     REOUT                                               U   4  0755  B 593             82
646   6 16   *
647   6 17   * TEST FOR NOISE RECORDS
648   6 18   *
649   6 19   NOISE SBR   NOSXT+3                                            U   4  0759  H 797             82
650   6 20         SBR   XR2                                                 U   4  0763  H 094             82
651   6 21         MZ    +9,XR2                                              U   7  0767  Y /29 094         82
652   6 22   NOIS2 BCE   4000-26+X2,INPUT+13,                               U   8  0774  B IP4 V13         82
653   6 23         CHAIN 12                                                                  MACRO
654                BCE                                                     U   1  0782  B          GEN   83
655                BCE                                                     U   1  0783  B          GEN   83
656                BCE                                                     U   1  0784  B          GEN   83
657                BCE                                                     U   1  0785  B          GEN   83
658                BCE                                                     U   1  0786  B          GEN   83
659                BCE                                                     U   1  0787  B          GEN   83
660                BCE                                                     U   1  0788  B          GEN   83
661                BCE                                                     U   1  0789  B          GEN   84
662                BCE                                                     U   1  0790  B          GEN   84
663                BCE                                                     U   1  0791  B          GEN   84
664                BCE                                                     U   1  0792  B          GEN   84
665                BCE                                                     U   1  0793  B          GEN   84
666   6 24   NOSXT B     0                                                  U   4  0794  B 000             84
667   6 25   *
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SEQ  PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
668   6 26    * READ REDUNDANCY ROUTINE
669   6 27    *
670   6 28    RDERR  SBR   RDXT+3                            U   4  0798  H 855             84
671   6 29           SBR   XR3                               U   4  0802  H 099             85
672   6 30           MZ    +9,XR3                            U   7  0806  Y /29 099         85
673   6 31           MCW   4000-24+X3,RDTRY+7                U   7  0813  M IG6 846         85
674   6 32           MN    RDTRY+3,BSP1+3                    U   7  0820  D 842 830         85
675   6 33    BSP1   BSP   SYSTP                             U   5  0827  U (U1 B           85
676   6 34           MCW   +9,RDCT=1                         U   7  0832  M /29 /30         85
677   6 35    RDTRY  RT    SYSTP,0                           U   8  0839  M (U1 000 R       86
678   6 36           BER   *+5                               U   5  0847  B 856 L           86
679   6 37    RDXT   B     0                                 U   4  0852  B 000             86
680   6 38           MN    RDTRY+3,BSP2+3                    U   7  0856  D 842 866         86
681   6 39    BSP2   BSP   SYSTP                             U   5  0863  U (U1 B           86
682   6 40           S     +1,RDCT                           U   7  0868  S ≠71 /30         86
683   6 41           BWZ   RDTRY,RDCT,B                     U   8  0875  V 839 /30 B       87
684   6 42           MN    RDTRY+3,*+7                       U   7  0883  D 842 896         87
685   6 43           H     0,190                             U   7  0890  . 000 190         87
686   6 44           MCW   RDTRY+7,*+8                       U   7  0897  M 846 911         87
687   6 45           RT    SYSTP,0                           U   8  0904  M (U1 000 R       87
688   6 46           BSS   BSP1,E                            U   5  0912  B 827 E           88
689   6 47           H     0,111                             U   7  0917  . 000 111         88
690   6 48           B     RDXT                              U   4  0924  B 852             88
691   6 49    *
692   6 50    * WRITE REDUNDANCY ROUTINE
693   6 51    *
694   6 52    WTERR  SBR   WTXT+3                            U   4  0928  H 998             88
695   6 53           SBR   XR3                               U   4  0932  H 099             88
696   6 54           MZ    +9,XR3                            U   7  0936  Y /29 099         88
697   6 55           MCW   4000-6+X3,WTTRY+7                 U   7  0943  M II4 989         88
698   6 56           MN    WTTRY+3,BSP3+3                    U   7  0950  D 985 960         89
699   6 57    BSP3   BSP   OUTAP                            U   5  0957  U (U6 B           89
700   6 58           SKP   SYSTP                             U   5  0962  U (U1 E           89
701   6 59           BCE   SUBCT,WTCT-1,1                    U   8  0967  B 999 /31 1       89
702   6 60           A     +1,WTCT=2                         U   7  0975  A ≠71 /32         89
703   6 61    WTTRY  WT    OUTAP,0                           U   8  0982  M (U6 000 W       90
704   6 62           BER   BSP3                              U   5  0990  B 957 L           90
705   6 63    WTXT   B     0                                 U   4  0995  B 000             90
706   6 64    SUBCT  S     WTCT                              U   4  0999  S /32             90
707   6 65           MN    WTTRY+3,*+7                       U   7  1003  D 985 ≠16         90
708   6 66           H     0,160                             U   7  1010  . 000 160         90
709   6 67           B     WTTRY                             U   4  1017  B 982             90
710   6 68    *
711   6 69    * CLEAR OUTPUT AREA
712   6 70    *
713   6 71    CLEAR  SBR   CLRXT+3                          U   4  1021  H ≠55             91
714   6 72           MCW   'I99',CLR+3                       U   7  1025  M /35 ≠35         91
715   6 73    CLR    CS    3999                              U   4  1032  / I99             91
716   6 74           SBR   CLR+3                             U   4  1036  H ≠35             91
717   6 75           C     CLR+3,+INPUT-1                    U   7  1040  C ≠35 /38         91
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SEQ  PG LIN  LABEL  OP     OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
718   6 76           BU     CLR                                                      U   5  1047  B ÷32 /           91
719   6 77    CLRXT  B      0                                                        U   4  1052  B 000             91
720   6 78           LTORG  *                                                        U          1056
        556           DCW    '999999    HEADR'                                     U  15  1070            LIT     92
                             +1                                                      U   1  1071            LIT     92
        566    BYCT          =01                                                     U   1  1072            AREA    92
        589                  '999999'                                                U   6  1078            LIT     92
        591    LIBSW         =01                                                     U   1  1079            AREA    92
        606    EOFSW         =01                                                     U   1  1080            AREA    92
        617    SKPCT         =02                                                     U   2  1082            AREA    92
        622                  '1401 AUTOCODER SYSTEM COPIED ON TAPE UNIT 6'           U  43  1125            LIT     94
        625    UPDSW         =01                                                     U   1  1126            AREA    94
                             'N'                                                     U   1  1127            LIT     94
                             'B'                                                     U   1  1128            LIT     94
                             +9                                                      U   1  1129            LIT     94
        676    RDCT          =01                                                     U   1  1130            AREA    95
        702    WTCT          =02                                                     U   2  1132            AREA    95
                             'I99'                                                   U   3  1135            LIT     95
        717                  +INPUT-1                                                U   3  1138  U99       ADCON   95
721   6 79    ENDUP  DCW    ' '                                                      U   1  1139                    95
722   6 80           EX     0                                                        U          B 000             96
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SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
723   6 81          JOB   1401 AUTOCODER-PASS 1 UPDATE LIBRARY -VERSION 3
724   6 82   IMAGE  EQU   101                                     U       0101
725   6 83   *
726   6 84   * BEGIN UPDATE
727   6 85   *
728   6 86          ORG   INPUT                                   U             1500
729   6 87   BEGIN  RWD   SYSTP                                   U    5  1500  U (U1 R              99
730   6 88          CW    HEDSW,ENDSW                             U    7  1505  ) +91 +98            99
731   6 89          MCW   +IMAGE+13,NOIS2+6                      U    7  1512  M +30 780            99
732   6 90          LCA   ENDUP,IMAGE+80                         U    7  1519  L /39 181            99
733   6 91          RT    SYSTP,IMAGE                             U    8  1526  M (U1 101 R          99
734   6 92          DCW   'N0000000000000'                        U   14  1547                      100
735   6 93          B     NOISE                                   U    4  1548  B 759                100
736   6 94          CS    IMAGE+79                                U    4  1552  / 180                100
737   6 95          B     RDTP                                    U    4  1556  B M17                100
738   6 96   REBEG  B     READ                                    U    4  1560  B L24                100
739   6 97          BW    SERCH,INSW                              U    8  1564  V V84 +73 1          100
740   6 98          BW    SERCH,DELSW                             U    8  1572  V V84 +79 1          101
741   6 99          B     REBEG                                   U    4  1580  B V60                101
742   7 00   *
743   7 01   * SEARCH FOR CORRECT SUBROUTINE
744   7 02   *
745   7 03   SERCH  B     DOCTL                                   U    4  1584  B N94                101
746   7 04          C     11,'999999'                             U    7  1588  C 011 +36            101
747   7 05          BE    CLNUP                                   U    5  1595  B K40 S              101
748   7 06          C     8,NAME=3                                U    7  1600  C 008 +39            101
749   7 07          BE    FOUND                                   U    5  1607  B X30 S              102
750   7 08          BH    QUIT                                    U    5  1612  B P75 U              102
751   7 09          MCW   8,NAME                                  U    7  1617  M 008 +39            102
752   7 10          S     SEQNO                                   U    4  1624  S A67                102
753   7 11   LOOP1  BW    HEADR,HEDSW                             U    8  1628  V W56 +91 1          102
754   7 12          B     RDTP                                    U    4  1636  B M17                102
755   7 13          BW    HEADR,HEDSW                             U    8  1640  V W56 +91 1          103
756   7 14   MORE   B     WTAP2                                   U    4  1648  B M95                103
757   7 15          B     LOOP1                                   U    4  1652  B W28                103
758   7 16   *
759   7 17   * HEADER LOCATED ON TAPE
760   7 18   *
761   7 19   HEADR  BW    PAST,ENDSW                              U    8  1656  V W89 +98 1          103
762   7 20          C     IMAGE+7,NAME                            U    7  1664  C 108 +39            103
763   7 21          BE    FOUND                                   U    5  1671  B X30 S              103
764   7 22          CW    HEDSW                                   U    4  1676  ) +91                104
765   7 23          BL    PAST                                    U    5  1680  B W89 T              104
766   7 24          B     MORE                                    U    4  1685  B W48                104
767   7 25   *
768   7 26   * SUBROUTINE NOT ON TAPE
769   7 27   *
770   7 28   PAST   BSP   SYSTP                                   U    5  1689  U (U1 B              104
771   7 29          CS    IMAGE+79                                U    4  1694  / 180                104
772   7 30          CW    HEDSW                                   U    4  1698  ) +91                104
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SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
773   7 31          BW    UNKWN,DELSW                              U  8  1702  V Q01 +79 1        104
774   7 32          C     22,'  '                                  U  7  1710  C 022 +41          105
775   7 33          BU    UNKWN                                    U  5  1717  B Q01 /            105
776   7 34  BACK    B     PTCTL                                    U  4  1722  B 037              105
777   7 35          B     INSER                                    U  4  1726  B Y06              105
778   7 36  *
779   7 37  * SUBROUTINE FOUND
780   7 38  *
781   7 39  FOUND   C     22,'  '                                  U  7  1730  C 022 +41          105
782   7 40          BU    PARTL                                    U  5  1737  B Y46 /            105
783   7 41  *
784   7 42  * DELETE AND/OR INSERT WHOLE SUBROUTINES
785   7 43  *
786   7 44  ALL     MCW   'DELET',218                              U  7  1742  M +46 218          105
787   7 45          B     PTCTL                                    U  4  1749  B 037              106
788   7 46          S     SEQNO                                    U  4  1753  S A67              106
789   7 47  LOOP2   B     PRINT                                    U  4  1757  B 072              106
790   7 48          B     RDTP                                     U  4  1761  B M17              106
791   7 49          BW    EXIT,HEDSW                               U  8  1765  V X77 +91 1        106
792   7 50          B     LOOP2                                    U  4  1773  B X57              106
793   7 51  EXIT    BSP   SYSTP                                    U  5  1777  U (U1 B           106
794   7 52          CS    IMAGE+79                                 U  4  1782  / 180             107
795   7 53          CW    HEDSW                                    U  4  1786  ) +91             107
796   7 54          BW    REBEG,DELSW                              U  8  1790  V V60 +79 1        107
797   7 55  *
798   7 56  * INSERTION OF WHOLE SUBROUTINE
799   7 57  *
800   7 58          B     DOCTL                                    U  4  1798  B N94              107
801   7 59          B     PTCTL                                    U  4  1802  B 037              107
802   7 60  INSER   S     SEQNO                                    U  4  1806  S A67              107
803   7 61  LOOP3   B     READ                                     U  4  1810  B L24              107
804   7 62          BW    SERCH,INSW                               U  8  1814  V V84 +73 1        108
805   7 63          BW    SERCH,DELSW                              U  8  1822  V V84 +79 1        108
806   7 64          B     DOOUT                                    U  4  1830  B L07              108
807   7 65          B     PRINT                                    U  4  1834  B 072              108
808   7 66          B     WTAP2                                    U  4  1838  B M95              108
809   7 67          B     LOOP3                                    U  4  1842  B Y10              108
810   7 68  *
811   7 69  * DELETE AND/OR INSERT PARTS
812   7 70  *
813   7 71  PARTL   S     XR3+2                                    U  4  1846  S 101              108
814   7 72          BWZ   SOME,21,2                                U  8  1850  V Y81 021 2        109
815   7 73          C     24,'  '                                  U  7  1858  C 024 +41          109
816   7 74          BE    ALL                                      U  5  1865  B X42 S            109
817   7 75          A     +2,XR3                                   U  7  1870  A +47 099         109
818   7 76          SW    23                                       U  4  1877  , 023              109
819   7 77  *
820   7 78  * SCAN FOR VALUES OF OPERANDS
821   7 79  *
822   7 80  SOME    SW    OPSW=1                                   U  4  1881  , +48              109
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SEQ  PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
823   7 81   TEST1  BCE   TWOOP,21+X3,,                      U   8  1885  B Z16 0B1 ,        110
824   7 82          C     22+X3,'  '                         U   7  1893  C 0B2 +41          110
825   7 83          BE    TWOOP                             U   5  1900  B Z16 S            110
826   7 84          A     +1,XR3                            U   7  1905  A +49 099         110
827   7 85          B     TEST1                             U   4  1912  B Y85             110
828   7 86  TWOOP  ZA    20+X3,WK1=4                       U   7  1916  + 0B0 +53         110
829   7 87          A     '0',WK1                           U   7  1923  A +54 +53         111
830   7 88          BCE   NXTOP,21+X3,,                     U   8  1930  B Z42 0B1 ,        111
831   7 89          B     OUT                               U   4  1938  B -08             111
832   7 90  NXTOP  SW    22+X3                             U   4  1942  , 0B2            111
833   7 91          SBR   XR2                               U   4  1946  H 094            111
834   7 92  ADD    A     +1,XR3                            U   7  1950  A +49 099         111
835   7 93          C     22+X3,'  '                         U   7  1957  C 0B2 +41          112
836   7 94          BU    ADD                               U   5  1964  B Z50 /           112
837   7 95          ZA    20+X3,WK2=4                       U   7  1969  + 0B0 +58         112
838   7 96          A     '0',WK2                           U   7  1976  A +54 +58         112
839   7 97          C     WK1,WK2                           U   7  1983  C +53 +58         112
840   7 98          BL    BADST                             U   5  1990  B Q59 T           112
841   7 99          BE    ONOP                              U   5  1995  B K20 S           113
842   8 00  IS2OP  CW    OPSW                              U   4  2000  ) +48            113
843   8 01  CLRWM  CW    1+X2                              U   4  2004  ) 0-1            113
844   8 02  OUT    CW    23                                U   4  2008  ) 023            113
845   8 03          BW    *+8,OPSW                          U   8  2012  V -27 +48 1       113
846   8 04          MCW   'DELET',218                       U   7  2020  M +63 218         113
847   8 05          B     PTCTL                             U   4  2027  B 037            113
848   8 06  *
849   8 07  * SEARCH FOR FIRST STATEMENT
850   8 08  *
851   8 09  COMP   C     WK1,SEQNO                         U   7  2031  C +53 A67         114
852   8 10          BE    GOTIT                             U   5  2038  B -70 S           114
853   8 11          A     +1,SEQNO                          U   7  2043  A +49 A67         114
854   8 12          B     WTAP2                             U   4  2050  B M95            114
855   8 13          B     RDTP                              U   4  2054  B M17            114
856   8 14          BW    NTFND,HEDSW                       U   8  2058  V Q84 +91 1       114
857   8 15          B     COMP                              U   4  2066  B -31            114
858   8 16  *
859   8 17  * FIRST STATEMENT FOUND
860   8 18  *
861   8 19  GOTIT  BW    QINSR,OPSW                        U   8  2070  V J46 +48 1       115
862   8 20  *
863   8 21  * SEARCH FOR SECOND STATEMENT
864   8 22  *
865   8 23  COMP2  B     PRINT                             U   4  2078  B 072            115
866   8 24          B     RDTP                              U   4  2082  B M17            115
867   8 25          C     WK2,SEQNO                         U   7  2086  C +58 A67         115
868   8 26          BH    BSPC                              U   5  2093  B J10 U           115
869   8 27          BW    NTFND,HEDSW                       U   8  2098  V Q84 +91 1       115
870   8 28          B     COMP2                             U   4  2106  B -78            116
871   8 29  *
872   8 30  * SECOND STATEMENT FOUND
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SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
873   8 31    *
874   8 32    BSPC   BSP   SYSTP                                   U  5  2110  U (U1 B            116
875   8 33           CS    IMAGE+79                                U  4  2115  / 180              116
876   8 34           S     +1,SEQNO                                U  7  2119  S +49 A67         116
877   8 35    THRU   BW    LOOP3,DELSW                             U  8  2126  V Y10 +79 1       116
878   8 36           B     DOCTL                                   U  4  2134  B N94             116
879   8 37           B     PTCTL                                   U  4  2138  B 037             116
880   8 38           B     INSR+4                                  U  4  2142  B J77             117
881   8 39    *
882   8 40    * TEST INSERT OR DELETE
883   8 41    *
884   8 42    QINSR  BW    INSR,INSW                               U  8  2146  V J73 +73 1       117
885   8 43           B     PRINT                                   U  4  2154  B 072             117
886   8 44           S     +1,SEQNO                                U  7  2158  S +49 A67         117
887   8 45           CS    IMAGE+79                                U  4  2165  / 180             117
888   8 46           B     THRU                                    U  4  2169  B J26             117
889   8 47    *
890   8 48    * INSERT STATEMENTS
891   8 49    *
892   8 50    INSR   B     WTAP2                                   U  4  2173  B M95             117
893   8 51           B     READ                                    U  4  2177  B L24             118
894   8 52           BW    SERCH,INSW                              U  8  2181  V V84 +73 1       118
895   8 53           BW    SERCH,DELSW                             U  8  2189  V V84 +79 1       118
896   8 54           B     DOOUT                                   U  4  2197  B L07             118
897   8 55           CW    SEQSW=1                                 U  4  2201  ) +64             118
898   8 56           B     PRINT                                   U  4  2205  B 072             118
899   8 57           S     +1,SEQNO                                U  7  2209  S +49 A67         118
900   8 58           B     INSR                                    U  4  2216  B J73             119
901   8 59    ONOP   BW    IS2OP,INSW                              U  8  2220  V -00 +73 1       119
902   8 60           SW    OPSW                                    U  4  2228  , +48             119
903   8 61           B     CLRWM                                   U  4  2232  B -04             119
904   8 62    *
905   8 63    * REPLICATE LIBRARY
906   8 64    *
907   8 65    REPET  B     WTAP2                                   U  4  2236  B M95             119
908   8 66    CLNUP  B     RDTP                                    U  4  2240  B M17             119
909   8 67           B     WTAP2                                   U  4  2244  B M95             119
910   8 68           BW    FINAL,ENDSW                             U  8  2248  V K60 +98 1       120
911   8 69           B     CLNUP                                   U  4  2256  B K40             120
912   8 70    *
913   8 71    * END OF UPDATE - GO TO COPY ROUTINE
914   8 72    *
915   8 73    FINAL  WTM   OUTAP                                   U  5  2260  U (U6 M           120
916   8 74           MCW   +INPUT+13,NOIS2+6                       U  7  2265  M +67 780        120
917   8 75           CW    LIBSW,EOFSW                             U  7  2272  ) ‡79 ‡80        120
918   8 76           CW    UPDSW                                   U  4  2279  ) /26            120
919   8 77           CS    332                                     U  4  2283  / 332            120
920   8 78           CS                                            U  1  2287  /                121
921   8 79           CC    1                                       U  2  2288  F 1              121
922   8 80    BYP1   RT    SYSTP,IMAGE                             U  8  2290  M (U1 101 R       121
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SEQ PG LIN  LABEL  OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
923  8 81          BEF   REOUT                       U   5  2298  B 593 K           121
924  8 82          B     BYP1                        U   4  2303  B K90             121
925  8 83   *
926  8 84   * SET UP INSERT CARD
927  8 85   *
928  8 86   DOOUT  SBR   OUTXT+3                     U   4  2307  H L23             121
929  8 87          MCW   80,IMAGE+79                 U   7  2311  M 080 180         121
930  8 88          MCW                               U   1  2318  M                 122
931  8 89          MCW                               U   1  2319  M                 122
932  8 90   OUTXT  B     0                           U   4  2320  B 000             122
933  8 91   *
934  8 92   * READ CARD SUBROUTINE
935  8 93   *
936  8 94   READ   SBR   CDXT+3                      U   4  2324  H M08             122
937  8 95          BW    RDCD,LSTSW                  U   8  2328  V L40 +85 1       122
938  8 96          B     CLNUP                       U   4  2336  B K40             122
939  8 97   RDCD   R                                 U   1  2340  1                 122
940  8 98          CW    INSW,DELSW                  U   7  2341  ) +73 +79        123
941  8 99          C     20,'INSER'                  U   7  2348  C 020 +72         123
942  9 00          BU    CKDEL                       U   5  2355  B L68 /           123
943  9 01          SW    INSW=1                      U   4  2360  , +73            123
944  9 02          B     CDXT-5                      U   4  2364  B M00             123
945  9 03   CKDEL  C     20,'DELET'                  U   7  2368  C 020 +78         123
946  9 04          BU    CKREP                       U   5  2375  B L88 /           123
947  9 05          SW    DELSW=1                     U   4  2380  , +79            124
948  9 06          B     CDXT-5                      U   4  2384  B M00             124
949  9 07   CKREP  C     20,'REPET'                  U   7  2388  C 020 +84         124
950  9 08          BE    REPET                       U   5  2395  B K36 S           124
951  9 09          BLC   LSTCD                       U   5  2400  B M09 A           124
952  9 10   CDXT   B     0                           U   4  2405  B 000             124
953  9 11   LSTCD  CW    LSTSW=1                     U   4  2409  ) +85            124
954  9 12          B     CDXT                        U   4  2413  B M05             125
955  9 13   *
956  9 14   * READ TAPE SUBROUTINE
957  9 15   *
958  9 16   RDTP   SBR   RTXT+3                      U   4  2417  H M94             125
959  9 17          RT    SYSTP,IMAGE                 U   8  2421  M (U1 101 R       125
960  9 18          SW    IMAGE+80                    U   4  2429  , 181            125
961  9 19          DCW   'N000000000'                U  10  2442                    125
962  9 20          B     NOISE                       U   4  2443  B 759             125
963  9 21          BER   RDERR                       U   5  2447  B 798 L           125
964  9 22          CW    HEDSW,ENDSW                 U   7  2452  ) +91 +98        126
965  9 23          C     IMAGE+19,'HEADR'            U   7  2459  C 120 +90         126
966  9 24          BU    RTXT                        U   5  2466  B M91 /           126
967  9 25          SW    HEDSW=1                     U   4  2471  , +91            126
968  9 26          C     IMAGE+10,'999999'           U   7  2475  C 111 +97         126
969  9 27          BU    RTXT                        U   5  2482  B M91 /           126
970  9 28          SW    ENDSW=1                     U   4  2487  , +98            126
971  9 29   RTXT   B     0                           U   4  2491  B 000             127
972  9 30   *
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SEQ  PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
 973  9 31   * WRITE TAPE SUBROUTINE
 974  9 32   *
 975  9 33   WTAP2  SBR   WT2XT+3                                    U   4  2495  H N31             127
 976  9 34      .   C     IMAGE+79,BLANK                            U   7  2499  C 180 +27         127
 977  9 35          BE    WT2XT                                     U   5  2506  B N28 S           127
 978  9 36          WT    OUTAP,IMAGE                               U   8  2511  M (U6 101 W       127
 979  9 37          BER   WTERR                                     U   5  2519  B 928 L           127
 980  9 38          CS    IMAGE+79                                  U   4  2524  / 180            127
 981  9 39   WT2XT  B     0                                         U   4  2528  B 000            128
 982  9 40   *
 983  9 41   * PRINT HEADING
 984  9 42   *
 985  9 43   HEAD   SBR   HDXT+3                                    U   4  2532  H N93            128
 986  9 44          CS    332                                       U   4  2536  / 332            128
 987  9 45          CS                                              U   1  2540  /                128
 988  9 46          MCW   '1401 AUTOCODER - LIBRARY CHANGES',251    U   7  2541  M A30 251        128
 989  9 47          MCW   'PAGE',275                                U   7  2548  M A34 275        128
 990  9 48          A     +1,PGNO=3                                 U   7  2555  A +49 A37        128
 991  9 49          MCS   PGNO,279                                  U   7  2562  Z A37 279        129
 992  9 50          W                                               U   1  2569  2                129
 993  9 51          CC    K                                         U   2  2570  F K              129
 994  9 52          CS    279                                       U   4  2572  / 279            129
 995  9 53          MCW   'SEQ  LABEL  OP    OPERANDS',227         U   7  2576  M A63 227        129
 996  9 54          W                                               U   1  2583  2                129
 997  9 55          CC    K                                         U   2  2584  F K              129
 998  9 56          CS    228                                       U   4  2586  / 228            130
 999  9 57   HDXT   B     0                                         U   4  2590  B 000            130
1000  9 58   *
1001  9 59   * SET UP CONTROL CARD FOR PRINTING
1002  9 60   *
1003  9 61   DOCTL  SBR   CTLXT+3                                   U   4  2594  H 036            130
1004  9 62          CC    K                                         U   2  2598  F K              130
1005  9 63          CS    332                                       U   4  2600  / 332            130
1006  9 64          CS                                              U   1  2604  /                130
1007  9 65          MCW   72,271                                    U   7  2605  M 072 271        130
1008  9 66          MCW   22,221                                    U   7  2612  M 022 221        131
1009  9 67          MCW   20,218                                    U   7  2619  M 020 218        131
1010  9 68          MCW   11,212                                    U   7  2626  M 011 212        131
1011  9 69   CTLXT  B     0                                         U   4  2633  B 000            131
1012  9 70   *
1013  9 71   * PRINT CONTROL CARD
1014  9 72   *
1015  9 73   PTCTL  SBR   PTCXT+3                                   U   4  2637  H 057            131
1016  9 74          W                                               U   1  2641  2                131
1017  9 75          CC    J                                         U   2  2642  F J              131
1018  9 76          CS    332                                       U   4  2644  / 332            132
1019  9 77          CS                                              U   1  2648  /                132
1020  9 78          BCV   NEWPG                                     U   5  2649  B 058 '           132
1021  9 79   PTCXT  B     0                                         U   4  2654  B 000            132
1022  9 80   *
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 SEQ  PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1023   9 81   * NEW PAGE
1024   9 82   *
1025   9 83   NEWPG  SBR   NEWXT+3                                           U   4  2658  H 071             132
1026   9 84          CC    1                                                 U   2  2662  F 1               132
1027   9 85          B     HEAD                                              U   4  2664  B N32             132
1028   9 86   NEWXT  B     0                                                 U   4  2668  B 000             133
1029   9 87   *
1030   9 88   * PRINT STATEMENTS
1031   9 89   *
1032   9 90   PRINT  SBR   PTXT+3                                            U   4  2672  H P74             133
1033   9 91          SW    220,214                                           U   7  2676  , 220 214         133
1034   9 92          SW    207                                               U   4  2683  , 207             133
1035   9 93          BCE   COMNT,IMAGE+5,*                                   U   8  2687  B P32 106 *       133
1036   9 94          MCW   IMAGE+71,271                                      U   7  2695  M 172 271         133
1037   9 95          MCW   IMAGE+19,218                                      U   7  2702  M 120 218         134
1038   9 96          MCW   IMAGE+10,212                                      U   7  2709  M 111 212         134
1039   9 97   TSTSQ  BW    SEQNC,SEQSW                                       U   8  2716  V P45 +64 1       134
1040   9 98          SW    SEQSW                                             U   4  2724  , +64            134
1041   9 99          B     BUMP                                              U   4  2728  B P53            134
1042  10 00   COMNT  MCW   IMAGE+71,273                                      U   7  2732  M 172 273         134
1043  10 01          MCW                                                     U   1  2739  M                134
1044  10 02          MCW                                                     U   1  2740  M                135
1045  10 03          B     TSTSQ                                             U   4  2741  B P16            135
1046  10 04   SEQNC  MN    SEQNO,204                                         U   7  2745  D A67 204        135
1047  10 05          MCS                                                     U   1  2752  Z                135
1048  10 06   BUMP   A     +1,SEQNO=4                                        U   7  2753  A +49 A67        135
1049  10 07          W                                                       U   1  2760  2                135
1050  10 08          CS    332                                               U   4  2761  / 332            135
1051  10 09          CS                                                      U   1  2765  /                136
1052  10 10          BCV   NEWPG                                             U   5  2766  B 058 '           136
1053  10 11   PTXT   B     0                                                 U   4  2771  B 000            136
1054  10 12   *
1055  10 13   * SEQUENCE ERROR
1056  10 14   *
1057  10 15   QUIT   CS    332                                               U   4  2775  / 332            136
1058  10 16          CS                                                      U   1  2779  /                136
1059  10 17          MCW   'INPUT CARDS OUT OF SEQUENCE - START OVER',240    U   7  2780  M B07 240        136
1060  10 18          W                                                       U   1  2787  2                136
1061  10 19          CC    1                                                 U   2  2788  F 1              137
1062  10 20   HALT2  H     0,133                                             U   7  2790  . 000 133        137
1063  10 21          B     HALT2                                             U   4  2797  B P90            137
1064  10 22   *
1065  10 23   * SUBROUTINE UNKNOWN
1066  10 24   *
1067  10 25   UNKWN  BWZ   ISUNK,21,2                                        U   8  2801  V Q21 021 2       137
1068  10 26          C     24,'  '                                           U   7  2809  C 024 +41         137
1069  10 27          BE    BACK                                              U   5  2816  B X22 S          137
1070  10 28   ISUNK  MCW   'SUBROUTINE UNKNOWN',299                         U   7  2821  M B25 299        138
1071  10 29          W                                                       U   1  2828  2                138
1072  10 30          CC    L                                                 U   2  2829  F L              138
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1073 10 31          CS    299                                        U   4  2831  / 299             138
1074 10 32   LOOP4   B     READ                                       U   4  2835  B L24              138
1075 10 33          BW    SERCH,INSW                                 U   8  2839  V V84 +73 1        138
1076 10 34          BW    SERCH,DELSW                                U   8  2847  V V84 +79 1        138
1077 10 35          B     LOOP4                                      U   4  2855  B Q35              139
1078 10 36   *
1079 10 37   * BAD CONTROL CARD
1080 10 38   *
1081 10 39   BADST  MCW    'BAD STATEMENT',299                        U   7  2859  M B38 299          139
1082 10 40          W                                                U   1  2866  2                 139
1083 10 41          CC    L                                          U   2  2867  F L               139
1084 10 42          CS    299                                        U   4  2869  / 299             139
1085 10 43          CW    1+X2,23                                    U   7  2873  ) 0-1 023          139
1086 10 44          B     LOOP4                                      U   4  2880  B Q35              139
1087 10 45   *
1088 10 46   * STATEMENT DOES NOT EXIST IN SUBROUTINE
1089 10 47   *
1090 10 48   NTFND  MCW    'STATEMENT DOES NOT EXIST',299             U   7  2884  M B62 299          140
1091 10 49          W                                                U   1  2891  2                 140
1092 10 50          CC    L                                          U   2  2892  F L               140
1093 10 51          CS    299                                        U   4  2894  / 299             140
1094 10 52          BW    END99,ENDSW                                U   8  2898  V R10 +98 1        140
1095 10 53          B     LOOP4                                      U   4  2906  B Q35              140
1096 10 54   *
1097 10 55   * END OF LIBRARY REACHED BEFORE ROUTINE FOUND
1098 10 56   *
1099 10 57   END99  MCW    'SUBROUTINE UNKNOWN',299                   U   7  2910  M B80 299          140
1100 10 58          W                                                U   1  2917  2                 141
1101 10 59          CC    L                                          U   2  2918  F L               141
1102 10 60          CS    299                                        U   4  2920  / 299             141
1103 10 61          MCW   'END OF LIBRARY REACHED',222               U   7  2924  M C02 222          141
1104 10 62          W                                                U   1  2931  2                 141
1105 10 63          BSP   SYSTP                                      U   5  2932  U (U1 B           141
1106 10 64          CS    IMAGE+79                                   U   4  2937  / 180             141
1107 10 65   LOOP6  B     READ                                       U   4  2941  B L24              142
1108 10 66          B     LOOP6                                      U   4  2945  B R41              142
1109 10 67          DCW   =50                                        U  50  2998                     144
1110 10 68   BLANK  DC    =29                                        U  29  3027                     145
1111 10 69          LTORG *                                          U          3028
     731            DCW   +IMAGE+13                                  U   3  3030  114         ADCON  145
     746                  '999999'                                   U   6  3036               LIT    145
     748   NAME           =03                                        U   3  3039               AREA   146
                          '  '                                       U   2  3041               LIT    146
     786                  'DELET'                                    U   5  3046               LIT    146
                          +2                                         U   1  3047               LIT    146
     822   OPSW           =01                                        U   1  3048               AREA   146
                          +1                                         U   1  3049               LIT    146
     828   WK1            =04                                        U   4  3053               AREA   146
                          '0'                                        U   1  3054               LIT    147
     837   WK2            =04                                        U   4  3058               AREA   147
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		846			'DELET'	U	5	3063		LIT	147
		897	SEQSW		=01	U	1	3064		AREA	147
		916			+INPUT+13	U	3	3067	V13	ADCON	147
		941			'INSER'	U	5	3072		LIT	147
		943	INSW		=01	U	1	3073		AREA	147
		945			'DELET'	U	5	3078		LIT	148
		947	DELSW		=01	U	1	3079		AREA	148
		949			'REPET'	U	5	3084		LIT	148
		953	LSTSW		=01	U	1	3085		AREA	148
		965			'HEADR'	U	5	3090		LIT	148
		967	HEDSW		=01	U	1	3091		AREA	148
		968			'999999'	U	6	3097		LIT	148
		970	ENDSW		=01	U	1	3098		AREA	149
		988			'1401 AUTOCODER - LIBRARY CHANGES'	U	32	3130		LIT	149
					'PAGE'	U	4	3134		LIT	149
		990	PGNO		=03	U	3	3137		AREA	150
		995			'SEQ LABEL OP OPERANDS'	U	26	3163		LIT	150
		1048	SEQNO		=04	U	4	3167		AREA	150
		1059			'INPUT CARDS OUT OF SEQUENCE - START OVER'	U	40	3207		LIT	152
		1070			'SUBROUTINE UNKNOWN'	U	18	3225		LIT	152
		1081			'BAD STATEMENT'	U	13	3238		LIT	152
		1090			'STATEMENT DOES NOT EXIST'	U	24	3262		LIT	153
		1099			'SUBROUTINE UNKNOWN'	U	18	3280		LIT	154
		1103			'END OF LIBRARY REACHED'	U	22	3302		LIT	155
1112	10	70	3998	DCW	' '	U	1	3998			156
1113	10	71		EX	0	U			B 000		157

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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1114 10 72          JOB   1401 AUTOCODER-PASS 1 OUTPUT LIBRARY -VERSION 3
1115 10 73          SFX   P
1116 10 74   SYSTP  EQU   (U1                                        P       (U1
1117 10 75   XR1    EQU   89                                        P       0089
1118 10 76   *
1119 10 77   * BEGIN PROGRAM
1120 10 78   *
1121 10 79          ORG   2000                                      P            2000
1122 10 80          SW    ENDOT                                     P   4   2000  , +44                160
1123 10 81          LCA   ENDOT,181                                 P   7   2004  L +44 181            160
1124 10 82          CS                                              P   1   2011  /                    160
1125 10 83          CS    80                                        P   4   2012  / 080                160
1126 10 84          SW    6,16                                      P   7   2016  , 006 016            160
1127 10 85          CS    332                                       P   4   2023  / 332                160
1128 10 86          CS                                              P   1   2027  /                    160
1129 10 87          CC    1                                         P   2   2028  F 1                  161
1130 10 88          RWD   SYSTP                                     P   5   2030  U (U1 R              161
1131 10 89          RT    SYSTP,101                                 P   8   2035  M (U1 101 R          161
1132 10 90          CS    180                                       P   4   2043  / 180                161
1133 10 91          SW    106,116                                   P   7   2047  , 106 116            161
1134 10 92          SW    121                                       P   4   2054  , 121                161
1135 10 93          BSS   DOALL,E                                   P   5   2058  B L28 E              161
1136 10 94   *
1137 10 95   * PRINT AND/OR PUNCH SELECTED MACROS
1138 10 96   *
1139 10 97          CW    HDRSW                                     P   4   2063  ) R32                162
1140 10 98   READ   CC    1                                         P   2   2067  F 1                  162
1141 10 99          B     PRTHD                                     P   4   2069  B N59                162
1142 11 00          R                                               P   1   2073  1                    162
1143 11 01          MCW   '2',OPCOD                                 P   7   2074  M Q90 069            162
1144 11 02          C     20,'PRINT'                                P   7   2081  C 020 Q95            162
1145 11 03          BE    SELMC                                     P   5   2088  B J19 S              162
1146 11 04          C     20,'PUNCH'                                P   7   2093  C 020 R00            163
1147 11 05          BU    ERROR                                     P   5   2100  B N06 /              163
1148 11 06   *
1149 11 07   * PUNCH OPTION
1150 11 08   *
1151 11 09          A     +4,OPCOD                                  P   7   2105  A R01 069            163
1152 11 10          MN    +4,OPSAV=1                                P   7   2112  D R01 R02            163
1153 11 11   *
1154 11 12   * SEARCH FOR MACRO
1155 11 13   *
1156 11 14   SELMC  C     8,NAME=3                                  P   7   2119  C 008 R05            163
1157 11 15          BE    TSTLC                                     P   5   2126  B K96 S              163
1158 11 16          MCW   20,218                                    P   7   2131  M 020 218            164
1159 11 17          MCW   11,212                                    P   7   2138  M 011 212            164
1160 11 18          BL    RDTP2                                     P   5   2145  B J85 T              164
1161 11 19          RWD   SYSTP                                     P   5   2150  U (U1 R              164
1162 11 20          LCA   ENDOT,181                                 P   7   2155  L +44 181            164
1163 11 21          RT    SYSTP,101                                 P   8   2162  M (U1 101 R          164
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1164 11 22          CS    180                                        P   4  2170  / 180             165
1165 11 23          SW    106,116                                    P   7  2174  , 106 116         165
1166 11 24          SW    121                                        P   4  2181  , 121             165
1167 11 25  RDTP2   RT    SYSTP,101                                  P   8  2185  M (U1 101 R        165
1168 11 26          B     NOISE                                      P   4  2193  B P67             165
1169 11 27          BER   RDERR                                      P   5  2197  B Q06 L           165
1170 11 28          C     111,'999999'                               P   7  2202  C 111 R11         165
1171 11 29          BE    UNKN                                       P   5  2209  B L05 S           166
1172 11 30          C     120,'HEADR'                                P   7  2214  C 120 R16         166
1173 11 31          BU    RDTP2                                      P   5  2221  B J85 /           166
1174 11 32          C     8,108                                      P   7  2226  C 008 108         166
1175 11 33          BU    RDTP2                                      P   5  2233  B J85 /           166
1176 11 34  *
1177 11 35  * DESIRED MACRO FOUND
1178 11 36  *
1179 11 37          MCW   8,NAME                                     P   7  2238  M 008 R05         166
1180 11 38          CC    K                                          P   2  2245  F K              166
1181 11 39          W                                                P   1  2247  2                167
1182 11 40          S     SEQNO                                      P   4  2248  S R48            167
1183 11 41          B     INSER                                      P   4  2252  B N17            167
1184 11 42          CC    K                                          P   2  2256  F K              167
1185 11 43  PTAGN   B     PRINT                                      P   4  2258  B N81            167
1186 11 44          RT    SYSTP,101                                  P   8  2262  M (U1 101 R        167
1187 11 45          B     NOISE                                      P   4  2270  B P67             167
1188 11 46          BER   RDERR                                      P   5  2274  B Q06 L           168
1189 11 47          C     120,'HEADR'                                P   7  2279  C 120 R21         168
1190 11 48          BU    PTAGN                                      P   5  2286  B K58 /           168
1191 11 49          BSP   SYSTP                                      P   5  2291  U (U1 B           168
1192 11 50  *
1193 11 51  * TEST END OF RUN
1194 11 52  *
1195 11 53  TSTLC   BLC   EOJOB                                      P   5  2296  B M54 A           168
1196 11 54          B     READ                                       P   4  2301  B -67             168
1197 11 55  *
1198 11 56  * MACRO NOT ON TAPE
1199 11 57  *
1200 11 58  UNKN    MCW   'UNKNOWN',299                              P   7  2305  M R28 299         168
1201 11 59          W                                                P   1  2312  2                169
1202 11 60          CS    299                                        P   4  2313  / 299            169
1203 11 61          MCW   '999',NAME                                 P   7  2317  M R31 R05         169
1204 11 62          B     TSTLC                                      P   4  2324  B K96            169
1205 11 63  *
1206 11 64  * PRINT AND/OR PUNCH ALL OR PRINT HEADERS ONLY
1207 11 65  *
1208 11 66  DOALL   BSS   SETUP,D                                    P   5  2328  B L60 D           169
1209 11 67          CW    HDRSW=1                                    P   4  2333  ) R32             169
1210 11 68          BSS   *+5,G                                      P   5  2337  B L46 G           169
1211 11 69          B     SETUP                                      P   4  2342  B L60             170
1212 11 70  *
1213 11 71  * PUNCH ALL
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 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1214 11 72   *
1215 11 73          A     +4,OPCOD                          P   7   2346  A R01 069         170
1216 11 74          MN    +4,OPSAV                          P   7   2353  D R01 R02         170
1217 11 75   SETUP  B     HEAD1                             P   4   2360  B P19             170
1218 11 76          CW    HDSW1=1                           P   4   2364  ) R33             170
1219 11 77          B     PRTHD                             P   4   2368  B N59             170
1220 11 78   RDTP   RT    SYSTP,101                         P   8   2372  M (U1 101 R       170
1221 11 79          B     NOISE                             P   4   2380  B P67             171
1222 11 80          BER   RDERR                             P   5   2384  B Q06 L           171
1223 11 81          C     111,'999999'                      P   7   2389  C 111 R39         171
1224 11 82          BE    EOJOB                             P   5   2396  B M54 S           171
1225 11 83          C     120,'HEADR'                       P   7   2401  C 120 R44         171
1226 11 84          BU    DOPNT                             P   5   2408  B M35 /           171
1227 11 85          B     INSER                             P   4   2413  B N17             171
1228 11 86          CC    K                                 P   2   2417  F K               172
1229 11 87          SBR   PRTXT+3,*+6                        P   7   2419  H 083 M31         172
1230 11 88          BCV   NEWPG                             P   5   2426  B 097 '           172
1231 11 89          S     SEQNO=4                           P   4   2431  S R48             172
1232 11 90   DOPNT  B     PRINT                             P   4   2435  B N81             172
1233 11 91          SW    106,116                           P   7   2439  , 106 116         172
1234 11 92          SW    121                               P   4   2446  , 121             172
1235 11 93          B     RDTP                              P   4   2450  B L72             173
1236 11 94   *
1237 11 95   * END OF JOB
1238 11 96   *
1239 11 97   EOJOB  CS    332                               P   4   2454  / 332             173
1240 11 98          CS                                      P   1   2458  /                 173
1241 11 99          CC    K                                 P   2   2459  F K               173
1242 12 00          MCW   'END OF LIBRARY',214              P   7   2461  M R62 214         173
1243 12 01          W                                       P   1   2468  2                 173
1244 12 02          CC    1                                 P   2   2469  F 1               173
1245 12 03          CS    180                               P   4   2471  / 180             174
1246 12 04          BCE   CLRPH,OPSAV,4                     P   8   2475  B M99 R02 4       174
1247 12 05   RWD    RWD   SYSTP                             P   5   2483  U (U1 R           174
1248 12 06   HALT   H     0,155                             P   7   2488  . 000 155         174
1249 12 07          B     HALT                              P   4   2495  B M88             174
1250 12 08   CLRPH  P                                       P   1   2499  4                 174
1251 12 09          SS    8                                 P   2   2500  K 8               174
1252 12 10          B     RWD                               P   4   2502  B M83             175
1253 12 11   *
1254 12 12   * INCORRECT INPUT CARD
1255 12 13   *
1256 12 14   ERROR  H     0,144                             P   7   2506  . 000 144         175
1257 12 15          B     TSTLC                             P   4   2513  B K96             175
1258 12 16   INSER  SBR   INSXT+3                           P   4   2517  H N58             175
1259 12 17          MCW   '     ',105                       P   7   2521  M R67 105         175
1260 12 18          MCW   'INSER',120                       P   7   2528  M R72 120         175
1261 12 19          BCE   *+5,OPSAV,4                       P   8   2535  B N47 R02 4       176
1262 12 20          B     *+2                               P   4   2543  B N48             176
1263 12 21          P                                       P   1   2547  4                 176
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1264 12 22          MCW   'HEADR',120                             P   7  2548  M R77 120          176
1265 12 23   INSXT  B     0                                       P   4  2555  B 000              176
1266 12 24   *
1267 12 25   * PRINT HEADING
1268 12 26   *
1269 12 27   PRTHD  SBR   HDXT+3                                   P   4  2559  H N80              176
1270 12 28          MCW   'SEQ  LABEL  OP    OPERANDS',227        P   7  2563  M +03 227          176
1271 12 29          W                                             P   1  2570  2                 177
1272 12 30          CC    K                                       P   2  2571  F K               177
1273 12 31          CS    228                                     P   4  2573  / 228             177
1274 12 32   HDXT   B     0                                       P   4  2577  B 000              177
1275 12 33   *
1276 12 34   * PRINT STATEMENT
1277 12 35   *
1278 12 36   PRINT  SBR   PRTXT+3                                 P   4  2581  H 083              177
1279 12 37          C     120,'HEADR'                             P   7  2585  C 120 +08          177
1280 12 38          BE    DOHDR                                   P   5  2592  B 005 S            177
1281 12 39          BW    CLR,HDRSW                               P   8  2597  V 070 R32 1        178
1282 12 40   DOHDR  CS    332                                     P   4  2605  / 332             178
1283 12 41          CS                                            P   1  2609  /                 178
1284 12 42          BCE   COMNT,106,*                            P   8  2610  B 084 106 *        178
1285 12 43          MCW   172,271                                 P   7  2618  M 172 271          178
1286 12 44          MCW   120,218                                 P   7  2625  M 120 218          178
1287 12 45          MCW   111,212                                 P   7  2632  M 111 212          179
1288 12 46   DOSEQ  MN    SEQNO,204                               P   7  2639  D R48 204          179
1289 12 47          MCS                                           P   1  2646  Z                 179
1290 12 48          MN    SEQNO,104                               P   7  2647  D R48 104          179
1291 12 49          MCW                                           P   1  2654  M                 179
1292 12 50          A     +1,SEQNO                                P   7  2655  A +09 R48         179
1293 12 51          MCW   ' ',105                                 P   7  2662  M +10 105          179
1294 12 52   OPCOD  W                                             P   1  2669  2                 180
1295 12 53   CLR    CS    332                                     P   4  2670  / 332             180
1296 12 54          CS                                            P   1  2674  /                 180
1297 12 55          BCV   NEWPG                                   P   5  2675  B 097 '            180
1298 12 56   PRTXT  B     0                                       P   4  2680  B 000              180
1299 12 57   COMNT  MCW   172,273                                 P   7  2684  M 172 273          180
1300 12 58          MCW                                           P   1  2691  M                 180
1301 12 59          MCW                                           P   1  2692  M                 181
1302 12 60          B     DOSEQ                                   P   4  2693  B 039              181
1303 12 61   *
1304 12 62   * START NEW PAGE
1305 12 63   *
1306 12 64   NEWPG  CC    1                                       P   2  2697  F 1               181
1307 12 65          BW    *+5,HDSW1                               P   8  2699  V P11 R33 1        181
1308 12 66          B     HEAD1                                   P   4  2707  B P19              181
1309 12 67          B     PRTHD                                   P   4  2711  B N59              181
1310 12 68          B     PRTXT                                   P   4  2715  B 080              181
1311 12 69   *
1312 12 70   * PRINT MAIN HEADING
1313 12 71   *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1314 12 72   HEAD1  SBR   HD2XT+3                                   P   4  2719  H P66             182
1315 12 73          CS    332                                       P   4  2723  / 332             182
1316 12 74          CS                                              P   1  2727  /                 182
1317 12 75          MCW   '1401 AUTOCODER - LIBRARY',243           P   7  2728  M +34 243          182
1318 12 76          MCW   'PAGE',275                                P   7  2735  M +38 275          182
1319 12 77          A     +1,PGNO=3                                 P   7  2742  A +09 +41          182
1320 12 78          MCS   PGNO,279                                  P   7  2749  Z +41 279          182
1321 12 79          W                                               P   1  2756  2                 183
1322 12 80          CC    L                                         P   2  2757  F L               183
1323 12 81          CS    299                                       P   4  2759  / 299             183
1324 12 82   HD2XT  B     0                                         P   4  2763  B 000             183
1325 12 83   *
1326 12 84   * TEST FOR NOISE RECORDS
1327 12 85   *
1328 12 86   NOISE  SBR   NOSXT+3                                   P   4  2767  H Q05             183
1329 12 87          SBR   XR1                                       P   4  2771  H 089             183
1330 12 88          MZ    +9,XR1                                    P   7  2775  Y +42 089          183
1331 12 89          BCE   4000-12+X1,113,                           P   8  2782  B IY8 113          184
1332 12 90          CHAIN 12                                                                 MACRO
1333                BCE                                             P   1  2790  B           GEN   184
1334                BCE                                             P   1  2791  B           GEN   184
1335                BCE                                             P   1  2792  B           GEN   184
1336                BCE                                             P   1  2793  B           GEN   184
1337                BCE                                             P   1  2794  B           GEN   184
1338                BCE                                             P   1  2795  B           GEN   184
1339                BCE                                             P   1  2796  B           GEN   185
1340                BCE                                             P   1  2797  B           GEN   185
1341                BCE                                             P   1  2798  B           GEN   185
1342                BCE                                             P   1  2799  B           GEN   185
1343                BCE                                             P   1  2800  B           GEN   185
1344                BCE                                             P   1  2801  B           GEN   185
1345 12 91   NOSXT  B     0                                         P   4  2802  B 000             185
1346 12 92   *
1347 12 93   * READ REDUNDANCY ROUTINE
1348 12 94   *
1349 12 95   RDERR  SBR   RDXT+3                                    P   4  2806  H Q38             186
1350 12 96   BSP    BSP   SYSTP                                     P   5  2810  U (U1 B           186
1351 12 97          MCW   +9,RDCT=1                                 P   7  2815  M +42 +43          186
1352 12 98   RDTRY  RT    SYSTP,101                                 P   8  2822  M (U1 101 R       186
1353 12 99          BER   *+5                                       P   5  2830  B Q39 L           186
1354 13 00   RDXT   B     0                                         P   4  2835  B 000             186
1355 13 01          BSP   SYSTP                                     P   5  2839  U (U1 B           186
1356 13 02          S     +1,RDCT                                   P   7  2844  S +09 +43         187
1357 13 03          BWZ   RDTRY,RDCT,B                             P   8  2851  V Q22 +43 B       187
1358 13 04          H     0,191                                     P   7  2859  . 000 191         187
1359 13 05          RT    SYSTP,101                                 P   8  2866  M (U1 101 R       187
1360 13 06          BSS   BSP,E                                     P   5  2874  B Q10 E           187
1361 13 07          H     0,111                                     P   7  2879  . 000 111         188
1362 13 08          B     RDXT                                      P   4  2886  B Q35             188
1363 13 09          LTORG *                                         P            2890
```

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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
                   DCW   '2'                                     P   1  2890               LIT   188
      1144                '1PRINT'                              P   5  2895               LIT   188
      1146                'PUNCH'                               P   5  2900               LIT   188
                          +4                                    P   1  2901               LIT   188
      1152  OPSAV         =01                                   P   1  2902               AREA  188
      1156  NAME          =03                                   P   3  2905               AREA  189
      1170                '999999'                              P   6  2911               LIT   189
      1172                'HEADR'                               P   5  2916               LIT   189
      1189                'HEADR'                               P   5  2921               LIT   189
      1200                'UNKNOWN'                             P   7  2928               LIT   189
                          '999'                                 P   3  2931               LIT   189
      1209  HDRSW         =01                                   P   1  2932               AREA  189
      1218  HDSW1         =01                                   P   1  2933               AREA  190
      1223                '999999'                              P   6  2939               LIT   190
      1225                'HEADR'                               P   5  2944               LIT   190
      1231  SEQNO         =04                                   P   4  2948               AREA  190
      1242                'END OF LIBRARY'                      P  14  2962               LIT   190
      1259                '     '                               P   5  2967               LIT   190
      1260                'INSER'                               P   5  2972               LIT   191
      1264                'HEADR'                               P   5  2977               LIT   191
      1270                'SEQ  LABEL  OP    OPERANDS'          P  26  3003               LIT   191
      1279                'HEADR'                               P   5  3008               LIT   192
                          +1                                    P   1  3009               LIT   192
                          ' '                                   P   1  3010               LIT   192
      1317                '1401 AUTOCODER - LIBRARY'            P  24  3034               LIT   192
                          'PAGE'                                P   4  3038               LIT   192
      1319  PGNO          =03                                   P   3  3041               AREA  192
                          +9                                    P   1  3042               LIT   192
      1351  RDCT          =01                                   P   1  3043               AREA  193
1364 13 10  ENDOT  DCW    ' '                                   P   1  3044                     193
1365 13 11         EX     0                                     P                B 000           194
1366 13 12         END    0                                     P                / 000 080       197
```

3 ERRORS

```
CLEAR STORAGE 1      ,008015,019026,030,034041,045,053,0570571026                                    1
CLEAR STORAGE 2      L068112,102106,113/101099/I99,027A070028)027B001027080261,001/00111310          2
BOOTSTRAP            ,008015,022029,036040,047054,061068,072/061039              ,0010011040         3

                              1401 AUTOCODER-PASS 2-PROCESS IOCS-MAIN 2 -VERSION 3       3722L                PAGE     1

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

 101  1 01   001    JOB   1401 AUTOCODER-PASS 2-PROCESS IOCS-MAIN 2 -VERSION 3
 102  1 02          CTL   630 1
 103  1 03          SFX   I
 104  1 04  OTHER  EQU   START                                             I       0101
 105  1 05  MINUS2 EQU   2                                                 I       0002
 106  1 06  MINUS3 EQU   3                                                 I       0003
 107  1 07  DIOCSB EQU   LABDIO-4                                          I       0576
 108  1 08          ORG   1                                               I               0001
 109  1 09  MAINX  DA    1X86                                              I       0001    0086                    4
 110  1 10  LMAINX EQU   *                                                 I       0086
 111  1 11          XINIT INDEX1,INDEX2,INDEX3                                                    MACRO
 112     01  INDEX1 EQU   089                                             I       0089            GEN
 113     02  089    DCW   000                                             I   3   0089            GEN             4
 114     04  091    DC    00                                              I   2   0091            GEN             4
 115     05  INDEX2 EQU   094                                             I       0094            GEN
 116     06  094    DCW   000                                             I   3   0094            GEN             4
 117     08  096    DC    00                                              I   2   0096            GEN             4
 118     09  INDEX3 EQU   099                                             I       0099            GEN
 119     10  099    DCW   000                                             I   3   0099            GEN             4
 120     12  100    DC    0                                               I   1   0100            GEN             4
 121  1 12  *
 122  1 13  *                 START OF  MAIN  LINE
 123  1 14  *
 124  1 15          ORG   101                                             I               0101
 125  1 16  START  RWD   4                                                 I   5   0101  U (U4 R                   4
 126  1 17          RWD   5                                               I   5   0106  U (U5 R                   4
 127  1 18          RWD   6                                               I   5   0111  U (U6 R                   4
 128  1 19          BSS   OVLAY2,B                                        I   5   0116  B P32 B                   5
 129  1 20          B     REDREC                                          I   4   0121  B 774                     5
 130  1 21          C     MAINX+17, 'JOB'                                 I   7   0125  C 018 W05                 5
 131  1 22          BU    CMCTL                                           I   5   0132  B 157 /                   5
 132  1 23          CC    1                                               I   2   0137  F 1                       5
 133  1 24          MCW   80,280                                          I   7   0139  M 080 280                 5
 134  1 25          W                                                     I   1   0146  2                         5
 135  1 26          CC    1                                               I   2   0147  F 1                       6
 136  1 27          B     WRTREC                                          I   4   0149  B 721                     6
 137  1 28          B     REDREC                                          I   4   0153  B 774                     6
 138  1 29  CMCTL  C     MAINX+17, 'CTL'                                 I   7   0157  C 018 W08                 6
 139  1 30          BU    FIND                                            I   5   0164  B 642 /                   6
 140  1 31          BCE   ROBIN,MAINX+23,1                                I   8   0169  B 623 024 1               6
 141  1 32          MN    MAINX+21,*+8                                    I   7   0177  D 022 191                 6
 142  1 33          BCE   ROBIN,'456',                                    I   8   0184  B 623 W11                 7
 143  1 34          CHAIN 2                                                                             MACRO
 144                BCE                                                   I   1   0192  B                 GEN     7
 145                BCE                                                   I   1   0193  B                 GEN     7
 146  1 350         B     BLUE                                            I   4   0194  B 627                     7
 147  1 36          ORG   201                                             I               0201
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SEQ  PG LIN  LABEL   OP    OPERANDS                                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
148   1 37           DA    1X132                                                        I      0201   0332               7
149   1 38           ORG   6,6                                                          I      0206              FIELD    7
150   1 39   DTFTAB  EQU   LABDTF-1                                                     I      0349
151   1 40           ORG   333                                                          I             0333
152   1 41   EITHER  B     NEXREC                                                       I   4  0333   B 681              8
153   1 42   *
154   1 43   *               CONTROL CARD INFORMATION
155   1 44   *
156   1 45   SPECL   DCW   '*'                                                          I   1  0337                      8
157   1 46   SYMNM   DCW   =3                                                           I   3  0340                      8
158   1 47   *
159   1 48   *               DTF  MAJOR  TABLE
160   1 49   *
161   1 50           DCW   ','                                                        I   1  0341                      8
162   1 51           DCW   ' '                 COBOL   YES                            I   1  0342                      8
163   1 52           DCW   ' '                 EXITS   YES                            I   1  0343                      8
164   1 53   FILENM  DCW   =6                                                         I   6  0349                      8
165   1 54   LABDTF  DCW   ' '          1      INPUT          1      FILETYPE        I   1  0350                      9
166   1 55           DCW   ' '          2      OUTPUT         2                      I   1  0351                      9
167   1 56           DCW   ' '          3      TAPE           3                      I   1  0352                      9
168   1 57           DCW   ' '          4      READER         4                      I   1  0353                      9
169   1 58           DCW   ' '          5      PUNCH          5                      I   1  0354                      9
170   1 59           DCW   ' '          6      PRINTER        6                      I   1  0355                      9
171   1 60           DCW   ' '           7     LOAD           7      MODEPAR         I   1  0356                      9
172   1 61           DCW   ' '           8     CHECKPOINT      8     FEATURES        I   1  0357                     10
173   1 62           DCW   ' '           9     NUMBER          9     CHANDRIVE       I   1  0358                     10
174   1 63           DCW   ' '          10     NUMBER         10     CARDPOC         I   1  0359                     10
175   1 64           DCW   ' '          11     NUMBER         11     ALTTAPE         I   1  0360                     10
176   1 65           DCW   ' '          12     BLOCKED        12     RECFORM         I   1  0361                     10
177   1 66           DCW   ' '          13     UNBLOCKED      13                     I   1  0362                     10
178   1 67           DCW   ' '          14     MIXED          14                     I   1  0363                     10
179   1 68           DCW   ' '          15     VARIABLE       15                     I   1  0364                     11
180   1 69           DCW   '    '       16-19  NUMBER         16     SIZEREC         I   4  0368                     11
181   1 70           DCW   ' '          20     NUMBER         17     PADDING         I   1  0369                     11
182   1 71           DCW   '    '       21-24  NUMBER         18     BLOCKSIZE       I   4  0373                     11
183   1 72           DCW   '       '     25-34    LABELS       19     IOAREAS         I  10  0383                     11
184   1 73           DCW   '       '     35-44                 20                     I  10  0393                     11
185   1 74           DCW   '       '    45-54  LABEL          21     WORKAREA        I  10  0403                     12
186   1 75           DCW   ' '          55     NUMBER         22     INDEXREG        I   1  0404                     12
187   1 76           DCW   '       '    56-65  LABEL          23     EOFADDR         I  10  0414                     12
188   1 77           DCW   '       '     66-75  LABEL         24     WLRADDR         I  10  0424                     12
189   1 78           DCW   ' '          76     RECORD         25     TOTALS          I   1  0425                     12
190   1 79           DCW   '    '       77-80  HASH           26                     I   4  0429                     12
191   1 80           DCW   ' '          81     STANDARD       27     TYPELABEL       I   1  0430                     12
192   1 81           DCW   ' '          82     NONSTANDARD    28                     I   1  0431                     13
193   1 82           DCW   ' '          83     TM             29                     I   1  0432                     13
194   1 83           DCW   ' '          84     ALL            30     CHECKLABEL      I   1  0433                     13
195   1 84           DCW   ' '          85     IDENT          31                     I   1  0434                     13
196   1 85           DCW   '   '                                                    I   3  0437                     13
197   1 86           DCW   '     '                                                  I   5  0442                     13
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SEQ  PG LIN  LABEL   OP    OPERANDS                                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
198   1 87           DCW   '          '                                                I   10  0452                    13
199   1 88           DCW   '     '      104-108 NUMBER      35     SERIALNUM         I    5  0457                    14
200   1 89           DCW   '          '  109-118             39     EX1ADDR           I   10  0467                    14
201   1 90           DCW   '          '  119-128             40     EX2ADDR           I   10  0477                    14
202   1 91           DCW   '          '  129-138             41     EX3ADDR           I   10  0487                    14
203   1 92           DCW   '          '  139-148             42     EX4ADDR           I   10  0497                    15
204   1 93           DCW   '          '  149-158             43     EX5ADDR           I   10  0507                    15
205   1 94           DCW   '          '  159-168             44     EX6ADDR           I   10  0517                    15
206   1 95           DCW   '          '  169-178             45     EX7ADDR           I   10  0527                    16
207   1 96           DCW   '          '  179-188             46     EX8ADDR           I   10  0537                    16
208   1 97           DCW   '          '  189-198             47     VARBUILD          I   10  0547                    16
209   1 98           DCW   ' '           199  UNLOAD         37     REWIND            I    1  0548                    16
210   1 99           DCW   ' '           200  NOREWD         38                       I    1  0549                    16
211   2 00           DCW   ' '            9      201                 OVERFLOW          I    1  0550                    16
212   2 01           DCW   ' '           12      202                                   I    1  0551                    16
213   2 02           DCW   '    '       203-205   NUMBER            REELSEQP          I    3  0554                    17
214   2 03           DCW   ' '                206                   FORMCNTL          I    1  0555                    17
215   2 04           DCW   =9                                                         I    9  0564                    17
216   2 05           DCW   ' '             216     ADDRESS          OVERFLOW          I    1  0565                    17
217   2 06           DCW   ' '                                                       I    1  0566                    17
218   2 07   ENDDTF  DCW   ' '                                                       I    1  0567                    17
219   2 08   *
220   2 09   *                DIOCS MAJOR TABLE
221   2 10   *
222   2 11           DCW   ','                                                       I    1  0568                    17
223   2 12   DIVIDE  EQU   *                                                         I       0568
224   2 13           DCW   ' '          40   PAR      OUT   TAPEUSE                  I    1  0569                    18
225   2 14           DCW   ' '          39   PAR      INP   TAPEUSE                  I    1  0570                    18
226   2 15           DCW   ' '          38   PAR      YES   EXITS                    I    1  0571                    18
227   2 16   LABDIO  DCW   =9                    DIOCSORG                           I    9  0580                    18
228   2 17           DCW   ' '           5                                         I    1  0581                    18
229   2 18           DCW   ' '           6       OVERLAP    FEATURES               I    1  0582                    18
230   2 19           DCW   ' '           7       TAPE       IODEVICES              I    1  0583                    18
231   2 20           DCW   ' '           8       READER                            I    1  0584                    19
232   2 21           DCW   ' '           9       PUNCH                             I    1  0585                    19
233   2 22           DCW   ' '          10       PRINTER                           I    1  0586                    19
234   2 23           DCW   ' '          11       STANDARD   LABELDEF               I    1  0587                    19
235   2 24           DCW   ' '          12       NONSTANDARD                       I    1  0588                    19
236   2 25           DCW   ' '          13       MIXED                             I    1  0589                    19
237   2 26           DCW   ' '          14       CHECK                             I    1  0590                    19
238   2 27           DCW   ' '          15       IDENT                             I    1  0591                    20
239   2 28           DCW   ' '          16       TM                                I    1  0592                    20
240   2 29           DCW   ' '          17       YES        ALTDRIVE               I    1  0593                    20
241   2 30           DCW   ' '          18       1          EXITS                  I    1  0594                    20
242   2 31           DCW   ' '          19       2                                 I    1  0595                    20
243   2 32           DCW   ' '          20       3                                 I    1  0596                    20
244   2 33           DCW   ' '          21       4                                 I    1  0597                    20
245   2 34           DCW   ' '          22       5                                 I    1  0598                    21
246   2 35           DCW   ' '          23       6                                 I    1  0599                    21
247   2 36           DCW   ' '          24       7                                 I    1  0600                    21
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SEQ  PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
248   2 37           DCW   ' '                25       8                      I   1  0601                    21
249   2 38           DCW   ' '                RDLIN    LABELDEF               I   1  0602                    21
250   2 39           DCW   ' '                27       729       DRIVETYPE    I   1  0603                    21
251   2 40           DCW   ' '                28       7330                   I   1  0604                    21
252   2 41           DCW   ' '                29       NORWD     RWDOPTION    I   1  0605                    22
253   2 42           DCW   ' '                30       UNLOAD                 I   1  0606                    22
254   2 43           DCW   ' '                31   TAPE,=        READERROR    I   1  0607                    22
255   2 44           DCW   ' '                32   SCAN                       I   1  0608                    22
256   2 45           DCW   ' '                33   PROCESS                    I   1  0609                    22
257   2 46           DCW   ' '                CLEAN   READERROR               I   1  0610                    22
258   2 47           DCW   ' '                35       YES       INPVAR       I   1  0611                    22
259   2 48           DCW   ' '                36       YES       INPFXNO      I   1  0612                    23
260   2 49           DCW   ' '                37       RECORD    COUNTS       I   1  0613                    23
261   2 50           DCW   ' '          38    HASH                           I   1  0614                    23
262   2 51           DCW   =5                                                I   5  0619                    23
263   2 52           DCW   ' '          39-44      CHECKPOINT                 I   1  0620                    23
264   2 53           DCW   ' '           45   RELEASE           FEATURES     I   1  0621                    23
265   2 54   ENDDIO  DCW   ' '           46   STORAGE                        I   1  0622                    23
266   2 55   *
267   2 56   *
268   2 57   ROBIN   S     SPECL                                             I   4  0623  S 337             24
269   5 575  BLUE    MCW   MAINX+25,NORDRL=1                                I   7  0627  M 026 W12         24
270   2 58   THRU    B     WRTREC                                            I   4  0634  B 721             24
271   2 59           B     REDREC                                            I   4  0638  B 774             24
272   2 60   FIND    C     MAINX+19,KDIOCS                                   I   7  0642  C 020 V71         24
273   2 61           BE    GOTIT                                             I   5  0649  B 670 S           24
274   2 62   *
275   2 63   *
276   2 64   *               READ IN PHASE 2
277   2 65   *
278   2 66   *
279   2 67           BCE   THRU,MAINX+5,*                                    I   8  0654  B 634 006 *       24
280   2 68   PREPS2  B     SAVCD                                             I   4  0662  B 098             25
281   2 69           B     PASS2                                             I   4  0666  B V06             25
282   2 70   GOTIT   MCW   'M',LENGTH                                        I   7  0670  M W13 743         25
283   2 72   WHOM    B     WRTREC                                            I   4  0677  B 721             25
284   2 73   NEXREC  B     REDREC                                            I   4  0681  B 774             25
285   2 74   GAMMA   BCE   WHOM,MAINX+5,*                                   I   8  0685  B 677 006 *       25
286   2 75           C     MAINX+17,'DTF'                                    I   7  0693  C 018 W16         25
287   2 76           BE    DTFND                                             I   5  0700  B 713 S           26
288   2 77           B     WRTREC                                            I   4  0705  B 721             26
289   2 78           B     UPPER                                             I   4  0709  B 821             26
290   2 79   DTFND   B     SAVCD                                             I   4  0713  B 098             26
291   2 80           B     CRDOUT                                            I   4  0717  B J68             26
292   2 81   *
293   2 82   *               WRITE  ROUTINE
294   2 83   *
295   2 84   WRTREC  SBR   WRTEXT+3                                          I   4  0721  H 761             26
296   2 85           MCW   LMAINX,LOPUT-1                                    I   7  0725  M 086 I97         26
297   2 86           SW    LOPUT                                             I   4  0732  , I98             27
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
298   2 87           MCW   GMWMRK,LOPUT                             I   7  0736  M 773 I98          27
299   2 88   LENGTH  NOP   'W',OUTPT+74                            I   7  0743  N W17 I86          27
300   2 89   SHORT   B     CTAPE                                    I   4  0750  B S22              27
301   2 90           NOP   TDF6                                     I   4  0754  N 764              27
302   2 91   WRTEXT  B     0                                        I   4  0758  B 000              27
303   2 92   TDF6    DCW   000                                      I   3  0764                     27
304   2 93           WT    6,OUTPT                                  I   8  0765  M (U6 I12 W        28
305   2 94   GMWMRK  DC    ' '                                      I   1  0773                     28
306   2 95   *
307   2 96   *               READ ROUTINE
308   2 97   *
309   2 98   REDREC  SBR   REDEXT+3                                I   4  0774  H 809              28
310   2 99           CS    LMAINX                                   I   4  0778  / 086              28
311   3 00           BSS   RTWED,C                                  I   5  0782  B 798 C            28
312   3 01           BLC   DTFOUT                                   I   5  0787  B M46 A            28
313   3 02           R                                              I   1  0792  1                  28
314   3 03           SSB   REDEXT,1                                 I   5  0793  K 806 1            28
315   3 04   RTWED   B     CTAPE                                    I   4  0798  B S22              29
316   3 05           NOP   TDF4                                     I   4  0802  N 812              29
317   3 06   REDEXT  B     0                                        I   4  0806  B 000              29
318   3 07   TDF4    DCW   +DTFOUT                                  I   3  0812  M46                29
319   3 08           RT    4,MAINX                                  I   8  0813  M (U4 001 R        29
320   3 09   *
321   3 10   *               LOOK UP LABEL
322   3 11   *
323   3 12   UPPER   CW    SCNSW=1                                  I   4  0821  ) W18              29
324   3 13           BCE   NEXREC,MAINX+20,                         I   8  0825  B 681 021          29
325   3 14           SBR   CHAIR+3,LSTPAR                           I   7  0833  H 066 075          30
326   3 15           S     INDEX2+1                                 I   4  0840  S 095              30
327   3 16           SBR   INDEX3,LBLTBL                           I   7  0844  H 099 H46          30
328   3 17   COMPR   C     MAINX+7,0+X3                             I   7  0851  C 008 0+0          30
329   3 18           SBR   INDEX3                                   I   4  0858  H 099              30
330   3 19           BE    COMEQ                                    I   5  0862  B 984 S            30
331   3 20           BCE   NEXREC,0+X3,'                           I   8  0867  B 681 0+0 '        31
332   3 21           A     '7',INDEX2                               I   7  0875  A W19 094          31
333   3 22           B     COMPR                                    I   4  0882  B 851              31
334   3 23   BRTBL   B     ACTSCN                                   I   4  0886  B /13              31
335   3 24           DCW   +DIOCSB+36          INPFXNO             I   3  0892  612                31
336   3 25           B     REASB                                    I   4  0893  B /73              31
337   3 26           DCW   =3                  READERROR           I   3  0899                     31
338   3 27           B     OPDSCN                                   I   4  0900  B 014              32
339   3 28           DCW   +RWDTB              RWDOPTION           I   3  0906  F95                32
340   3 29           B     OPDSCN                                   I   4  0907  B 014              32
341   3 30           DCW   +DRITB              DRIVETYPE           I   3  0913  F82                32
342   3 31           B     OPDSCN                                   I   4  0914  B 014              32
343   3 32           DCW   +COUTB              COUNTS              I   3  0920  G08                32
344   3 33           B     ACTSCN                                   I   4  0921  B /13              32
345   3 34           DCW   +DIOCSB+35          VARINP              I   3  0927  611                33
346   3 35           B     EXISB                                    I   4  0928  B 992              33
347   3 36           DCW   =3                                       I   3  0934                     33
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
348   3 37           B     ACTSCN                                   I   4  0935  B /13             33
349   3 38           DCW   +DIOCSB+17                 ALTDRIVE      I   3  0941  593               33
350   3 39           B     OPDSCN                                   I   4  0942  B 014             33
351   3 40           DCW   +LABTB                    LABELDEF      I   3  0948  F20               33
352   3 41           B     OPDSCN                                   I   4  0949  B 014             34
353   3 42           DCW   +IODTB                    IODEVICES     I   3  0955  E77               34
354   3 43           B     OPDSCN                                   I   4  0956  B 014             34
355   3 44           DCW   +FEATB                    FEATURES      I   3  0962  E52               34
356   3 45           B     DIOSB                     DIOCSORG      I   4  0963  B /47             34
357   3 46           DCW   +DIOCSB+5                              I   3  0969  581               34
358   3 47           B     DIOSB                                    I   4  0970  B /47             34
359   3 48           DCW   DIOCSB+44                              I   3  0976  620               35
360   3 49           B     OPDSCN                                   I   4  0977  B 014             35
361   3 50           DCW   +TAPTB                                 I   3  0983  E33               35
362   3 51   COMEQ   S     INDEX3+1                                 I   4  0984  S 100             35
363   3 52           B     BRTBL+X2                                 I   4  0988  B 8Q6             35
364   3 53   *
365   3 54   EXISB   LCA   '$',DIVIDE+3                           I   7  0992  L W20 571          35
366   3 55           B     OPDSCN                                   I   4  0999  B 014             35
367   3 56           DCW   +EXITB                    EXITS         I   3  1005  F69               36
368   3 57   *
369   3 58   NEWSCN  SBR   NWEXT+3                                  I   4  1006  H /04             36
370   3 59           MCW   '   ',OPDAR=3                           I   7  1010  M W23 W26          36
371   3 60           S     INDEX2+1                                 I   4  1017  S 095             36
372   3 61   NWSCNL  C     MAINX+21+X3,'  '                        I   7  1021  C 0B2 W28         36
373   3 62           SW    MAINX+20                                 I   4  1028  , 021             36
374   3 63           BE    FDBLK                                    I   5  1032  B ‡90 S           36
375   3 64           BCE   FOUND,MAINX+20+X3,,                     I   8  1037  B /05 0B1 ,       37
376   3 65           C     INDEX3,'52'                              I   7  1045  C 099 W30         37
377   3 66           BE    BLKFD                                    I   5  1052  B ‡97 S           37
378   3 67           MCW   MAINX+20+X3,OPDAR-2+X2                  I   7  1057  M 0B1 WK4         37
379   3 68           A     '1',INDEX2                               I   7  1064  A W31 094         37
380   3 69           BCE   FOUND,INDEX2,3                          I   8  1071  B /05 094 3       38
381   3 70           A     '1',INDEX3                               I   7  1079  A W31 099         38
382   3 71           B     NWSCNL                                   I   4  1086  B ‡21             38
383   3 72   FDBLK   A     '1',INDEX3                               I   7  1090  A W31 099         38
384   3 73   BLKFD   SW    SCNSW                                    I   4  1097  , W18            38
385   3 74   NWEXT   B     0                                        I   4  1101  B 000             38
386   3 75   FOUND   B     SCANX                                    I   4  1105  B N55             38
387   3 76           B     NWEXT                                    I   4  1109  B /01             39
388   3 77   *
389   3 78   *               ACTUAL  SCAN  FOR YES
390   3 79   *
391   3 80   ACTSCN  SBR   INDEX1                                   I   4  1113  H 089             39
392   3 81           MCW   2+X1,INDEX1                            I   7  1117  M 0‡2 089         39
393   3 82           C     MAINX+22,'YES'                           I   7  1124  C 023 W34         39
394   3 83           BU    ACTOUT                                   I   5  1131  B /43 /           39
395   3 84           LCA   '$',0+X1                                 I   7  1136  L W20 0‡0         39
396   3 85   ACTOUT  B     EITHER                                   I   4  1143  B 333             39
397   3 86   *
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
398   3 87    *              DIOCSORG
399   3 88    *
400   3 89    DIOSB   SBR    INDEX1                                  I   4  1147  H 089             40
401   3 90            MCW    2+X1,INDEX1                             I   7  1151  M 0‡2 089         40
402   3 91            B      SCANX                                   I   4  1158  B N55            40
403   3 92            LCA    MAINX+18+X3,0+X1                        I   7  1162  L 0A9 0‡0        40
404   3 93            B      NEXREC                                  I   4  1169  B 681            40
405   3 94    *
406   3 95    *              READERROR
407   3 96    *
408   3 97    REASB   SBR    CHAIR+3,CHTAP                           I   7  1173  H 066 /87         40
409   3 98            B      OPDSCN                                  I   4  1180  B 014            40
410   3 99            DCW    +REATB                                  I   3  1186  G27              41
411   4 00    CHTAP   C      OPDAR,'TAP'                             I   7  1187  C W26 W37        41
412   4 01            BU     LSTPAR                                  I   5  1194  B 075 /          41
413   4 02            B      SCANX                                   I   4  1199  B N55            41
414   4 03            BCE    LSTPAR,MAINX+18+X3,                     I   8  1203  B 075 0A9        41
415   4 04            MCW    MAINX+18+X3,DIOCSB+31                   I   7  1211  M 0A9 607        41
416   4 05            B      LSTPAR                                  I   4  1218  B 075            41
417   4 06    *
418   4 07    *              COMBINATION READ/ WRITE ROUTINE
419   4 08    *
420   4 09    CTAPE   SBR    INDEX2                                  I   4  1222  H 094            42
421   4 10            SBR    ICONPR+3                                I   4  1226  H T43            42
422   4 11            MCW    3+X2,INDEX2                             I   7  1230  M 0-3 094        42
423   4 12            MCW    8+X2,ITAPEC+7                           I   7  1237  M 0-8 T01        42
424   4 13            MCW    0+X2,IEORC+3                            I   7  1244  M 0-0 T13        42
425   4 14            SW     ICOMPR+4                                I   4  1251  , T19            42
426   4 15            MCW    7+X2,ICOMPR+6                           I   7  1255  M 0-7 T21        43
427   4 16            A      '12',ICOMPR+6                           I   7  1262  A W39 T21        43
428   4 17            CW     ICOMPR+4                                I   4  1269  ) T19            43
429   4 18            MN     ITAPEC+3,IHALT+6                        I   7  1273  D S97 U28        43
430   4 19            MN     ITAPEC+7,IHALT+6                        I   7  1280  D T01 U28        43
431   4 20            MCW    '9',IERRCT=1                            I   7  1287  M W40 W41        43
432   4 21  ITAPEC    RT     0,0                                     I   8  1294  M (U0 000 R      44
433   4 22            BCE    IOMETS,ITAPEC+7,W                       I   8  1302  B T35 T01 W      44
434   4 23  IEORC     BEF    0                                       I   5  1310  B 000 K          44
435   4 24  ICOMPR    BCE    ITAPEC,0,                               I   8  1315  B S94 000        44
436   4 25            CHAIN  12                                                          MACRO
437                   BCE                                            I   1  1323  B             GEN  44
438                   BCE                                            I   1  1324  B             GEN  44
439                   BCE                                            I   1  1325  B             GEN  44
440                   BCE                                            I   1  1326  B             GEN  45
441                   BCE                                            I   1  1327  B             GEN  45
442                   BCE                                            I   1  1328  B             GEN  45
443                   BCE                                            I   1  1329  B             GEN  45
444                   BCE                                            I   1  1330  B             GEN  45
445                   BCE                                            I   1  1331  B             GEN  45
446                   BCE                                            I   1  1332  B             GEN  45
447                   BCE                                            I   1  1333  B             GEN  46
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
448                 BCE                                           I   1   1334  B           GEN     46
449  4  26  ICMETS  BER   IRWRED                                   I   5   1335  B T44 L             46
450  4  27  ICONPR  B     0                                       I   4   1340  B 000               46
451  4  28  IRWRED  S     '1',IERRCT                              I   7   1344  S W31 W41           46
452  4  29          MN    ITAPEC+3,*+4                            I   7   1351  D S97 T61           46
453  4  30          BSP   0                                       I   5   1358  U (U0 B             46
454  4  31          BCE   ITROW,ITAPEC+7,W                       I   8   1363  B T83 T01 W         47
455  4  32          BM    IHALT,IERRCT                            I   8   1371  V U22 W41 K         47
456  4  33          B     ITAPEC                                  I   4   1379  B S94               47
457  4  34  ITROW   A     '1',IERASC=2                            I   7   1383  A W31 W43           47
458  4  35          SKP   6                                       I   5   1390  U (U6 E             47
459  4  36          BCE   ICHALT,IERASC-1,5                       I   8   1395  B U07 W42 5         48
460  4  37          B     ITAPEC-7                                I   4   1403  B S87               48
461  4  38  ICHALT  S     IERASC                                  I   4   1407  S W43               48
462  4  39          H     0,202                                   I   7   1411  . 000 202           48
463  4  40          B     ITAPEC-7                                I   4   1418  B S87               48
464  4  41  IHALT   H     0,200                                   I   7   1422  . 000 200           48
465  4  42          BSS   ITAPEC-7,E                              I   5   1429  B S87 E             48
466  4  43          MCW   ITAPEC+7,*+8                            I   7   1434  M T01 U48           49
467  4  44          RT    0,0                                     I   8   1441  M (U0 000 R         49
468  4  45          H     0,201                                   I   7   1449  . 000 201           49
469  4  46          B     ICONPR                                  I   4   1456  B T40               49
470  4  47  PASSI   LCA   ENDDIO,ENDDTF                          I   7   1460  L 622 567           49
471  4  48          LCA                                           I   1   1467  L                   49
472  4  49          SBR   EITHER+3,DIFREC                         I   7   1468  H 336 M06           50
473  4  50          MCW   +DTFTAB+X1,OPDFND+6                    I   7   1475  M W46 093           50
474  4  51          LCA   186,LMAINX                              I   7   1482  L 186 086           50
475  4  52          B     WRTREC                                  I   4   1489  B 721               50
476  4  53          B     DTFNM                                   I   4   1493  B L91               50
477  4  54  ALTBY   B     BYPSS                                   I   4   1497  B C49               50
478  4  55          BSP   4                                       I   5   1501  U (U4 B             50
479  4  56  PASS2   RT    1,3997                                  I   8   1506  M (U1 I97 R         51
480  4  57          RT    1,3997                                  I   8   1514  M (U1 I97 R         51
481  4  58          SBR   TDF1+7,341                             I   7   1522  H P30 341           51
482  4  59          B     CTAPE                                   I   4   1529  B S22               51
483  4  60          NOP   TDF1                                    I   4   1533  N P23               51
484  4  61          B     OVLY3                                   I   4   1537  B 341               51
485  4  62  *
486  4  63  NUMERC  SBR   INDEX1                                  I   4   1541  H 089               51
487  4  64          MCW   2+X1,INDEX1                            I   7   1545  M 0‡2 089           52
488  4  65          SW    MAINX+20                                I   4   1552  , 021               52
489  4  66          MCW   MAINX+20,DTFTAB+X1                      I   7   1556  M 021 3U9           52
490  4  67          B     DIFREC                                  I   4   1563  B M06               52
491  4  68  KDIOCS  DCW   'DIOCS'                                 I   5   1571                      52
492  4  69  BLORB   B     SCANX                                   I   4   1572  B N55               52
493  4  70          A     MAINX+18+X3,BLOWA-1                     I   7   1576  A 0A9 W01           52
494  4  71          LCA   BLOWA-1,DTFTAB+24                       I   7   1583  L W01 373           53
495  4  72          S     BLOWA                                   I   4   1590  S W02               53
496  4  73          B     EITHER                                  I   4   1594  B 333               53
497  4  74  BLOWA   DCW   +00000                                 I   5   1602                      53
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SEQ  PG LIN  LABEL   OP     OPERANDS                SFX CT  LOCN  INSTRUCTION TYPE   CARD
498   4  75          LTORG  *                       I           1603
                     DCW    'JOB'                   I   3   1605          LIT      53
                            'CTL'                   I   3   1608          LIT      53
                            '456'                   I   3   1611          LIT      53
          269  NORDRL       =01                     I   1   1612          AREA     54
                            'M'                     I   1   1613          LIT      54
                            'DTF'                   I   3   1616          LIT      54
                            'W'                     I   1   1617          LIT      54
          323  SCNSW        =01                     I   1   1618          AREA     54
                            '7'                     I   1   1619          LIT      54
                            '$'                     I   1   1620          LIT      54
                            '  '                    I   3   1623          LIT      55
          370  OPDAR        =03                     I   3   1626          AREA     55
                            ' '                     I   2   1628          LIT      55
                            '52'                    I   2   1630          LIT      55
                            '1'                     I   1   1631          LIT      55
                            'YES'                   I   3   1634          LIT      55
                            'TAP'                   I   3   1637          LIT      55
                            '12'                    I   2   1639          LIT      56
                            '9'                     I   1   1640          LIT      56
          431  IERRCT       =01                     I   1   1641          AREA     56
          457  IERASC       =02                     I   2   1643          AREA     56
          473               +DTFTAB+X1              I   3   1646  3U9     ADCON    56
499   4  76          ORG    1649                    I           1649
500   4  77    OVER  DCW    ' '                     I   1   1649                   57
501   4  78          EX                             I               B 000          58
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
502   4 79           JOB   1401 AUTOCODER-PASS 2-PROCESS IOCS-MAIN 1 -VERSION 3
503   4 80           ORG   1650                                       I          1650
504   4 81           SFX   I
505   4 82    *
506   4 83    *               DTF  TABLE  OF  BRANCHES
507   4 84    *
508   4 85    DTFINT SBR    INDEX3,DTFLAB                             I   7  1650  H 099 H03          61
509   4 86           SBR    CHAIR+3,LSTPAR                            I   7  1657  H 066 075          61
510   4 87           BCE    DIFREC,MAINX+20,                          I   8  1664  B M06 021          61
511   4 88           CW     SCNSW                                     I   4  1672  ) W18             61
512   4 89           C      MAINX+6,'EX'                              I   7  1676  C 007 H48          61
513   4 90           BE     EXIRB                                     I   5  1683  B -31 S            61
514   4 91           S      INDEX2+1                                  I   4  1688  S 095             62
515   4 92    SEEK   C      MAINX+7,0+X3                              I   7  1692  C 008 0+0          62
516   4 93           SBR    INDEX3                                    I   4  1699  H 099             62
517   4 94           BE     AGREE                                     I   5  1703  B Z35 S            62
518   4 95           BCE    DIFREC,0+X3,'                             I   8  1708  B M06 0+0 '        62
519   4 96           A      '7',INDEX2                                I   7  1716  A H49 094          62
520   4 97           B      SEEK                                      I   4  1723  B W92             62
521   4 98    DTFBR  B      OPDSCN                                    I   4  1727  B 014             63
522   4 99           DCW    REWXZ                     REWIND          I   3  1733  E00               63
523   5 00           B      ACTUAL                                    I   4  1734  B -89             63
524   5 01           DCW    +DTFTAB+205               REELSEQ         I   3  1740  554               63
525   5 02           B      ACTUAL                                    I   4  1741  B -89             63
526   5 03           DCW    +DTFTAB+108               SERIALNUM       I   3  1747  457               63
527   5 04           B      HEARB                                     I   4  1748  B N37             63
528   5 05           DCW    +DTFTAB+103                               I   3  1754  452               64
529   5 06           B      OPDSCN                                    I   4  1755  B 014             64
530   5 07           DCW    +CHEXZ                    CHECKLABEL      I   3  1761  D87               64
531   5 08           B      OPDSCN                                    I   4  1762  B 014             64
532   5 09           DCW    +TYPXZ                    TYPELABEL       I   3  1768  D74               64
533   5 10           B      TOTRB                                     I   4  1769  B Z81             64
534   5 11           DCW    =3                        TOTALS          I   3  1775                    64
535   5 12           B      ACTUAL                                    I   4  1776  B -89             65
536   5 13           DCW    +DTFTAB+75                WLRADDR         I   3  1782  424               65
537   5 14           B      ACTUAL                                    I   4  1783  B -89             65
538   5 15           DCW    +DTFTAB+65                EOFADDR         I   3  1789  414               65
539   5 16           B      INDRB                                     I   4  1790  B -71             65
540   5 17           DCW    =3                        INDEXREG        I   3  1796                    65
541   5 18           B      ACTUAL                                    I   4  1797  B -89             65
542   5 19           DCW    +DTFTAB+54                WORKAREA        I   3  1803  403               66
543   5 20           B      IOARB                                     I   4  1804  B Z47             66
544   5 21           DCW    +DTFTAB+44                IOAREAS         I   3  1810  393               66
545   5 22           B      BLORB                                     I   4  1811  B V72             66
546   5 23           DCW    +DTFTAB+24                BLOCKSIZE       I   3  1817  373               66
547   5 24           B      NUMERC                                    I   4  1818  B V41             66
548   5 25           DCW    '020'                     PADDING         I   3  1824                    66
549   5 26           B      ACTUAL                                    I   4  1825  B -89             67
550   5 27           DCW    +DTFTAB+19                SIXEREC         I   3  1831  368               67
551   5 28           B      OPDSCN                                    I   4  1832  B 014             67
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SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
552   5 29          DCW   +RECXZ                  RECFORM         I   3   1838  D55               67
553   5 30          B     NUMERC                                    I   4   1839  B V41             67
554   5 31          DCW   '011'                   ALTTAPE         I   3   1845                    67
555   5 32          B     NUMERC                                    I   4   1846  B V41             67
556   5 33          DCW   '010'                   CARDPOC         I   3   1852                    68
557   5 34          B     OPDSCN                                    I   4   1853  B 014             68
558   5 35          DCW   +MODXZ                  MODEPAR         I   3   1859  D30               68
559   5 36          B     OPDSCN                                    I   4   1860  B 014             68
560   5 37          DCW   +FILXZ                  FILETUPE        I   3   1866  D23               68
561   5 38          B     NUMERC                                    I   4   1867  B V41             68
562   5 39          DCW   '009'                   CHANDRIVE       I   3   1873                    68
563   5 40          B     ACTUAL                                    I   4   1874  B -89             69
564   5 41          DCW   DTFTAB+198              VARBUILD        I   3   1880  547               69
565   5 42          B     ACTSCN                                    I   4   1881  B /13             69
566   5 43          DCW   +DTFTAB-7                                 I   3   1887  342               69
567   5 44          B     NUMERC                                    I   4   1888  B V41             69
568   5 45          DCW   '206'                                     I   3   1894                    69
569   5 46          B     OVERB                                     I   4   1895  B -06             69
570   5 47          DCW   =1                                        I   1   1899                    70
571   5 48          ORG   1900                                      I           1900
572   5 49          RTW   1,1                                       I   8   1900  L (U1 001 R       70
573   5 50          BER   HALT                                      I   5   1908  B Z21 L           70
574   5 51          CW    OVER                                      I   4   1913  ) W49             70
575   5 52          B     OTHER                                     I   4   1917  B 101             70
576   5 53  HALT    BSP   1                                         I   5   1921  U (U1 B           70
577   5 54          NOP   288                                       I   4   1926  N 288             70
578   5 55          H                                               I   1   1930  .                 71
579   5 56          B     1900                                      I   4   1931  B Z00             71
580   5 57  *
581   5 58  AGREE   S     INDEX3+1                                  I   4   1935  S 100             71
582   5 59          SW    MAINX+20                                  I   4   1939  , 021             71
583   5 60          B     DTFBR+X2                                  I   4   1943  B XK7             71
584   5 61  *               IOAREAS
585   5 62  *
586   5 63  IOARB   B     SCANX                                     I   4   1947  B N55             71
587   5 64          LCA   MAINX+18+X3,DTFTAB+44                     I   7   1951  L 0A9 393         71
588   5 65          BW    EITHER,SCNSW                              I   8   1958  V 333 W18 1       72
589   5 66          B     SCANX                                     I   4   1966  B N55             72
590   5 67          LCA   MAINX+18+X3,DTFTAB+34                     I   7   1970  L 0A9 383         72
591   5 68          B     EITHER                                    I   4   1977  B 333             72
592   5 69  *
593   5 70  *               TOTALS
594   5 71  *
595   5 72  TOTRB   SBR   CHAIR+3,TOTJK                            I   7   1981  H 066 Z95         72
596   5 73          B     OPDSCN                                    I   4   1988  B 014             72
597   5 74          DCW   +TOTXZ                                    I   3   1994  E20               72
598   5 75  TOTJK   LCA   MAINX+18+X3,DTFTAB+80                     I   7   1995  L 0A9 429         73
599   5 76          B     LSTPAR                                    I   4   2002  B 075             73
600   5 77  OVERB   SBR   CHAIR+3,OVEJK                            I   7   2006  H 066 -20         73
601   5 78          B     OPDSCN                                    I   4   2013  B 014             73
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
602   5 79           DCW   +OVEXZ                    OVERFLOW         I   3  2019  E13               73
603   5 80   OVEJK   LCA   MAINX+18+X3,DTFTAB+216                    I   7  2020  L 0A9 565         73
604   5 81           B     LSTPAR                                     I   4  2027  B 075             73
605   5 82   *
606   5 83   *               EXITS  ROUTINE
607   5 84   *
608   5 85   EXIRB   MCW   '1 8',INDEX2                              I   7  2031  M H52 094         74
609   5 86           MN    MAINX+7,INDEX2-1                           I   7  2038  D 008 093         74
610   5 87           S     INDEX3+1                                   I   4  2045  S 100             74
611   5 88           B     SCANX                                      I   4  2049  B N55             74
612   5 89           LCA   MAINX+18+X3,DTFTAB+X2                    I   7  2053  L 0A9 3M9         74
613   5 90           LCA   '$',DTFTAB-6                             I   7  2060  L H53 343         74
614   5 91           B     DIFREC                                     I   4  2067  B M06             75
615   5 92   *
616   5 93   *               INDEX  REGISTER
617   5 94   *
618   5 95   INDRB   MN    MAINX+21,DTFTAB+55                         I   7  2071  D 022 404         75
619   5 96           MZ    ' ',DTFTAB+55                              I   7  2078  Y H54 404         75
620   5 97           B     DIFREC                                     I   4  2085  B M06             75
621   5 98   *
622   5 99   *               LOAD  PARAMETERS - ACTUAL
623   6 00   *
624   6 01   ACTUAL  SBR   INDEX1                                    I   4  2089  H 089             75
625   6 015          BW    EITHER,SCNSW                               I   8  2093  V 333 W18 1       75
626   6 02           MCW   2+X1,INDEX1                               I   7  2101  M 0‡2 089         76
627   6 03   SEARCH  B     SCANX                                      I   4  2108  B N55             76
628   6 04           LCA   MAINX+18+X3,0+X1                          I   7  2112  L 0A9 0‡0         76
629   6 05           SBR   INDEX1                                    I   4  2119  H 089             76
630   6 06           BW    DIFREC,SCNSW                               I   8  2123  V M06 W18 1       76
631   6 07           B     SEARCH                                     I   4  2131  B J08             76
632   6 08   NEWWRT  SBR   WRTEXT+3                                  I   4  2135  H 761             76
633   6 09           MCW   LMAINX,LOPUT-1                             I   7  2139  M 086 I97         77
634   6 10           SW    OUTPT+80                                   I   4  2146  , I92             77
635   6 11           MCW   GMWMRK,OUTPT+80                           I   7  2150  M 773 I92         77
636   6 12   LONG    MCW   '*',OUTPT+73                             I   7  2157  M H55 I85         77
637   6 13           B     SHORT                                      I   4  2164  B 750             77
638   6 14   *
639   6 15   *                 OUTPUT  MACRO  STATEMENT  FOR  DIOC
640   6 16   *
641   6 17   CRDOUT  MN    '5',TDF6+4                                 I   7  2168  D H56 768         77
642   6 18           CS    LMAINX                                     I   4  2175  / 086             78
643   6 19           MCW   '55555',MAINX+19                          I   7  2179  M H61 020         78
644   6 20           SBR   INDEX3,ENDDIO                            I   7  2186  H 099 622         78
645   6 21           B     GOOD+4                                     I   4  2193  B K01             78
646   6 22   GOOD    CS    LMAINX                                     I   4  2197  / 086             78
647   6 23           SW    1                                          I   4  2201  , 001             78
648   6 24           SBR   INDEX1,MAINX+20                          I   7  2205  H 089 021         78
649   6 25           MCW   '‡',MAINX+72                             I   7  2212  M H62 073         79
650   6 26   LODPAR  MCW   0+X3,WKAREA-1                            I   7  2219  M 0+0 L89         79
651   6 27           SBR   INDEX2                                    I   4  2226  H 094             79
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
652   6 28           MCW   INDEX1,SAVXL1=3                    I  7  2230  M 089 H65          79
653   6 29           MCM   1+X2,0+X1                         I  7  2237  P 0-1 0≠0          79
654   6 30           SBR   INDEX1                            I  4  2244  H 089              79
655   6 31           MCW   ', ',0+X1                         I  7  2248  M H67 0≠0          80
656   6 32           BCE   CONTIN,MAINX+72,≠                 I  8  2255  B L01 073 ≠        80
657   6 33           MCW   SAVXL1,INDEX1                     I  7  2263  M H65 089          80
658   6 34           SW    0+X1                              I  4  2270  , 0≠0              80
659   6 35           MCW   '  ',MAINX+79                     I  7  2274  M H69 080          80
660   6 36           MCW   MAINX+78                          I  4  2281  M 079              80
661   6 37           CW    0+X1                              I  4  2285  ) 0≠0              81
662   6 38           B     NEWWRT                            I  4  2289  B J35              81
663   6 39           CW    OUTPT+80                          I  4  2293  ) I92              81
664   6 40           B     GOOD                              I  4  2297  B J97              81
665   6 41  CONTIN   MCW   0+X3,0+X3                         I  7  2301  M 0+0 0+0          81
666   6 42           SBR   INDEX3                           I  4  2308  H 099              81
667   6 43  COMBLK   C     0+X3,' '                          I  7  2312  C 0+0 H54          81
668   6 44           SAR   INDEX3                           I  4  2319  Q 099              82
669   6 45           BE    COMBLK                            I  5  2323  B L12 S           82
670   6 46           A     '1',INDEX3                        I  7  2328  A H70 099          82
671   6 47           B     ALLDIO,0+X3,,                     I  8  2335  B L47 0+0 ,       82
672   6 48           B     LODPAR                            I  4  2343  B K19             82
673   6 49  ALLDIO   MCW   '  ',0+X1                         I  7  2347  M H69 0≠0          82
674   6 50           MCW   ' ',MAINX+72                      I  7  2354  M H54 073          83
675   6 51           B     NEWWRT                            I  4  2361  B J35             83
676   6 52           CW    OUTPT+80                          I  4  2365  ) I92             83
677   6 53           MN    '6',TDF6+4                        I  7  2369  D H71 768         83
678   6 54  BETTER   B     PASSI                             I  4  2376  B U60             83
679   6 55  WKAREA   DCW   '          ≠'                     I 11  2390                   83
680   6 56  DTFNM    S     INDEX3+1                          I  4  2391  S 100             84
681   6 57           B     SCANX                             I  4  2395  B N55             84
682   6 58           LCA   MAINX+18+X3,FILENM                I  7  2399  L 0A9 349         84
683   6 59  DIFREC   B     REDREC                            I  4  2406  B 774             84
684   6 60  DELTA    BCE   ALPHA,MAINX+5,*                   I  8  2410  B M30 006 *       84
685   6 61           C     MAINX+19,'     '                  I  7  2418  C 020 H76          84
686   6 62           BU    DTFOUT                            I  5  2425  B M46 /           84
687   6 63  ALPHA    B     WRTREC                            I  4  2430  B 721             85
688   6 64           BCE   DIFREC,MAINX+5,*                 I  8  2434  B M06 006 *       85
689   6 65           B     DTFINT                            I  4  2442  B W50             85
690   6 66  DTFOUT   MN    '5',TDF6+4                        I  7  2446  D H56 768         85
691   6 67           SBR   INDEX3,ENDDTF                     I  7  2453  H 099 567         85
692   6 68           B     SAVCD                             I  4  2460  B 098             85
693   6 69           SBR   WALK+3,ALTBY                      I  7  2464  H Q99 U97         86
694   6 70           C     MAINX+17,'DTF'                    I  7  2471  C 018 H79         86
695   6 71           CS    LMAINX                            I  4  2478  / 086             86
696   6 72           MCW   '33333',MAINX+19                  I  7  2482  M H84 020         86
697   6 73           BE    SETDSW                            I  5  2489  B N05 S           86
698   6 74  RIVER    SBR   BETTER+3,PASS2                   I  7  2494  H L79 V06         86
699   6 75           B     GOOD+4                            I  4  2501  B K01             87
700   6 76  SETDSW   SBR   BETTER+3,RNDTF                   I  7  2505  H L79 N16         87
701   6 77           B     GOOD+4                            I  4  2512  B K01             87
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
702   6 78   RNDTF   RTW   1,341                                      I   8  2516  L (U1 341 R         87
703   6 79           BSP   1                                         I   5  2524  U (U1 B             87
704   6 80           CW    DTFGM                                     I   4  2529  ) 568               87
705   6 81           B     PASSI                                     I   4  2533  B U60               87
706   6 82   HEARB   B     SCANX                                     I   4  2537  B N55               88
707   6 83           MCW   MAINX+18+X3,DTFTAB+103                    I   7  2541  M 0A9 452           88
708   6 84           B     ACTUAL                                    I   4  2548  B -89              88
709   6 85           DCW   +DTFTAB+93                                I   3  2554  442                88
710   6 86   *
711   6 87   *               SCAN FOR A COMMA OR TWO BLANKS
712   6 88   *
713   6 89   SCANX   SBR   CLUBS+3                                   I   4  2555  H 013              88
714   6 90   SCANL   SW    MAINX+20                                  I   4  2559  , 021              88
715   6 91           C     MAINX+21+X3,'  '                          I   7  2563  C 0B2 H69          88
716   6 92           A     '1',INDEX3                                I   7  2570  A H70 099          89
717   6 93           BE    SETIT                                     I   5  2577  B 002 S            89
718   6 94           BCE   SETWMS,MAINX+19+X3,,                      I   8  2582  B 006 0B0 ,        89
719   6 95           C     INDEX3,'52'                               I   7  2590  C 099 H86          89
720   6 96           BU    SCANL                                     I   5  2597  B N59 /            89
721   6 97   SETIT   SW    SCNSW                                     I   4  2602  , W18              89
722   6 98   SETWMS  SW    MAINX+20+X3                               I   4  2606  , 0B1              90
723   6 99   CLUBS   B     0                                         I   4  2610  B 000              90
724   7 00   *
725   7 01   *               SCAN   OPERAND  TABLE
726   7 02   *
727   7 03   *
728   7 04   OPDSCN  SBR   INDEX2                                    I   4  2614  H 094              90
729   7 05           MCW   2+X2,SAVX2                               I   7  2618  M 0-2 H89          90
730   7 06   OPDRTN  B     NEWSCN                                    I   4  2625  B ≠06              90
731   7 07           MCW   SAVX2=3,INDEX2                           I   7  2629  M H89 094          90
732   7 08   SEEKOP  C     OPDAR,0+X2                                I   7  2636  C W26 0-0          90
733   7 09           SBR   INDEX2                                    I   4  2643  H 094              91
734   7 10           MCW   0+X2,INDEX1                              I   7  2647  M 0-0 089          91
735   7 11           SAR   INDEX2                                    I   4  2654  Q 094              91
736   7 12           BE    OPDFND                                    I   5  2658  B 087 S            91
737   7 13   CHAIR   BCE   LSTPAR,0+X2,'                            I   8  2663  B 075 0-0 '        91
738   7 14           B     SEEKOP                                    I   4  2671  B 036              91
739   7 15   LSTPAR  BW    EITHER,SCNSW                              I   8  2675  V 333 W18 1        92
740   7 16           B     OPDRTN                                    I   4  2683  B 025              92
741   7 17   OPDFND  LCA   '$',DIOCSB+X1                             I   7  2687  L H53 5X6          92
742   7 18           B     LSTPAR                                    I   4  2694  B 075              92
743   7 19   SAVCD   SBR   SVCDX+3                                   I   4  2698  H P20              92
744   7 20           CS    186                                       I   4  2702  / 186              92
745   7 21           SW    101                                       I   4  2706  , 101              92
746   7 22           MCW   LMAINX,186                                I   7  2710  M 086 186          93
747   7 23   SVCDX   B     0                                         I   4  2717  B 000              93
748   7 24   *
749   7 25   *               READ  IN  OVERLAY  TWO
750   7 26   *
751   7 27   TDF1    DCW   =3                                        I   3  2723                     93
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
752   7 28           RTW   1,101                                    I  8  2724  L (U1 101 R          93
753   7 29   OVLAY2  SW    GMOVL2                                   I  4  2732  , 332               93
754   7 30           MCW   GMWMRK,GMOVL2                            I  7  2736  M 773 332           93
755   7 31           RT    1,101                                    I  8  2743  M (U1 101 R          94
756   7 32           B     CTAPE                                    I  4  2751  B S22               94
757   7 33           NOP   TDF1                                     I  4  2755  N P23               94
758   7 34           B     PUNCH                                    I  4  2759  B 101               94
759   7 35   *
760   7 36   *               ALTER PART OF IOCS
761   7 37   *
762   7 38   ALTER   B     CTAPE                                    I  4  2763  B S22               94
763   7 39           NOP   TDF4A                                    I  4  2767  N A35               94
764   7 40           MCW   OUTPT+7,SYMNM                           I  7  2771  M I19 340           94
765   7 41           BSS   OUTCL,C                                  I  5  2778  B 119 C             95
766   7 42           BSP   4                                        I  5  2783  U (U4 B             95
767   7 43           SBR   RIVER+6,TUNEL                           I  7  2788  H N00 Q88           95
768   7 44           SBR   PREPS2+3                                 I  4  2795  H 665               95
769   7 45           R                                              I  1  2799  1                   95
770   7 46           C     MAINX+17,'ALT'                           I  7  2800  C 018 H92           95
771   7 47           BU    WALK                                     I  5  2807  B Q96 /             95
772   7 48   HOMAL   B     SAVXX                                    I  4  2812  B C19               96
773   7 49           B     PACKX                                    I  4  2816  B R43               96
774   7 50   NOALTB  B     CTAPE                                    I  4  2820  B S22               96
775   7 51           NOP   TDF4A                                    I  4  2824  N A35               96
776   7 52           C     OUTPT+83,HLDA1                           I  7  2828  C I95 I02           96
777   7 53           BE    CHECK                                    I  5  2835  B +05 S             96
778   7 54   PROPRE  C     OUTPT+17,'JOB'                           I  7  2840  C I29 H95           96
779   7 55   ALTS1   BU    ALTS2E                                   I  5  2847  B Q60 /             97
780   7 56           B     NOPJB                                    I  4  2852  B 205               97
781   7 57           B     NOTER                                    I  4  2856  B 220               97
782   7 58   ALTS2E  C     OUTPT+17,'CTL'                           I  7  2860  C I29 H98           97
783   7 59   ALTS2   BE    OUTCL                                    I  5  2867  B 119 S             97
784   7 60   SOLVED  MCW   OUTPT+85,LMAINX                         I  7  2872  M I97 086           97
785   7 61           SW    READS                                    I  4  2879  , I10               97
786   7 62   ALTIO   BSS   REGEN,G                                 I  5  2883  B A44 G             98
787   7 63   TUNEL   BW    BSPT4,READS                              I  8  2888  V R04 I10 1         98
788   7 64   WALK    B     SAVCD                                    I  4  2896  B 098               98
789   7 65           B     ALTBY                                    I  4  2900  B U97               98
790   7 66   BSPT4   BW    REGL,XCARDS                              I  8  2904  V R27 I09 1         98
791   7 67           MN    '5',TDF6+4                               I  7  2912  D H56 768           98
792   7 68           B     NEWWRT                                   I  4  2919  B J35               99
793   7 69           B     REGL+5                                   I  4  2923  B R32               99
794   7 70   REGL    BSP   4                                        I  5  2927  U (U4 B             99
795   7 71           LCA   AREASV,186                              I  7  2932  L 331 186           99
796   7 72           B     ALTBY                                    I  4  2939  B U97               99
797   7 73   PACKX   SBR   PACKS+3                                 I  4  2943  H +04               99
798   7 74           SW    BALTR                                    I  4  2947  , I03               99
799   7 75           CW    SCNSW                                    I  4  2951  ) W18              100
800   7 76           S     INDEX3+1                                 I  4  2955  S 100              100
801   7 77           B     SCANX                                    I  4  2959  B N55              100
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
802   7 78           ZA    MAINX+18+X3,HLDA1=4                        I   7  2963  + 0A9 I02         100
803   7 79           BW    PARKS,SCNSW                                I   8  2970  V R93 W18 1       100
804   7 80           B     SCANX                                      I   4  2978  B N55            100
805   7 81           ZA    MAINX+18+X3,HLDB                           I   7  2982  + 0A9 I07        100
806   7 82           CW    BALTR=1                                    I   4  2989  ) I03            101
807   7 83   PARKS   CS    LMAINX                                     I   4  2993  / 086            101
808   7 84           SW    1                                          I   4  2997  , 001            101
809   7 85   PACKS   B     0                                          I   4  3001  B 000            101
810   7 86   *
811   7 87   *               ALTER  NUMBER  COMPARES  EQUAL
812   7 88   *
813   7 89   CHECK   BW    WRTAL,BALTR                                I   8  3005  V +37 I03 1       101
814   7 90   DBLAL   C     OUTPT+83,HLDB=4                            I   7  3013  C I95 I07         101
815   7 91           BE    WRTAL                                      I   5  3020  B +37 S          101
816   7 92           B     CTAPE                                      I   4  3025  B S22            102
817   7 93           NOP   TDF4A                                     I   4  3029  N A35            102
818   7 94           B     DBLAL                                      I   4  3033  B +13            102
819   7 95   WRTAL   BLC   TUNEL                                     I   5  3037  B Q88 A          102
820   7 96           R                                                I   1  3042  1                102
821   7 97           C     MAINX+17,'ALT'                             I   7  3043  C 018 H92         102
822   7 98           BE    HOMAL                                      I   5  3050  B Q12 S          102
823   7 99           C     MAINX+17,'JOB'                             I   7  3055  C 018 H95         103
824   8 00   ALTS3   BU    ALTS4E                                     I   5  3062  B +75 /          103
825   8 01           B     NOPJB                                      I   4  3067  B 205            103
826   8 02           B     RSOLV                                      I   4  3071  B 175            103
827   8 03   ALTS4E  C     MAINX+17,'CTL'                             I   7  3075  C 018 H98         103
828   8 04   ALTS4   BE    CRDCL                                      I   5  3082  B 138 S          103
829   8 05           BW    TUFF,BALTR                                 I   8  3087  V A03 I03 1       104
830   8 06           CW    READS                                      I   4  3095  ) I10            104
831   8 07           B     ALTIO                                      I   4  3099  B Q83            104
832   8 08   TUFF    B     SAVXX                                      I   4  3103  B C19            104
833   8 09           CW    XCARDS                                     I   4  3107  ) I09            104
834   8 10           SBR   RSOLV+7,SOLVED                            I   7  3111  H 182 Q72         104
835   8 101          SBR   CHUCK+3                                   I   4  3118  H 234            104
836   8 102          MCW   'N',NOSOL                                 I   7  3122  M I08 131         105
837   8 11           B     PROPRE                                     I   4  3129  B Q40            105
838   8 12   *
839   8 13   *               TDF  FOR  READING  86  CHARACTER  RECORDS
840   8 14   *
841   8 15   TDF4A   DCW   TUNEL                                     I   3  3135  Q88              105
842   8 16           RT    4,OUTPT                                    I   8  3136  M (U4 I12 R       105
843   8 17   *
844   8 18   *               REGENERATION  OF  DIOCS  AND  DTF
845   8 19   *
846   8 20   REGEN   BW    ORDN,XCARDS                                I   8  3144  V A85 I09 1       105
847   8 21           SBR   NEXREC+3,SPCAS                           I   7  3152  H 684 A74         105
848   8 22           SBR   ALDIO-1,SOFT                              I   7  3159  H B02 B68         106
849   8 23           CW    READS                                      I   4  3166  ) I10            106
850   8 24           B     FIND                                       I   4  3170  B 642            106
851   8 25   SPCAS   MCW   AREASV,LMAINX                             I   7  3174  M 331 086        106
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
852   8 26           SW    XCARDS=1                                 I   4  3181  , I09             106
853   8 27   ORDN    SBR   NEXREC+3,ALDIO                           I   7  3185  H 684 B03          106
854   8 28           SBR   DIFREC+3,ALDTF                          I   7  3192  H M09 C08          107
855   8 29           B     FIND                                     I   4  3199  B 642             107
856   8 30   ALDIO   CS    LMAINX                                   I   4  3203  / 086             107
857   8 31           BW    RDT4A,READS                              I   8  3207  V B41 I10 1        107
858   8 32           BLC   LUNET                                   I   5  3215  B C34 A           107
859   8 33           R                                              I   1  3220  1                 107
860   8 34           C     MAINX+17,'ALT'                           I   7  3221  C 018 H92          107
861   8 35           BU    SOFT                                     I   5  3228  B B68 /           108
862   8 36           B     SAVXX                                    I   4  3233  B C19             108
863   8 37           B     PACKX                                    I   4  3237  B R43             108
864   8 38   RDT4A   B     BYPSS                                    I   4  3241  B C49             108
865   8 39           C     OUTPT+83,HLDA1                           I   7  3245  C I95 I02         108
866   8 40   FINAL   BE    DBLCK                                    I   5  3252  B B72 S           108
867   8 41           SW    READS                                    I   4  3257  , I10             108
868   8 42   FINAL2  MCW   OUTPT+85,LMAINX                          I   7  3261  M I97 086         109
869   8 43   SOFT    B     GAMMA                                    I   4  3268  B 685             109
870   8 44   DBLCK   CW    READS=1                                  I   4  3272  ) I10             109
871   8 45           BW    FINAL2,BALTR                             I   8  3276  V B61 I03 1        109
872   8 46   TRPCK   C     OUTPT+83,HLDB                            I   7  3284  C I95 I07         109
873   8 47           BE    ALDIO                                    I   5  3291  B B03 S           109
874   8 48           B     CTAPE                                    I   4  3296  B S22             109
875   8 49           NOP   TDF4A                                    I   4  3300  N A35             110
876   8 50           B     TRPCK                                    I   4  3304  B B84             110
877   8 51   *
878   8 52   *               DTF  ON  ALTER  MODE
879   8 53   *
880   8 54   ALDTF   SBR   SOFT+3,DELTA                             I   7  3308  H B71 M10          110
881   8 55           B     ALDIO                                    I   4  3315  B B03             110
882   8 56   SAVXX   SBR   SAVXT+3                                  I   4  3319  H C33             110
883   8 57           MCW   LMAINX,AREASV                           I   7  3323  M 086 331         110
884   8 58   SAVXT   B     0                                        I   4  3330  B 000             110
885   8 59   LUNET   SW    READS                                    I   4  3334  , I10             111
886   8 60           MCW   'N',FINAL                               I   7  3338  M I08 B52         111
887   8 61           B     RDT4A                                    I   4  3345  B B41             111
888   8 62   BYPSS   SBR   BYPSX+3                                  I   4  3349  H C80             111
889   8 63           B     CTAPE                                    I   4  3353  B S22             111
890   8 64           NOP   TDF4A                                    I   4  3357  N A35             111
891   8 65           BCE   BYPSS+4,OUTPT+74,Y                       I   8  3361  B C53 I86 Y       111
892   8 66           BCE   BYPSS+4,OUTPT+74,Z                       I   8  3369  B C53 I86 Z       112
893   8 67   BYPSX   B     0                                        I   4  3377  B 000             112
894   8 68   *
895   8 69   *               DTF TABLE OF OPERANDS
896   8 70   *
897   8 71           DCW   '''                  FILETYP              I   1  3381                    112
898   8 72           DCW   '001'                                     I   3  3384                    112
899   8 73           DCW   'INP'                     INPUT           I   3  3387                    112
900   8 74           DCW   '002'                                     I   3  3390                    112
901   8 75           DCW   'OUT'                     OUTPUT          I   3  3393                    112
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SEQ  PG LIN  LABEL  OP   OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
902   8 76          DCW  '003'                                   I   3  3396                    113
903   8 77          DCW  'TAP'                TAPE               I   3  3399                    113
904   8 78          DCW  '004'                                   I   3  3402                    113
905   8 79          DCW  'REA'                READER             I   3  3405                    113
906   8 80          DCW  '005'                                   I   3  3408                    113
907   8 81          DCW  'PUN'                PUNCH              I   3  3411                    113
908   8 82          DCW  '008'                                   I   3  3414                    113
909   8 83          DCW  'CHE'                                   I   3  3417                    114
910   8 84          DCW  '006'                                   I   3  3420                    114
911   8 85    FILXZ DCW  'PRI'                PRINTER            I   3  3423                    114
912   8 86          DCW  '''              MODEPAR                I   1  3424                    114
913   8 87          DCW  '007'                                   I   3  3427                    114
914   8 88    MODXZ DCW  'LOA'                                   I   3  3430                    114
915   8 89          DCW  '''              RECFORM                I   1  3431                    114
916   8 90          DCW  '012'                                   I   3  3434                    115
917   8 91          DCW  'BLO'                BLOCKED            I   3  3437                    115
918   8 92          DCW  '013'                                   I   3  3440                    115
919   8 93          DCW  'UNB'                UNBLOCKED          I   3  3443                    115
920   8 94          DCW  '014'                                   I   3  3446                    115
921   8 95          DCW  'FIX'                     FIXED         I   3  3449                    115
922   8 96          DCW  '015'                                   I   3  3452                    115
923   8 97    RECXZ DCW  'VAR'                VARIABLE           I   3  3455                    116
924   8 98          DCW  '''              TYPELABEL              I   1  3456                    116
925   8 99          DCW  '081'                                   I   3  3459                    116
926   9 00          DCW  'STA'                STANDARD           I   3  3462                    116
927   9 01          DCW  '082'                                   I   3  3465                    116
928   9 02          DCW  'NON'                NONSTANDARD        I   3  3468                    116
929   9 03          DCW  '083'                                   I   3  3471                    116
930   9 04    TYPXZ DCW  'TM '                TM                 I   3  3474                    117
931   9 05          DCW  '''              CHECKLABEL             I   1  3475                    117
932   9 06          DCW  '084'                                   I   3  3478                    117
933   9 07          DCW  'ALL'                ALL                I   3  3481                    117
934   9 08          DCW  '085'                                   I   3  3484                    117
935   9 09    CHEXZ DCW  'IDE'                IDENT              I   3  3487                    117
936   9 10          DCW  '''              REWIND                 I   1  3488                    117
937   9 11          DCW  '199'                                   I   3  3491                    118
938   9 12          DCW  'UNL'                UNLOAD             I   3  3494                    118
939   9 13          DCW  '200'                                   I   3  3497                    118
940   9 14    REWXZ DCW  'NOR'                NOREWD             I   3  3500                    118
941   9 15          DCW  '''                                     I   1  3501                    118
942   9 16          DCW  '201'                                   I   3  3504                    118
943   9 17          DCW  '9  '                                   I   3  3507                    118
944   9 18          DCW  '202'                                   I   3  3510                    119
945   9 19    OVEXZ DCW  '12 '                                   I   3  3513                    119
946   9 20          DCW  '''                                     I   1  3514                    119
947   9 21          DCW  '076'                                   I   3  3517                    119
948   9 22    TOTXZ DCW  'REC'                                   I   3  3520                    119
949   9 23    *
950   9 24    *              DIOCS  CPERAND  TABLE
951   9 25    *
```

SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION TYPE	CARD
952	9	26		DCW	'''		I	1	3521		119
953	9	27		DCW	-MINUS3+4		I	3	3524	I9C	119
954	9	28		DCW	'OUT'		I	3	3527		120
955	9	29		DCW	-MINUS2+4		I	3	3530	I9D	120
956	9	30	TAPTB	DCW	'INP'		I	3	3533		120
957	9	31		DCW	'''		I	1	3534		120
958	9	32		DCW	'045'		I	3	3537		120
959	9	33		DCW	'REL'		I	3	3540		120
960	9	34		DCW	'046'		I	3	3543		120
961	9	35		DCW	'STO'		I	3	3546		121
962	9	36		DCW	'006'		I	3	3549		121
963	9	37	FEATB	DCW	'OVE'	OVERLAP	I	3	3552		121
964	9	38		DCW	'''		I	1	3553		121
965	9	39		DCW	'007'		I	3	3556		121
966	9	40		DCW	'TAP'	TAPE	I	3	3559		121
967	9	41		DCW	'008'		I	3	3562		121
968	9	42		DCW	'REA'	READER	I	3	3565		122
969	9	43		DCW	'009'		I	3	3568		122
970	9	44		DCW	'PUN'	PUNCH	I	3	3571		122
971	9	45		DCW	'010'		I	3	3574		122
972	9	46	IODTB	DCW	'PRI'	PRINTER	I	3	3577		122
973	9	47		DCW	'''		I	1	3578		122
974	9	48		DCW	'011'		I	3	3581		122
975	9	49		DCW	'STA'	STANDARD	I	3	3584		123
976	9	50		DCW	'012'		I	3	3587		123
977	9	51		DCW	'NON'	NONSTANDARD	I	3	3590		123
978	9	52		DCW	'013'		I	3	3593		123
979	9	53		DCW	'MIX'	MIXED	I	3	3596		123
980	9	54		DCW	'014'		I	3	3599		123
981	9	55		DCW	'CHE'	CHECK	I	3	3602		123
982	9	56		DCW	'015'		I	3	3605		124
983	9	57		DCW	'IDE'	IDENT	I	3	3608		124
984	9	58		DCW	'026'		I	3	3611		124
985	9	59		DCW	'RDL'		I	3	3614		124
986	9	60		DCW	'016'		I	3	3617		124
987	9	61	LABTB	DCW	'TM '	TM	I	3	3620		124
988	9	62		DCW	'''		I	1	3621		124
989	9	63		DCW	'018'		I	3	3624		125
990	9	64		DCW	'1 '	EXIT 1	I	3	3627		125
991	9	65		DCW	'019'		I	3	3630		125
992	9	66		DCW	'2 '	EXIT 2	I	3	3633		125
993	9	67		DCW	'020'		I	3	3636		125
994	9	68		DCW	'3 '	EXIT 3	I	3	3639		125
995	9	69		DCW	'021'		I	3	3642		125
996	9	70		DCW	'4 '	EXIT 4	I	3	3645		126
997	9	71		DCW	'022'		I	3	3648		126
998	9	72		DCW	'5 '	EXIT 5	I	3	3651		126
999	9	73		DCW	'023'		I	3	3654		126
1000	9	74		DCW	'6 '	EXIT 6	I	3	3657		126
1001	9	75		DCW	'024'		I	3	3660		126

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 SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1002   9 76          DCW   '7  '                 EXIT 7            I   3  3663                    126
1003   9 77          DCW   '025'                                   I   3  3666                    127
1004   9 78   EXITB  DCW   '8  '                 EXIT 8            I   3  3669                    127
1005   9 79          DCW   '''                                     I   1  3670                    127
1006   9 80          DCW   '027'                                   I   3  3673                    127
1007   9 81          DCW   '729'                 729               I   3  3676                    127
1008   9 82          DCW   '028'                                   I   3  3679                    127
1009   9 83   DRITB  DCW   '733'                 7330              I   3  3682                    127
1010   9 84          DCW   '''                                     I   1  3683                    128
1011   9 85          DCW   '029'                                   I   3  3686                    128
1012   9 86          DCW   'NOR'                 NO RWED           I   3  3689                    128
1013   9 87          DCW   '030'                                   I   3  3692                    128
1014   9 88   RWDTB  DCW   'UNL'                 UNLOAD            I   3  3695                    128
1015   9 89          DCW   '''                                     I   1  3696                    128
1016   9 90          DCW   '037'                                   I   3  3699                    128
1017   9 91          DCW   'REC'                 RECORD            I   3  3702                    129
1018   9 92          DCW   '038'                                   I   3  3705                    129
1019   9 93   COUTB  DCW   'HAS'                 HASH              I   3  3708                    129
1020   9 94          DCW   '''                                     I   1  3709                    129
1021   9 95          DCW   '034'                                   I   3  3712                    129
1022   9 96          DCW   'CLE'                                   I   3  3715                    129
1023   9 97          DCW   '033'                                   I   3  3718                    129
1024   9 98          DCW   'PRO'                                   I   3  3721                    130
1025   9 99          DCW   '032'                                   I   3  3724                    130
1026  10 00   REATB  DCW   'SCA'                                   I   3  3727                    130
1027  10 01   *
1028  10 02   *               DTF  TABLE  OF  LABELS
1029  10 03   *
1030  10 04          DCW   '''                                     I   1  3728                    130
1031  10 05          DCW   'OVE'                 OVERFLOW          I   3  3731                    130
1032  10 06          DCW   'FOR'                 FORMSCNTL         I   3  3734                    130
1033  10 07          DCW   'COB'                 COBOL             I   3  3737                    130
1034  10 08          DCW   'VAR'                 VARBUILD          I   3  3740                    131
1035  10 09          DCW   'CHA'                 CHANDRIVE         I   3  3743                    131
1036  10 10          DCW   'FIL'                 FILETYPE          I   3  3746                    131
1037  10 11          DCW   'MOD'                 MODEPAR           I   3  3749                    131
1038  10 12          DCW   'CAR'                 CARDROC           I   3  3752                    131
1039  10 13          DCW   'ALT'                 ALTTAPE           I   3  3755                    131
1040  10 14          DCW   'REC'                 RECFORM           I   3  3758                    131
1041  10 15          DCW   'SIZ'                 SIZEREC           I   3  3761                    132
1042  10 16          DCW   'PAD'                 PADDING           I   3  3764                    132
1043  10 17          DCW   'BLO'                 BLOCKSIZE         I   3  3767                    132
1044  10 18          DCW   'IOA'                 IOAREAS           I   3  3770                    132
1045  10 19          DCW   'WOR'                 WORKAREA          I   3  3773                    132
1046  10 20          DCW   'IND'                 INDEXREC          I   3  3776                    132
1047  10 21          DCW   'EOF'                 EOFADDR           I   3  3779                    132
1048  10 22          DCW   'WLR'                 WLRADDR           I   3  3782                    133
1049  10 23          DCW   'TOT'                 TOTALS            I   3  3785                    133
1050  10 24          DCW   'TYP'                 TYPELABEL         I   3  3788                    133
1051  10 25          DCW   'CHE'                 CHECKLABEL        I   3  3791                    133
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1052 10 26           DCW   'HEA'              HEADER               I   3  3794                    133
1053 10 27           DCW   'SER'              SERIALNUM            I   3  3797                    133
1054 10 28           DCW   'REE'              REELSEQ              I   3  3800                    133
1055 10 29    DTFLAB DCW   'REW'              REWIND               I   3  3803                    134
1056 10 30    *
1057 10 31    *
1058 10 32    *                 LABEL TABLE
1059 10 33    *
1060 10 34           DCW   '''                                    I   1  3804                    134
1061 10 35           DCW   'TAP'              TAPEUSE              I   3  3807                    134
1062 10 36           DCW   'CHE'              CHECKPOINT           I   3  3810                    134
1063 10 37           DCW   'DIO'              DIOCSORG             I   3  3813                    134
1064 10 38           DCW   'FEA'              FEATURES             I   3  3816                    134
1065 10 39           DCW   'IOD'              IODEVICES            I   3  3819                    134
1066 10 40           DCW   'LAB'              LABELDEF             I   3  3822                    135
1067 10 41           DCW   'ALT'              ALTTAPE              I   3  3825                    135
1068 10 42           DCW   'EXI'              EXITS                I   3  3828                    135
1069 10 43           DCW   'VAR'              VARBUILD             I   3  3831                    135
1070 10 44           DCW   'COU'              COUNTS               I   3  3834                    135
1071 10 45           DCW   'DRI'              DRIVETYPE            I   3  3837                    135
1072 10 46           DCW   'RWD'              RWDOPTION            I   3  3840                    135
1073 10 47           DCW   'REA'              READERROR            I   3  3843                    136
1074 10 48    LBLTBL DCW   'INP'              INPFXNO              I   3  3846                    136
1075 10 49           LTORG *                                      I      3847
                     DCW   'EX'                                   I   2  3848          LIT       136
                           '7'                                    I   1  3849          LIT       136
                           '1 8'                                  I   3  3852          LIT       136
                           '$'                                    I   1  3853          LIT       136
                           ' '                                    I   1  3854          LIT       136
                           '*'                                    I   1  3855          LIT       137
                           '5'                                    I   1  3856          LIT       137
         643               '55555'                                I   5  3861          LIT       137
                           '‡'                                    I   1  3862          LIT       137
         652   SAVXL1      =03                                    I   3  3865          AREA      137
                           ', '                                   I   2  3867          LIT       137
                           '  '                                   I   2  3869          LIT       137
                           '1'                                    I   1  3870          LIT       138
                           '6'                                    I   1  3871          LIT       138
         685               '    '                                 I   5  3876          LIT       138
                           'DTF'                                  I   3  3879          LIT       138
         696               '33333'                                I   5  3884          LIT       138
                           '52'                                   I   2  3886          LIT       138
         731   SAVX2       =03                                    I   3  3889          AREA      138
                           'ALT'                                  I   3  3892          LIT       139
                           'JOB'                                  I   3  3895          LIT       139
                           'CTL'                                  I   3  3898          LIT       139
         802   HLDA1       =04                                    I   4  3902          AREA      139
         806   BALTR       =01                                    I   1  3903          AREA      139
         814   HLDB        =04                                    I   4  3907          AREA      139
                           'N'                                    I   1  3908          LIT       139
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 SEQ  PG  LIN  LABEL   OP    OPERANDS                                  SFX  CT  LOCN  INSTRUCTION  TYPE   CARD
          852  XCARDS        =01                                       I    1  3909              AREA   140
          870  READS         =01                                       I    1  3910              AREA   140
1076  10  50   *
1077  10  51   *               OUTPUT  AREA
1078  10  52   *
1079  10  53          ORG     3912                                      I          3912
1080  10  54   OUTPT  DA      1X86,G                                    I       3912  3997              140
                   DCW     ' '                                       I    1  3998              GMARK  141
1081  10  55   LOPUT  EQU     *                                         I       3998
1082  10  56          EX                                               I             B 000              142
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 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1083 10 57          JOB   1401 AUTOCODER-PASS 2-COPY DTF TABLE -VERSION 3
1084 10 58          SFX   I
1085 10 59          ORG   341                                                I          0341
1086 10 60          DCW   ',                                                 I   1  0341                    145
1087 10 61          DCW   ' '              EXITS   YES                       I   1  0342                    145
1088 10 62          DCW   ' '              COBOL   YES                       I   1  0343                    145
1089 10 63          DCW   =6                                                 I   6  0349                    145
1090 10 64          DCW   ' '        1     INPUT          1    FILETYPE     I   1  0350                    145
1091 10 65          DCW   ' '        2     OUTPUT         2                 I   1  0351                    145
1092 10 66          DCW   ' '        3     TAPE           3                 I   1  0352                    145
1093 10 67          DCW   ' '        4     READER         4                 I   1  0353                    146
1094 10 68          DCW   ' '        5     PUNCH          5                 I   1  0354                    146
1095 10 69          DCW   ' '        6     PRINTER        6                 I   1  0355                    146
1096 10 70          DCW   ' '        7     LOAD           7    MODEPAR      I   1  0356                    146
1097 10 71          DCW   ' '        8     CHECKPOINT     8    FEATURES     I   1  0357                    146
1098 10 72          DCW   ' '        9     NUMBER         9    CHANDRIVE    I   1  0358                    146
1099 10 73          DCW   ' '       10     NUMBER        10    CARDPOC      I   1  0359                    146
1100 10 74          DCW   ' '       11     NUMBER        11    ALTTAPE      I   1  0360                    147
1101 10 75          DCW   ' '       12     BLOCKED       12    RECFORM      I   1  0361                    147
1102 10 76          DCW   ' '       13     UNBLOCKED     13                 I   1  0362                    147
1103 10 77          DCW   ' '       14     MIXED         14                 I   1  0363                    147
1104 10 78          DCW   ' '       15     VARIABLE      15                 I   1  0364                    147
1105 10 79          DCW   '    '    16-19  NUMBER        16    SIZEREC      I   4  0368                    147
1106 10 80          DCW   ' '         20    NUMBER        17    PADDING      I   1  0369                    147
1107 10 81          DCW   '    '      21-24 NUMBER        18    BLOCKSIZE    I   4  0373                    148
1108 10 82          DCW   '       '    25-34    LABELS     19    IOAREAS      I  10  0383                    148
1109 10 83          DCW   '       '    35-44               20                 I  10  0393                    148
1110 10 84          DCW   '       '   45-54  LABEL         21    WORKAREA     I  10  0403                    148
1111 10 85          DCW   ' '         55    NUMBER        22    INDEXREG     I   1  0404                    148
1112 10 86          DCW   '       '    56-65  LABEL        23    EORADDR      I  10  0414                    149
1113 10 87          DCW   '       '     66-75  LABEL       24    WLRADDR      I  10  0424                    149
1114 10 88          DCW   ' '         76    RECORD        25    TOTALS       I   1  0425                    149
1115 10 89          DCW   '    '      77-80 HASH          26                 I   4  0429                    149
1116 10 90          DCW   ' '         81    STANDARD      27    TYPELABEL    I   1  0430                    149
1117 10 91          DCW   ' '         82    NONSTANDARD   28                 I   1  0431                    149
1118 10 92          DCW   ' '         83    TM            29                 I   1  0432                    149
1119 10 93          DCW   ' '         84    ALL           30    CHECKLABEL   I   1  0433                    150
1120 10 94          DCW   ' '         85    IDENT         31                 I   1  0434                    150
1121 10 95          DCW   '   '                                              I   3  0437                    150
1122 10 96          DCW   '     '                                            I   5  0442                    150
1123 10 97          DCW   '       '                                          I  10  0452                    150
1124 10 98          DCW   '    '       104-108 NUMBER      35    SERIALNUM    I   5  0457                    150
1125 10 99          DCW   '       '     109-118             39    EX1ADDR      I  10  0467                    150
1126 11 00          DCW   '       '     119-128             40    EX2ADDR      I  10  0477                    151
1127 11 01          DCW   '       '     129-138             41    EX3ADDR      I  10  0487                    151
1128 11 02          DCW   '       '     139-148             42    EX4ADDR      I  10  0497                    151
1129 11 03          DCW   '       '     149-158             43    EX5ADDR      I  10  0507                    152
1130 11 04          DCW   '       '     159-168             44    EX6ADDR      I  10  0517                    152
1131 11 05          DCW   '       '     169-178             45    EX7ADDR      I  10  0527                    152
1132 11 06          DCW   '       '     179-188             46    EX8ADDR      I  10  0537                    153
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 SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1133 11 07          DCW   '          '  189-198          47   VARBUILD      I  10  0547                    153
1134 11 08          DCW   ' '           199  UNLOAD       37   REWIND        I   1  0548                    153
1135 11 09          DCW   ' '           200  NOREWD       38                 I   1  0549                    153
1136 11 10          DCW   ' '            9     201              OVERFLOW     I   1  0550                    153
1137 11 11          DCW   ' '           12     202                           I   1  0551                    153
1138 11 12          DCW   '   '         203-205  NUMBER          REELSEQ     I   3  0554                    153
1139 11 13          DCW   ' '              206                   FORMCNTL     I   1  0555                    154
1140 11 14          DCW   =9                                                 I   9  0564                    154
1141 11 15          DCW   ' '            216     ADDRESS         OVERFLOW     I   1  0565                    154
1142 11 16          DCW   ' '                                                I   1  0566                    154
1143 11 17          DCW   ' '                                                I   1  0567                    154
1144 11 18  DTFGM   DCW   ' '                                                I   1  0568                    154
1145 11 19          EX                                                       I          B 000               155
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 SEQ PG LIN  LABEL   OP     OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1146 11 20           JOB    1401 AUTOCODER-PASS 2-ALTER OVERLAY -VERSION 3
1147 11 21           SFX    I
1148 11 22           ORG    101                                      I          0101
1149 11 23    *
1150 11 24    *
1151 11 25    *                CTL  CARD  ON  TAPE  4
1152 11 26    *
1153 11 27    PUNCH  CW     GMOVL2                                   I   4  0101  ) 332              158
1154 11 28           BSP    1                                        I   5  0105  U (U1 B            158
1155 11 29           BSP    1                                        I   5  0110  U (U1 B            158
1156 11 30           B      ALTER                                    I   4  0115  B P63              158
1157 11 31    OUTCL  MCW    OUTPT+85,LMAINX                          I   7  0119  M I97 086          158
1158 11 32           BSS    PREPS2,C                                 I   5  0126  B 662 C            158
1159 11 33    NOSOL  SBR    RSOLV+7,NOALTB                           I   7  0131  H 182 Q20          158
1160 11 34    *
1161 11 35    *                CTL  CARD  FROM  CARDS
1162 11 36    *
1163 11 37    CRDCL  BCE    LEAVE,MAINX+23,1                         I   8  0138  B 167 024 1        159
1164 11 38           MN     MAINX+21,*+8                             I   7  0146  D 022 160          159
1165 11 39           BCE    LEAVE,'456',                             I   8  0153  B 167 237          159
1166 11 40           CHAIN  2                                                                  MACRO
1167                 BCE                                             I   1  0161  B           GEN    159
1168                 BCE                                             I   1  0162  B           GEN    159
1169 11 41           B      LETBE                                    I   4  0163  B 171              159
1170 11 42    LEAVE  S      SPECL                                    I   4  0167  S 337              159
1171 11 43    LETBE  B      NOPCL                                    I   4  0171  B 183              160
1172 11 44    RSOLV  B      WRTREC                                   I   4  0175  B 721              160
1173 11 45           B      WRTAL                                    I   4  0179  B +37              160
1174 11 46    *
1175 11 47    NOPCL  SBR    NPCLX+3                                  I   4  0183  H 204              160
1176 11 48           MCW    'N',ALTS2                                I   7  0187  M 238 Q67          160
1177 11 49           MCW    'N',ALTS4                                I   7  0194  M 238 +82          160
1178 11 50    NPCLX  B      0                                        I   4  0201  B 000              160
1179 11 51    NOPJB  SBR    NPJBX+3                                  I   4  0205  H 219              161
1180 11 52           SW     ALTS1+4,ALTS3+4                          I   7  0209  , Q51 +66          161
1181 11 53    NPJBX  B      0                                        I   4  0216  B 000              161
1182 11 54    NOTER  MCW    OUTPT+85,LMAINX                          I   7  0220  M I97 086          161
1183 11 55           B      WRTREC                                   I   4  0227  B 721              161
1184 11 56    CHUCK  B      NOALTB                                   I   4  0231  B Q20              161
1185 11 57           LTORG  *                                        I          0235
                     DCW    '456'                                    I   3  0237            LIT    161
                            'N'                                      I   1  0238            LIT    162
1186 11 58           ORG    246                                      I          0246
1187 11 59           DA     1X86                                     I      0246  0331               162
1188 11 60    AREASV EQU    *                                        I      0331
1189 11 61    GMOVL2 DCW    ' '                                      I   1  0332               163
1190 11 62           EX                                              I          B 000              164
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1191 11 63           JOB   1401 AUTOCODER - PASS 2 - END OVERLAY - VERSION 3
1192 11 64           SFX   I
1193 11 65           ORG   341                                       I          0341
1194 11 66   OVLY3   MN    '5',TDF6+4                                I   7  0341  D 432 768          167
1195 11 73           SBR   LONG+3,'N'                                I   7  0348  H J60 433          167
1196 11 74           LCA   186,LMAINX                                 I   7  0355  L 186 086          167
1197 11 75           B     NEWWRT                                    I   4  0362  B J35              167
1198 11 76           CW    OUTPT+80                                  I   4  0366  ) I92              167
1199 11 77           SW    GMOVL4                                    I   4  0370  , 606              167
1200 11 78           MCW   GMWMRK,GMOVL4                            I   7  0374  M 773 606          168
1201 11 79           B     CTAPE                                     I   4  0381  B S22              168
1202 11 80           NOP   TDF9                                     I   4  0385  N 412              168
1203 11 81           CW    GMOVL4                                    I   4  0389  ) 606              168
1204 11 82           RWD   5                                         I   5  0393  U (U5 R            168
1205 11 83           B     CTAPE                                     I   4  0398  B S22              168
1206 11 84           NOP   TDFSYS                                   I   4  0402  N 423              168
1207 11 85           B     1900                                      I   4  0406  B Z00              169
1208 11 86   TDF9    DCW   =3                                        I   3  0412                     169
1209 11 87           WTW   5,OVLY4                                   I   8  0413  L (U5 434 W        169
1210 11 88   TDFSYS  DCW   =3                                        I   3  0423                     169
1211 11 89           RTW   1,1650                                    I   8  0424  L (U1 W50 R        169
1212 11 92   *
1213 11 93           LTORG *                                         I          0432
                     DCW   '5'                                       I   1  0432            LIT     169
                           'N'                                       I   1  0433            LIT     169
1214 11 94   OVLY4   EQU   *+1                                       I      0434
1215 11 95           SFX   X
1216 11 96   *     END OF JOB
1217 11 97   *
1218 11 98           C     CALLTX,BLANKS-2                           X   7  0434  C -73 W14          170
1219 11 99           BE    STENDX                                    X   5  0441  B 450 S            170
1220 12 00           B     SUREXX                                    X   4  0446  B T08              170
1221 12 01   STENDX  B     SBROTX                                    X   4  0450  B 033              170
1222 12 02           RWD   5                                         X   5  0454  U (U5 R            170
1223 12 03           BSP   1                                         X   5  0459  U (U1 B            170
1224 12 04           BSP   1                                         X   5  0464  U (U1 B            170
1225 12 05           WTM   6                                         X   5  0469  U (U6 M            171
1226 12 06           RWD   6                                         X   5  0474  U (U6 R            171
1227 12 07           MCW   SYMNMX,MAINX+2                          X   7  0479  M W01 003          171
1228 12 08           LCA   LOPUT+1,MAINX+35                        X   7  0486  L I98 036          171
1229 12 09           WT    5,MAINX                                   X   8  0493  M (U5 001 W        171
1230 12 10           WTM   5                                         X   5  0501  U (U5 M            171
1231 12 11           RWD   4                                         X   5  0506  U (U4 R            172
1232 12 12           CW    LIPUT+1,MAINX+35                          X   7  0511  ) 187 036          172
1233 12 13           CW    100                                       X   4  0518  ) 100              172
1234 12 14   BYPASX  RT    1,3997                                    X   8  0522  M (U1 I97 R        172
1235 12 15           SW    LOPUT+1                                   X   4  0530  , I98              172
1236 12 16           BEF   CBSP2X                                    X   5  0534  B 543 K            172
1237 12 17           B     BYPASX                                    X   4  0539  B 522              172
1238 12 18   CBSP2X  RT    1,3997                                    X   8  0543  M (U1 I97 R        173
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1239 12 19           SW    LOPUT+1                                  X  4  0551  , I98             173
1240 12 20           S     +1,CBSP1X                                X  7  0555  S 605 604         173
1241 12 21           BM    CBSP3X,CBSP1X                            X  8  0562  V 574 604 K       173
1242 12 22           B     CBSP2X                                   X  4  0570  B 543             173
1243 12 23    *
1244 12 24    *  LOAD PASS THREE
1245 12 25    *
1246 12 26    CBSP3X CS    PARTB                                    X  4  0574  / 466             173
1247 12 27           CS                                            X  1  0578  /                   173
1248 12 28           CS                                            X  1  0579  /                   174
1249 12 29           B     CTAPE                                    X  4  0580  B W50             174
1250 12 30           NOP   TDFEOJ                                   X  4  0584  N 594             174
1251 12 31           B     2465                                     X  4  0588  B M65             174
1252 12 32    TDFEOJ DCW   +CCHALT                                  X  3  0594  Y34               174
1253 12 33           RTW   1,2210                                   X  8  0595  L (U1 K10 R       174
1254 12 34    CBSP1X DCW   '11'                                     X  2  0604                   174
1255 12 35    *
1256 12 36           LTORG *                                       X           0605
                     DCW   +1                                      X  1  0605            LIT    175
1257 12 37    GMOVL4 DCW   ' '                                     X  1  0606                   175
1258 12 38           EX                                            X        B 000               176
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1259 12 39          JOB   1401 AUTOCODER - PASS 2 - ALTER ASSEMBLY - VERSION 3
1260 12 40   *
1261 12 41   *    AREA DEFINITIONS
1262 12 42   *
1263 12 43          SFX   B
1264 12 44          ORG   1                                         B            0001
1265 12 45          DA    1X86      MAIN                            B     0001   0086                179
1266 12 46          EQU   *         LMAIN                           B     0086
1267 12 47          ORG   87                                        B            0087
1268 12 48          DCW   000       INDEX1                          B  3  0089                       179
1269 12 49          DC    00                                        B  2  0091                       179
1270 12 50          DCW   000       INDEX2                          B  3  0094                       179
1271 12 51          DC    00                                        B  2  0096                       179
1272 12 52          DCW   000       INDEX3                          B  3  0099                       179
1273 12 53          DC    00                                        B  2  0101                       179
1274 12 54          ORG   100                                       B            0100
1275 12 55          DC    ' '                                       B  1  0100                       180
1276 12 56          DA    1X86      INPUT                           B     0101   0186                180
1277 12 57          DC    ' '        LIPUT+1                        B  1  0187                       181
1278 12 58          DC    0         ZEROX                           B  1  0188                       181
1279 12 59          DC    0         CARDSX                          B  1  0189                       181
1280 12 60          DCW   '***'     HLDSBX                          B  3  0192                       181
1281 12 61   *
1282 12 62   *         INITIALIZATION
1283 12 63   *
1284 12 64          ORG   101                                       B             0101
1285 12 65   VOICE  CS    CALLTX                                    B  4  0101  / -73                182
1286 12 66          CS                                              B  1  0105  /                     182
1287 12 67   IOCALT CS    LMAINX                                    B  4  0106  / 086                182
1288 12 68          B     CTAPEX                                    B  4  0110  B W50                 182
1289 12 69          NOP   TDFIO5                                    B  4  0114  N 132                 182
1290 12 70          BCE   IOCEOF,MAINXX+73,N                        B  8  0118  B 141 074 N           182
1291 12 71          B     YOURS                                     B  4  0126  B 541                 182
1292 12 72   TDFIO5 DCW   +IOCEOF                                   B  3  0132  141                   183
1293 12 73          RT    5,MAINXX                                  B  8  0133  M (U5 001 R           183
1294 12 74   IOCEOF MCW   '1',HAPPYX+4                              B  7  0141  M 172 N74             183
1295 12 75          MCW   '/086'                                    B  4  0148  M 176                 183
1296 12 76          B     OKAY                                      B  4  0152  B 467                 183
1297 12 77   STRING CS    LMAINX                                    B  4  0156  / 086                183
1298 12 78          B     CTAPEX                                    B  4  0160  B W50                 183
1299 12 79          NOP   TDFIO5                                    B  4  0164  N 132                 184
1300 12 80          B     HAPPYX+5                                  B  4  0168  B N75                 184
1301 12 81          LTORG *                                         B             0172
                    DCW   '1'                                       B  1  0172              LIT     184
                          '/086'                                    B  4  0176              LIT     184
1302 12 82   *
1303 12 83   *    PARAMETER TABLE
1304 12 84   *
1305 12 85          ORG   201                                       B             0201
1306 12 86          DA    1X266                                     B     0201    0466                184
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1307 12 87           261,266  PARTBB                             B      0466              FIELD  184
1308 12 88  *
1309 12 89  *     PROCESS EX
1310 12 90  *
1311 12 91  OKAY   SBR   SWITCH+3,CMALTB                         B   7  0467  H L04 510          185
1312 12 92  EXSET  C     CALLTX,BLANKS-2    Q. ANY CALLS       B   7  0474  C -73 W14          185
1313 12 93         BE    PREEM                                 B   5  0481  B 506 S           185
1314 12 94  ATLSA  B     SUREXX                                B   4  0486  B T08             185
1315 12 95         B     PREEM                                 B   4  0490  B 506             185
1316 12 96  LORGS  C     CALLTX,BLANKS-2    Q. ANY CALLS       B   7  0494  C -73 W14          185
1317 12 97         BU    HAULIT                                B   5  0501  B S64 /           185
1318 12 98  PREEM  B     CARDS                                 B   4  0506  B 525             186
1319 12 99  *
1320 13 00  *      INPUT ROUTINE
1321 13 01  *
1322 13 02  CMALT  BSS   LSTCD,C          Q.  NO ALTERS        B   5  0510  B 686 C           186
1323 13 03         BSS   LSTCD,A          Q. NO MORE ALTERS    B   5  0515  B 686 A           186
1324 13 04         CS    LMAINX                                B   4  0520  / 086             186
1325 13 05         R                                           B   1  0524  1                 186
1326 13 06  CARDS  SBR   PREEM+3,SBRCTX                        B   7  0525  H 509 033         186
1327 13 07         MCW   'SCR',CHARCR                          B   7  0532  M ǂ15 U62         186
1328 13 08         MCW                                         B   1  0539  M                 187
1329 13 09         MCW                                         B   1  0540  M                 187
1330 13 10  YOURS  C     MAINXX+17,'ALT'                       B   7  0541  C 018 ǂ18         187
1331 13 11         BCE   TREAD,MAINXX+5,*                      B   8  0548  B 697 006 *       187
1332 13 12         BU    TREAD                                 B   5  0556  B 697 /           187
1333 13 13         S     INDEX1+1                              B   4  0561  S 090             187
1334 13 14         B     SCANXX                                B   4  0565  B M19             187
1335 13 15         ZA    MAINXX+18+X1,HLDA1=4                  B   7  0569  + 0/9 ǂ22         188
1336 13 16  ALTR4  B     CTAPEX               GET NEXT RECORD  B   4  0576  B W50             188
1337 13 17         NOP   TDFRAL                                B   4  0580  N 922             188
1338 13 18         MCW   'R',OUTPTX+84                         B   7  0584  M ǂ23 I96         188
1339 13 19         SW    LOPUTX+1                              B   4  0591  , I98             188
1340 13 20         C     OUTPTX+83,HLDA1                       B   7  0595  C I95 ǂ22         188
1341 13 21  CALTR  BE    ALTR3                Q.  ALTER NUMBER EQUAL TO  B  5  0602  B 631 S  188
1342 13 22         C     OUTPTX+17,'END'      NUMBER ON ALTER CARD       B  7  0607  C I29 ǂ26  189
1343 13 23         BE    ENDST                NO. WRITE TAPE             B  5  0614  B ǂ02 S   189
1344 13 24         B     CTAPEX                                          B  4  0619  B W50     189
1345 13 25         NOP   TDF6 X                                         B  4  0623  N 024     189
1346 13 26         B     ALTR4                                           B  4  0627  B 576     189
1347 13 27  ALTR3  BCE   ALTR5,MAINXX+19+X1,,                           B  8  0631  B 651 0S0 , 189
1348 13 28         B     CTAPEX               Q. DLEETION                B  4  0639  B W50     189
1349 13 29         NOP   TDF6 X                                         B  4  0643  N 024     190
1350 13 30         B     SWITCH                                          B  4  0647  B L01     190
1351 13 31  ALTR5  B     SCANXX                                          B  4  0651  B M19     190
1352 13 32         ZA    MAINXX+18+X1,HLDA1                            B  7  0655  + 0/9 ǂ22  190
1353 13 33  ALTR6  C     OUTPTX+83,HLDA1                               B  7  0662  C I95 ǂ22  190
1354 13 34         BE    MACRO                DELETE UNTIL SECOND ALTER  B  5  0669  B 931 S  190
1355 13 35         B     CTAPEX               NUMBER IS REACHED          B  4  0674  B W50     190
1356 13 36         NOP   TDFRAL                                         B  4  0678  N 922     191
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1357 13 37           B     ALTR6                                   B   4  0682  B 662             191
1358 13 38   LSTCD   MCW   'N',CALTR                              B   7  0686  M ‡27 602          191
1359 13 39           B     ALTR4                                   B   4  0693  B 576             191
1360 13 40   *
1361 13 41   *               MAJOR PROCESSING
1362 13 42   *
1363 13 43   TREAD   SW    1                                       B   4  0697  , 001             191
1364 13 44           SBR   BRNCHX+3,SWITCH                        B   7  0701  H 099 L01         191
1365 13 45           BCE   HOMEXX,MAINXX+5,*                      B   8  0708  B 048 006 *       191
1366 13 46           C     MAINXX+17,'MLC'                         B   7  0716  C 018 ‡30         192
1367 13 47           BE    HOMEXX                                  B   5  0723  B 048 S           192
1368 13 48           C     MAINXX+17,'CHA'                         B   7  0728  C 018 ‡33         192
1369 13 49           BE    CHAINX                                  B   5  0735  B H11 S           192
1370 13 50           C     MAINXX+17,'ENT'    Q. ENTER CARD        B   7  0740  C 018 ‡36         192
1371 13 51           BE    ENTST                                   B   5  0747  B 879 S           192
1372 13 52   SWMA1   C     MAINXX+17,'MA '    Q. MODIFY ADDRESS MACRO B   7  0752  C 018 ‡39      193
1373 13 53   SWMA2   BE    MASETX                                  B   5  0759  B U33 S           193
1374 13 54           C     MAINXX+17,'EX '    Q. EX CARD           B   7  0764  C 018 ‡42         193
1375 13 55           BE    EXSET                                   B   5  0771  B 474 S           193
1376 13 56           C     MAINXX+17,'END'    Q. END CARD          B   7  0776  C 018 ‡26         193
1377 13 57           BE    ENDSTX                                  B   5  0783  B U78 S           193
1378 13 58           C     MAINXX+18,WHOOPS   Q.  CALL STATEMENT   B   7  0788  C 019 W05         194
1379 13 59           BE    CALLNX                                  B   5  0795  B J51 S           194
1380 13 60           C     MAINXX+19,INCLDX                        B   7  0800  C 020 U59         194
1381 13 61           BE    CALLNX                                  B   5  0807  B J51 S           194
1382 13 62           C     MAINXX+19,LITORG-1                      B   7  0812  C 020 T57         194
1383 13 63           BE    LORGS                                   B   5  0819  B 494 S           194
1384 13 64           SBR   INDEX3,TABLEI      Q. GET, PUT, OPEN OR CLOSE B   7  0824  H 099 T74   195
1385 13 65   COMIOC  C     MAINXX+17,0+X3                          B   7  0831  C 018 0+0         195
1386 13 66           SBR   INDEX3                                  B   4  0838  H 099             195
1387 13 67           BE    MSUBTX                                  B   5  0842  B P00 S           195
1388 13 68           BCE   OUTIOC,0+X3,=                           B   8  0847  B 859 0+0 =       195
1389 13 69           B     COMIOC                                  B   4  0855  B 831             195
1390 13 70   OUTIOC  BCE   HOMEXX,MAINXX+19,                       B   8  0859  B 048 020         196
1391 13 71           BCE   HOMEXX,MAINXX+15,                       B   8  0867  B 048 016         196
1392 13 72           B     MSUBTX             NO. MACRO            B   4  0875  B P00             196
1393 13 73   *
1394 13 74   *      PROCESS FIXED FORM RECORD
1395 13 75   *
1396 13 76   ENTST   B     SBROTX                                  B   4  0879  B 033             196
1397 13 77           R                                             B   1  0883  1                 196
1398 13 78           BCE   ENTST,MAINXX+7,*                        B   8  0884  B 879 008 *       196
1399 13 79           C     MAINXX+15,'END'    Q. END CARD          B   7  0892  C 016 ‡26         197
1400 13 80           BE    ENDSTX                                  B   5  0899  B U78 S           197
1401 13 81           C     MAINXX+15,'ENT'    Q. NEW MODE          B   7  0904  C 016 ‡36         197
1402 13 82           BU    ENTST                                   B   5  0911  B 879 /           197
1403 13 83           B     PREEM                                   B   4  0916  B 506             197
1404 13 84   TDFRAL  DCW   000                                     B   3  0922                    197
1405 13 85           DCW   'M(U4I12R'                              B   8  0930                    197
1406 13 86   *
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 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1407 13 87   *     DELETE ENTIRE MACRO
1408 13 88   *
1409 13 89   MACRO BCE   OUTMC,OUTPTX+74,R                  B   8   0931  B 943 I86 R        198
1410 13 90         B     SWITCH                            B   4   0939  B L01             198
1411 13 91   OUTMC B     CTAPEX                            B   4   0943  B W50             198
1412 13 92         NOP   TDFRAL                           B   4   0947  N 922             198
1413 13 93         C     OUTPTX+19,BLANKS                  B   7   0951  C I31 W16         198
1414 13 94   MCOUT BE    OUTMC                             B   5   0958  B 943 S           198
1415 13 95         MCW   'N',MCOUT                        B   7   0963  M ‡27 958         198
1416 13 96         BCE   OUTMC,OUTPTX+74,S                 B   8   0970  B 943 I86 S       199
1417 13 97         BCE   OUTMC,OUTPTX+74,C                 B   8   0978  B 943 I86 C       199
1418 13 98         BSP   4                                 B   5   0986  U (U4 B           199
1419 13 99         MCW   OUTMC,MCOUT                       B   7   0991  M 943 958         199
1420 14 00         B     CMALT                             B   4   0998  B 510             199
1421 14 01   *
1422 14 02   *   PROCESS END CARD
1423 14 03   *
1424 14 04   ENDST MCW   LOPUTX,LMAINX                     B   7   1002  M I97 086         199
1425 14 05         B     ENDSTX                            B   4   1009  B U78             200
1426 14 06         LTORG *                                 B             1013
                   DCW   'SCR'                             B   3   1015            LIT    200
                         'ALT'                             B   3   1018            LIT    200
      1335 HLDA1         =04                               B   4   1022            AREA   200
                         'R'                               B   1   1023            LIT    200
                         'END'                             B   3   1026            LIT    200
                         'N'                               B   1   1027            LIT    200
                         'MLC'                             B   3   1030            LIT    201
                         'CHA'                             B   3   1033            LIT    201
                         'ENT'                             B   3   1036            LIT    201
                         'MA '                             B   3   1039            LIT    201
                         'EX '                             B   3   1042            LIT    201
1427 14 07   GM2XXX DCW   ' '                             B   1   1043                   201
1428 14 08   NUORIG EQU   *+1                             B       1044
1429 14 09         EX                                    B             B 000             202
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 SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD
1430 14 10          JOB   1401 AUTOCODER - PASS 2 - INITIAL ASSEMBLY VERSION 3
1431 14 11   *
1432 14 12   *         AREA DEFINITION
1433 14 13   *
1434 14 14          SFX   A
1435 14 15          ORG   1                                               A          0001
1436 14 16   MAINXX DA    1X86                                            A     0001 0086              205
1437 14 17          ORG   87                                              A          0087
1438 14 18          DCW   '000'                                           A  3  0089                   205
1439 14 19          DC    00                                              A  2  0091                   205
1440 14 20          DCW   '000'                                           A  3  0094                   205
1441 14 21          DC    00                                              A  2  0096                   205
1442 14 22          DCW   '000'                                           A  3  0099                   205
1443 14 23          DC    00                                              A  2  0101                   205
1444 14 24          ORG   101                                             A          0101
1445 14 25          DA    1X86          INPUTX                            A     0101 0186              205
1446 14 26   LIPUTX EQU   *                                               A     0186
1447 14 27          DC    ' '                                             A  1  0187                   206
1448 14 28   ZEROXX DC    0                                               A  1  0188                   206
1449 14 29   CARDSX DC    0                                               A  1  0189                   206
1450 14 30   HLDSBX DCW   '***'                                           A  3  0192                   206
1451 14 31   *
1452 14 32   *     INITIALIZATION
1453 14 33   *
1454 14 34          ORG   100                                             A          0100
1455 14 35          DC    ' '                                             A  1  0100                   207
1456 14 36   START  CS    CALLTX                                          A  4  0101  / -73             207
1457 14 37          CS                                                    A  1  0105  /                  207
1458 14 371         BCE   *+5,CARDSX,1                                    A  8  0106  B 118 189 1       207
1459 14 372         B     RED                                             A  4  0114  B 132             207
1460 14 373         MCW   'N',RHO+1                                       A  7  0118  M 959 764         208
1461 14 374         MCW   'N',TSTEN+5                                     A  7  0125  M 959 780         208
1462 14 380  RED    SW    NTPER+4                                         A  4  0132  , 885             208
1463 14 39          SW    TSTEN+4                                         A  4  0136  , 779             208
1464 14 40          SW    OUTS2+4                                         A  4  0140  , 762             208
1465 14 41          BCE   READT,IOCSAV-3,*                               A  8  0144  B 467 H07 *       208
1466 14 42          MCW   'N',SWMA1                                       A  7  0152  M 959 526         209
1467 14 43          MCW   'N',SWMA2                                       A  7  0159  M 959 533         209
1468 14 44          B     READT                                           A  4  0166  B 467             209
1469 14 45          ORG   201                                             A          0201
1470 14 46          DA    1X266                                           A     0201 0466              209
1471 14 47   PARTBX         261,266                                       A     0466           FIELD   209
1472 14 48   *
1473 14 49   *   MAJOR PROCESSING
1474 14 50   *
1475 14 51   READT  B     TWEDB               GET NEXT RECORD            A  4  0467  B 653             210
1476 14 52   TREAD  SW    1                                              A  4  0471  , 001             210
1477 14 53          SBR   BRNCHX+3,READT                                  A  7  0475  H 099 467         210
1478 14 54          BCE   OUTS2,MAINXX+5,*    Q. COMMENTS CARD           A  8  0482  B 758 006 *       210
1479 14 55          C     MAINXX+19,'CHAIN'                              A  7  0490  C 020 964         210
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 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1480 14 56          BE    CHAINX                            A   5   0497  B H11 S           210
1481 14 57          C     MAINXX+19,'MLCWA'                 A   7   0502  C 020 969         211
1482 14 58          BE    OUTS2                             A   5   0509  B 758 S           211
1483 14 59          C     MAINXX+17,'ENT'    Q. ENTER CARD  A   7   0514  C 018 972         211
1484 14 60          BE    ENTST                             A   5   0521  B 795 S           211
1485 14 61  SWMA1   C     MAINXX+19,'MA   '  Q. MODIFY ADDRESS MACRO  A  7  0526  C 020 977  211
1486 14 62  SWMA2   BE    MASETX                            A   5   0533  B U33 S           211
1487 14 63          C     MAINXX+19,'EX   '  Q. EX CARD     A   7   0538  C 020 982         212
1488 14 64          BE    EXSET                             A   5   0545  B 857 S           212
1489 14 65          C     MAINXX+17,'END'    Q. END CARD    A   7   0550  C 018 985         212
1490 14 66          BE    ENDSTX                            A   5   0557  B U78 S           212
1491 14 67          C     MAINXX+18,WHOOPS                  A   7   0562  C 019 W05         212
1492 14 68          BE    CALLNX             Q. CALL STATEMENT  A  5   0569  B J51 S           212
1493 14 69          C     MAINXX+19,INCLDX                  A   7   0574  C 020 U59         213
1494 14 70          BE    CALLNX                            A   5   0581  B J51 S           213
1495 14 71          C     MAINXX+19,'LTORG'                 A   7   0586  C 020 990         213
1496 14 72          BE    LORGS              Q. LTORG CARD  A   5   0593  B 918 S           213
1497 14 73          SBR   INDEX3,TABLEI                     A   7   0598  H 099 T74         213
1498 14 74  FEW     C     MAINXX+17,0+X3                    A   7   0605  C 018 0+0         213
1499 14 75          SBR   INDEX3                           A   4   0612  H 099             214
1500 14 76          BE    MSUBTX                            A   5   0616  B P00 S           214
1501 14 77          BCE   MANY,0+X3,=                      A   8   0621  B 633 0+0 =       214
1502 14 78          B     FEW                               A   4   0629  B 605             214
1503 14 79  MANY    BCE   OUTS2,MAINXX+19,                  A   8   0633  B 758 020         214
1504 14 80          BCE   OUTS2,MAINXX+15,                  A   8   0641  B 758 016         214
1505 14 81          B     MSUBTX             NO. MACRO      A   4   0649  B P00             215
1506 14 82  *
1507 14 83  *      INPUT ROUTINE
1508 14 84  *
1509 14 85  TWEDB   SBR   TWDB1+3                           A   4   0653  H 696             215
1510 14 86          CS    LMAINX                            A   4   0657  / 086             215
1511 14 87          B     RTWED                             A   4   0661  B 677             215
1512 14 88  CHART   C                                       A   1   0665  C                 215
1513 14 89          BSS   EOF4,A              Q. LAST CARD   A   5   0666  B 934 A           215
1514 14 90          R                                       A   1   0671  1                 215
1515 14 91          SSB   TWDB1,1                          A   5   0672  K 693 1           216
1516 14 92  RTWED   B     CTAPEX                            A   4   0677  B W50             216
1517 14 93          NOP   TDF4                            A   4   0681  N 699             216
1518 14 94          BCE   CHANGE,MAINXX+73,N                A   8   0685  B 708 074 N       216
1519 14 95  TWDB1   B     TREAD                             A   4   0693  B 471             216
1520 14 96  TDF4    DCW   +EOF4                           A   3   0699  934               216
1521 14 97          DCW   'M(U5001R'                        A   8   0707                    216
1522 14 98  CHANGE  CW    CHART,TSTEN+4                     A   7   0708  ) 665 779         217
1523 14 99          MN    '4',TDF4+4                        A   7   0715  D 991 703         217
1524 15 00          CW    OUTS2+4,NTPER+4                   A   7   0722  ) 762 885         217
1525 15 01          C     CALLTX,BLANK                      A   7   0729  C -73 999         217
1526 15 02          BE    HOOHA                             A   5   0736  B 745 S           217
1527 15 03          B     SUREXX                            A   4   0741  B T08             217
1528 15 04  HOOHA   MCW   'SCR',CHARCR                      A   7   0745  M 994 U62         218
1529 15 05          MCW                                     A   1   0752  M                 218
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 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1530 15 06          MCW                                     A   1  0753  M                 218
1531 15 07          B     TWDB1                             A   4  0754  B 693             218
1532 15 08    *
1533 15 09    *     READ RELEASE
1534 15 10    *
1535 15 11    OUTS2 BSS   OUTSBX,C          Q. TAPE INPUT   A   5  0758  B 041 C           218
1536 15 12    RHO   NOP                                     A   1  0763  N                 218
1537 15 13          MCW   '8',RHO                           A   7  0764  M 995 763         218
1538 15 14          B     OUTSBX                            A   4  0771  B 041             219
1539 15 15    *
1540 15 16    *     FIXED FORM RECORDS
1541 15 17    *
1542 15 18    TSTEN BSS   ENTST,C           Q. TAPE INPUT   A   5  0775  B 795 C           219
1543 15 19          SRF                     NO. START RAD FEED A   1  0780  8             219
1544 15 20          SBR   NOSIR+3,ANTST                     A   7  0781  H 917 803         219
1545 15 21          MCW   'N',BUT1XX                        A   7  0788  M 959 037         219
1546 15 22    ENTST B     SBROTX                            A   4  0795  B 033             219
1547 15 23          B     TWEDB                             A   4  0799  B 653             219
1548 15 24    ANTST MCW   'B',BUT1XX                        A   7  0803  M 996 037         220
1549 15 25          SBR   NOSIR+3,TREAD                     A   7  0810  H 917 471         220
1550 15 26          BCE   TSTEN,MAINXX+7,*                  A   8  0817  B 775 008 *       220
1551 15 27          C     MAINXX+15,'END'   Q. END CARD     A   7  0825  C 016 985         220
1552 15 28          BE    ENDSTX                            A   5  0832  B U78 S           220
1553 15 29          C     MAINXX+15,'ENT'   Q. NEW MODE     A   7  0837  C 016 972         221
1554 15 30          BU    TSTEN                             A   5  0844  B 775 /           221
1555 15 31          B     SBROTX                            A   4  0849  B 033             221
1556 15 32          B     READT                             A   4  0853  B 467             221
1557 15 33    *
1558 15 34    *     PROCESS EX
1559 15 35    *
1560 15 36    EXSET C     CALLTX,BLANK=3    Q. ANY CALLS    A   7  0857  C -73 999         221
1561 15 37          BE    OUTS2                             A   5  0864  B 758 S           221
1562 15 38          B     SUREXX                            A   4  0869  B T08             221
1563 15 39          B     SBROTX                            A   4  0873  B 033             222
1564 15 40          B     READT                             A   4  0877  B 467             222
1565 15 41    *
1566 15 42    *     READ RELEASE REDUNDANCY ROUTINE
1567 15 43    *
1568 15 44    NTPER BSS   YESIR,C           Q. TAPE INPUT   A   5  0881  B 896 C           222
1569 15 45          R                                       A   1  0886  1                 222
1570 15 46          SS    1                                 A   2  0887  K 1               222
1571 15 47          MCW   'N',RHO                           A   7  0889  M 959 763         222
1572 15 48    YESIR SBR   COMETS+3,CRWRED                   A   7  0896  H X65 X71        222
1573 15 49          SBR   CCONPR+3,NOSIR                    A   7  0903  H X70 914        223
1574 15 50          B     CRWRED                            A   4  0910  B X71             223
1575 15 51    NOSIR B     TREAD                             A   4  0914  B 471             223
1576 15 52    *
1577 15 53    *     PROCESS LTORG
1578 15 54    *
1579 15 55    LORGS C     CALLTX,BLANK      Q. ANY CALLS    A   7  0918  C -73 999         223
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1580 15 56           BU    HAULIT                                     A   5  0925  B S64 /           223
1581 15 57           B     OUTS2                                      A   4  0930  B 758             223
1582 15 58   EOF4    CS    LMAINX                                     A   4  0934  / 086             223
1583 15 59           SW    1                                          A   4  0938  , 001             224
1584 15 60           MCW   'END$$$',MAINXX+18                        A   7  0942  M ≠05 019          224
1585 15 61           B     ENDSTX                                     A   4  0949  B U78             224
1586 15 62   ANTPER  DCW   +NTPERA                                    A   3  0955  881               224
1587 15 63   ACRWED  DCW   +CRWRED                                    A   3  0958  X71               224
1588 15 64           LTORG *                                          A              0959
                     DCW   'N'                                      A   1  0959            LIT     224
      1479                 'CHAIN'                                  A   5  0964            LIT     224
      1481                 'MLCWA'                                  A   5  0969            LIT     225
                           'ENT'                                    A   3  0972            LIT     225
      1485                 'MA   '                                  A   5  0977            LIT     225
      1487                 'EX   '                                  A   5  0982            LIT     225
                           'END'                                    A   3  0985            LIT     225
      1495                 'LTORG'                                  A   5  0990            LIT     225
                           '4'                                      A   1  0991            LIT     225
                           'SCR'                                    A   3  0994            LIT     226
                           '8'                                      A   1  0995            LIT     226
                           'B'                                      A   1  0996            LIT     226
      1560   BLANK         =03                                      A   3  0999            AREA    226
      1584                 'END$$$'                                 A   6  1005            LIT     226
1589 15 65   *
1590 15 66   *    MAIN LINE PROCESSING ANNEX
1591 15 67   *
1592 15 68           SFX   X
1593 15 69           ORG   NUORIG                                     X              1044
1594 15 70   EOF1B   RWD   1                                          X   5  1044  U (U1 R            227
1595 15 71           S     PREVS                                      X   4  1049  S H72             227
1596 15 72           B     SWITCH                                     X   4  1053  B L01             227
1597 15 73   *
1598 15 74   *    PROCESS LOZENGED FIELD  6  -  20
1599 15 75   *
1600 15 76   LOZENG  BM    MLBLZ,MAINX+2+X1   Q. INTERNAL LABEL      X   8  1057  V D68 0≠3 K       227
1601 15 77           B     LABEL                                      X   4  1065  B /19            227
1602 15 78           MCW   BLANKS,MAINX+4+X1                         X   7  1069  M W16 0≠5        227
1603 15 79           MCW   INDEX1,SAVX1=3                           X   7  1076  M 089 W11        227
1604 15 80           MCW   INDEX3,INDEX2                            X   7  1083  M 099 094        228
1605 15 81           B     SBGRD                                      X   4  1090  B G46            228
1606 15 82           A     SAVX1,INDEX1                               X   7  1094  A W11 089        228
1607 15 83           MCW   0+X3,MAINX+X1                            X   7  1101  M 0+0 0≠1        228
1608 15 84           MCW   SAVX1,INDEX1                             X   7  1108  M W11 089        228
1609 15 85           B     UPENGL                                     X   4  1115  B A48            228
1610 15 86   *
1611 15 87   *    LOCATE PARAMETERS
1612 15 88   *
1613 15 89   LABEL   SBR   LEXIT+3                                   X   4  1119  H S63            229
1614 15 90           MCW   BLANKS=5,INDEX3                          X   7  1123  M W16 099        229
1615 15 91           MCW   BLANKS,CNTP                               X   7  1130  M W16 W19        229
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1616 15 92           MN    MAINX+1+X1,CNTP                           X   7  1137  D 0≠2 W19         229
1617 15 93   CIRCL   S     +1,CNTP                                   X   7  1144  S W17 W19         229
1618 15 94           BM    TENSR,CNTP                                X   8  1151  V /70 W19 K       230
1619 15 95           A     '3',INDEX3                                X   7  1159  A W18 099         230
1620 15 96           B     CIRCL                                     X   4  1166  B /44             230
1621 15 97   TENSR   BCE   CHZON,DECTB-2+X3,0                        X   8  1170  B -74 UI0 0       230
1622 15 98           MCW   BLANKS,CNTP=1                            X   7  1178  M W16 W19         230
1623 15 99           MCW   DECTB+X3,INDEX3                          X   7  1185  M UI2 099         231
1624 16 00           MN    MAINX+2+X1,CNTP                           X   7  1192  D 0≠3 W19         231
1625 16 01   MOVINP  S     +1,CNTP                                   X   7  1199  S W17 W19         231
1626 16 02           MCW   0+X3,0+X3                                 X   7  1206  M 0+0 0+0         231
1627 16 03           SAR   WAREA=3                                   X   4  1213  Q W22             231
1628 16 04           BCE   CHZON,0+X3,,       Q. MISSING PARAMETER   X   8  1217  B -74 0+0 ,      232
1629 16 05           BM    PUTIN,CNTP        Q. PARAMETER LOCATED    X   8  1225  V S44 W19 K      232
1630 16 06           MCW   WAREA,INDEX3                              X   7  1233  M W22 099         232
1631 16 07           B     MOVINP                                    X   4  1240  B /99            232
1632 16 08   PUTIN   BCE   CHZON,0+X3,                              X   8  1244  B -74 0+0         232
1633 16 09           BWZ   DELET,MAINX+2+X1,S                       X   8  1252  V D41 0≠3 S       233
1634 16 10   LEXIT   B     0                                         X   4  1260  B 000             233
1635 16 11   *
1636 16 12   *     PROCESS LTORG
1637 16 13   *
1638 16 14   HAULIT MCW    'ORG  ',MAINX+19   REPLACE LTORG WITH ORG  X   7  1264  M W27 020         233
1639 16 15           MCW   'L',MAINX+74                              X   7  1271  M W28 075         233
1640 16 16           B     SBROT                                     X   4  1278  B 033             233
1641 16 17           B     EXITC                                     X   4  1282  B D79             233
1642 16 18           CS    LMAIN                                     X   4  1286  / 086             233
1643 16 19           MCW   LITORG,MAINX+20    GENERATE LTORG*       X   7  1290  M T58 021         234
1644 16 20           MCW   CHARCC,MAINX+74                           X   7  1297  M U61 075         234
1645 16 21           B     WHYYY                                     X   4  1304  B K97             234
1646 16 22   *
1647 16 23   *               PREPARATION FOR LTORG,EX,EX OR IOCS
1648 16 24   *
1649 16 25   SUREX   SBR   SIMPLE+3                                  X   4  1308  H T41             234
1650 16 26           SW    1                                         X   4  1312  , 001            234
1651 16 27           CS    LIPUTX                                    X   4  1316  / 186            234
1652 16 28           LCA   LMAINX,LIPUTX                            X   7  1320  L 086 186         234
1653 16 29           B     EXITCX                                    X   4  1327  B D79             235
1654 16 30           LCA   LIPUTX,LMAINX                            X   7  1331  L 186 086         235
1655 16 31   SIMPLE  B     0                                         X   4  1338  B 000             235
1656 16 32   TDFEXT  DCW   +RWDEXT                                   X   3  1344  D83               235
1657 16 33           DCW   'M{U1001R'                                X   8  1352                   235
1658 16 34   LITORG  DCW   'LTORG*'                                  X   6  1358                   235
1659 16 35   *
1660 16 36   *    IOCS TABLE
1661 16 37   *
1662 16 38           DCW   '='                                       X   1  1359                   235
1663 16 39           DCW   'RLS'                                     X   3  1362                   236
1664 16 40           DCW   'GET'                                     X   3  1365                   236
1665 16 41           DCW   'PUT'                                     X   3  1368                   236
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 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1666 16 42          DCW   'DTF'                             X   3  1371                    236
1667 16 43   TABLEI  DCW   'OPE'                             X   3  1374                    236
1668 16 44   *
1669 16 45   *  GENERATE UNKNOWN MACRO CARD
1670 16 46   *
1671 16 47   NOROT  SBR   NROTC+3                           X   4  1375  H U14              236
1672 16 48          CS    LMAINX                            X   4  1379  / 086             236
1673 16 49          MCW   'B',MAINX+85                      X   7  1383  M W29 086          237
1674 16 50          MCW   'UNKNOWN',MAINX+19                X   7  1390  M W36 020          237
1675 16 51          MCW   CHARCC,MAINX+74                   X   7  1397  M U61 075          237
1676 16 52          MCW   '*',MAINX+5                       X   7  1404  M W37 006          237
1677 16 53   NROTC  B     0                                 X   4  1411  B 000              237
1678 16 54   POTS   MCW   'B',SWITCH                        X   7  1415  M W29 L01          237
1679 16 55          MCW   'N',NEXTCD                        X   7  1422  M W38 N66          238
1680 16 56          B     COOKER                            X   4  1429  B E90              238
1681 16 57   *
1682 16 58   *   MODIFY ADDRESS MACRO
1683 16 59   *
1684 16 60   MASET  MCW   CHARCR,MAINX+74                   X   7  1433  M U62 075          238
1685 16 61          B     SBROTX                            X   4  1440  B 033              238
1686 16 62          MCW   'D',MAINX+17                      X   7  1444  M W39 018          238
1687 16 63          B     SGC                               X   4  1451  B P18              238
1688 16 64   INCLDX DCW   'INCLD'                           X   5  1459                    238
1689 16 65   CHARCS DCW   'Z'                               X   1  1460                    239
1690 16 66   CHARCC DCW   'Y'                               X   1  1461                    239
1691 16 67   CHARCR DCW   'W'                               X   1  1462                    239
1692 16 68   KINGS  B     NOROT                             X   4  1463  B T75              239
1693 16 69          MCW   HLDSB,MAINX+10                    X   7  1467  M 192 011          239
1694 16 70          B     WHYYY                             X   4  1474  B K97              239
1695 16 71   ENDSTX B     CTAPE                             X   4  1478  B W50              239
1696 16 72          NOP   TDF5                              X   4  1482  N V89              240
1697 16 73          B     OVLY4I                            X   4  1486  B 434              240
1698 16 74   DECTB  DCW   +PARTB                            X   3  1492  466                240
1699 16 75          DA    9X3                               X      1493   1519              241
1700 16 76   ENDDC  EQU   *                                 X      1519
1701 16 77   MOVEC  LCA   ' ',0+X3                          X   7  1520  L W40 0+0          241
1702 16 78          SBR   INDEX3                            X   4  1527  H 099              241
1703 16 79          A     '3',INDEX2+1                      X   7  1531  A W18 095          242
1704 16 80          BCE   MIDLE,INDEX2+1,3                  X   8  1538  B H22 095 3        242
1705 16 81   LOWER  A     '1',INDEX1                        X   7  1546  A W41 089          242
1706 16 82          SW    MAINX+20+X1                       X   4  1553  , 0S1              242
1707 16 83          BCE   MOVEC,MAINX+20+X1,,               X   8  1557  B V20 0S1 ,        242
1708 16 84   WEEDD  MCW   INDEX2+1,IOCSAV                   X   7  1565  M 095 H10          243
1709 16 85          B     WEEDBX                            X   4  1572  B N39              243
1710 16 86          MCW   IOCSAV,INDEX2+1                   X   7  1576  M H10 095          243
1711 16 87          B     COMSN                             X   4  1583  B P79              243
1712 16 88   TDF5   DCW   =3                                X   3  1589                    243
1713 16 89          RTW   5,OVLY4I                          X   8  1590  L (U5 434 R        243
1714 16 90   NEWEST DC    0                                 X   1  1598                    243
1715 16 91   SYMNM  DCW   '000'                             X   3  1601                    243
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
1716	16	92	WHOOPS	DCW	'CALL'	X	4	1605			244
1717	16	93	ADDCAL	DCW	+CALLTX	X	3	1608	-73		244
1718	16	94		LTORG	*	X			1609		
		1603	SAVX1	DCW	=03	X	3	1611		AREA	244
		1614	BLANKS		=05	X	5	1616		AREA	244
					+1	X	1	1617		LIT	244
					'3'	X	1	1618		LIT	244
		1622	CNTP		=01	X	1	1619		AREA	244
		1627	WAREA		=03	X	3	1622		AREA	245
		1638			'ORG '	X	5	1627		LIT	245
					'L'	X	1	1628		LIT	245
					'B'	X	1	1629		LIT	245
		1674			'UNKNOWN'	X	7	1636		LIT	245
					'*'	X	1	1637		LIT	245
					'N'	X	1	1638		LIT	245
					'D'	X	1	1639		LIT	246
					' '	X	1	1640		LIT	246
					'1'	X	1	1641		LIT	246
1719	16	95		ORG	1649	X			1649		
1720	16	96	GM1	DCW	' '	X	1	1649			247
1721	16	97		EX		X			B 000		248

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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1722 16 98           JOB   1401 AUTOCODER - PASS 2 - MACRO-GENERATOR- VERSION 3
1723 16 99           SFX   X
1724 17 00    *
1725 17 01    *   GENERALIZED TAPE INPUT/OUTPUT ROUTINE
1726 17 02    *
1727 17 03           ORG   1650                                      X            1650                 251
1728 17 04    CTAPEX SBR   INDEX2                                   X   4  1650  H 094                251
1729 17 05           SBR   CCONPR+3                                 X   4  1654  H X70                 251
1730 17 06           MCW   3+X2,INDEX2                              X   7  1658  M 0-3 094             251
1731 17 07           MCW   8+X2,CTAPEC+7                           X   7  1665  M 0-8 X29             251
1732 17 08           MCW   0+X2,CEORC+3                            X   7  1672  M 0-0 X41             251
1733 17 09           SW    CCOMPR+4                                X   4  1679  , X47                 251
1734 17 10           MCW   7+X2,CCOMPR+6                           X   7  1683  M 0-7 X49             252
1735 17 11           A     '12',CCOMPR+6                           X   7  1690  A Y93 X49             252
1736 17 12           CW    CCOMPR+4                                X   4  1697  ) X47                 252
1737 17 13           MN    CTAPEC+3,CHALT+6                        X   7  1701  D X25 Y55             252
1738 17 14           MN    CTAPEC+7,CHALT+6                        X   7  1708  D X29 Y55             252
1739 17 15           MCW   '9',CERRCT=1                            X   7  1715  M Y94 Y95             252
1740 17 16    CTAPEC RT    0,0                                     X   8  1722  M (U0 000 R           253
1741 17 17           BCE   COMETS,CTAPEC+7,W                       X   8  1730  B X62 X29 W           253
1742 17 18    CEORC  BEF   0                                       X   5  1738  B 000 K               253
1743 17 19    CCOMPR BCE   CTAPEC,0,                               X   8  1743  B X22 000             253
1744 17 20           B                                             X   1  1751  B                    253
1745 17 21           B                                             X   1  1752  B                    253
1746 17 22           B                                             X   1  1753  B                    253
1747 17 23           B                                             X   1  1754  B                    254
1748 17 24           B                                             X   1  1755  B                    254
1749 17 25           B                                             X   1  1756  B                    254
1750 17 26           B                                             X   1  1757  B                    254
1751 17 27           B                                             X   1  1758  B                    254
1752 17 28           B                                             X   1  1759  B                    254
1753 17 29           B                                             X   1  1760  B                    254
1754 17 30           B                                             X   1  1761  B                    255
1755 17 31    CCMETS BER   CRWRED                                  X   5  1762  B X71 L               255
1756 17 32    CCONPR B     0                                       X   4  1767  B 000                 255
1757 17 33    CRWRED S     '1',CERRCT                              X   7  1771  S Y96 Y95             255
1758 17 34           MN    CTAPEC+3,*+4                            X   7  1778  D X25 X88             255
1759 17 35           BSP   0                                       X   5  1785  U (U0 B               255
1760 17 36           BCE   CTROW,CTAPEC+7,W                       X   8  1790  B Y10 X29 W           255
1761 17 37           BM    CHALT,CERRCT                            X   8  1798  V Y49 Y95 K           256
1762 17 38           B     CTAPEC                                  X   4  1806  B X22                256
1763 17 39    CTROW  A     '1',CERASC=2                            X   7  1810  A Y96 Y98             256
1764 17 40           SKP   6                                       X   5  1817  U (U6 E               256
1765 17 41           BCE   CCHALT,CERASC-1,5                       X   8  1822  B Y34 Y97 5           256
1766 17 42           B     CTAPEC-7                                X   4  1830  B X15                256
1767 17 43    CCHALT S     CERASC                                  X   4  1834  S Y98                257
1768 17 44           H     0,202                                   X   7  1838  . 000 202            257
1769 17 45           B     CTAPEC-7                                X   4  1845  B X15                257
1770 17 46    CHALT  H     0,200                                   X   7  1849  . 000 200            257
1771 17 47           BSS   CTAPEC-7,E                             X   5  1856  B X15 E               257
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 SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1772 17 48          MCW   CTAPEC+7,*+8                       X   7  1861  M X29 Y75          257
1773 17 49          RT    0,0                               X   8  1868  M (U0 000 R        258
1774 17 50          H     0,201                             X   7  1876  . 000 201          258
1775 17 51          B     CCONPR                            X   4  1883  B X67              258
1776 17 52  HEADR   DCW   'HEADR'                           X   5  1891                     258
1777 17 53          LTORG *                                 X          1892
                    DCW   '12'                              X   2  1893          LIT       258
                          '9'                               X   1  1894          LIT       258
      1739  CERRCT        =01                               X   1  1895          AREA      258
                          '1'                               X   1  1896          LIT       259
      1763  CERASC        =02                               X   2  1898          AREA      259
1778 17 54  *
1779 17 55  *   INITIALIZATION
1780 17 56  *
1781 17 57          ORG   1900                              X         1900
1782 17 58  STARTX MCW   340,IOCSAV                         X   7  1900  M 340 H10          260
1783 17 59          MCW                                     X   1  1907  M                  260
1784 17 595         MCW   NORDRL,HOLE=1                     X   7  1908  M W12 -55          260
1785 17 60          B     CTAPE                             X   4  1915  B W50              260
1786 17 61          NOP   TDFSS                             X   4  1919  N Z68              260
1787 17 62          CW    GM1                               X   4  1923  ) W49              260
1788 17 63          SW    3998                              X   4  1927  , I98              260
1789 17 64          MCW   LIPUT+1,3998                       X   7  1931  M 187 I98          261
1790 17 65          CW    3995,3997                         X   7  1938  ) I95 I97          261
1791 17 66          BSS   ALTERX,B                          X   5  1945  B Z77 B            261
1792 17 67          RWD   1                                 X   5  1950  U (U1 R            261
1793 17 675         MCW   HOLE,CARDSX                       X   7  1955  M -55 189          261
1794 17 68          B     STARTA                            X   4  1962  B 101              261
1795 17 69  TDFSS   DCW   +CCHALT                          X   3  1968  Y34                261
1796 17 70          DCW   'L(U1001R'                        X   8  1976                     262
1797 17 71  ALTERX B     CTAPEX                            X   4  1977  B W50              262
1798 17 72          NOP   TDFSS                             X   4  1981  N Z68              262
1799 17 73          CW    GM2XXX                            X   4  1985  ) ≠43              262
1800 17 74          RWD   1                                 X   5  1989  U (U1 R            262
1801 17 75          MCW   IOCSAV,SYMNM                      X   7  1994  M H10 W01          262
1802 17 76          MCW   +IOCALT,SWITCH+3                  X   7  2001  M -58 L04          262
1803 17 77          SBR   HAPPY+3,STRING                    X   7  2008  H N73 156          263
1804 17 78          MCW   'N',OUTSB                         X   7  2015  M -59 041          263
1805 17 79          MCW   'N',BUT1X                         X   7  2022  M -59 037          263
1806 17 80          MCW   'N',BUT2X                         X   7  2029  M -59 089          263
1807 17 81          BCE   VOICEB,IOCSAV-3,*                X   8  2036  B 101 H07 *        263
1808 17 82          MCW   'N',SWMA2B                        X   7  2044  M -59 759          264
1809 17 83          B     VOICEB                            X   4  2051  B 101              264
1810 17 84          LTORG *                                 X         2055
      1784  HOLE    DCW   =01                               X   1  2055          AREA      264
      1802                +IOCALT                           X   3  2058  106     ADCON     264
                          'N'                               X   1  2059          LIT       264
1811 17 85          ORG   1900                              X         1900
1812 17 86          DA    1X174                             X      1900   2073              264
1813 17 87  CALLT   EQU   *                                 X      2073
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1814 17 88   *
1815 17 89   *  PROCESS MISSING PARAMETERS WITH REGARD TO ZONE
1816 17 90   *
1817 17 91   CHZON   BWZ   SLASH,MAINX+2+X1,S                        X   8  2074  V J08 0‡3 S       265
1818 17 92           BWZ   DELET,MAINX+2+X1,B                       X   8  2082  V D41 0‡3 B       265
1819 17 93           MCW   'B',MAINX+85                             X   7  2090  M H44 086         265
1820 17 94   ZONBR   CW    MAINX+X1,MAINX+3+X1                      X   7  2097  ) 0‡1 0‡4        265
1821 17 95   ZONCH   B     DEFND                                    X   4  2104  B +41            265
1822 17 96   SLASH   MCW   BLANKS-2,MAINX+2+X1                     X   7  2108  M W14 0‡3         266
1823 17 97           B     ZONBR                                    X   4  2115  B -97            266
1824 17 98   SUBSET  MCW   'N',SWITCH                               X   7  2119  M H45 L01         266
1825 17 99           MCW   'B',NEXTCD                              X   7  2126  M H44 N66         266
1826 18 00           MCW   CHARCS,MAINX+74                          X   7  2133  M U60 075         266
1827 18 01           B     CALIT                                    X   4  2140  B J58            266
1828 18 02   MASKS   MCW   'B',NOCAL                               X   7  2144  M H44 K20         267
1829 18 03   *
1830 18 04   *  PROCESSING CALL STATEMENT
1831 18 05   *
1832 18 06   CALLN   MCW   CHARCR,MAINX+74                          X   7  2151  M U62 075         267
1833 18 07   CALIT   MCW   ADDCAL,INDEX2      BEGIN SCAN OF CALL TABLE X   7  2158  M W08 094         267
1834 18 08           SW    MAINXX+20                                X   4  2165  , 021            267
1835 18 09   YSCALX  BCE   XXXX,INDEX2-2,Y    Q. CALL TABLE EXCEEDED X   8  2169  B K90 092 Y       267
1836 18 10           C     0+X2,'   '                               X   7  2177  C 0-0 H48         268
1837 18 11           BE    SPADEX                                   X   5  2184  B K09 S          268
1838 18 12           C     0+X2,MAINX+22                            X   7  2189  C 0-0 023         268
1839 18 13           SAR   INDEX2                                   X   4  2196  Q 094            268
1840 18 14           BE    QUEEN                                    X   5  2200  B K16 S          268
1841 18 15           B     YSCALX                                   X   4  2205  B J69            268
1842 18 16   SPADEX  MCW   MAINX+22,0+X2                           X   7  2209  M 023 0-0         268
1843 18 17   QUEEN   CW    MAINXX+20                                X   4  2216  ) 021            269
1844 18 18   NOCALX  NOP   SKELCX                                   X   4  2220  N R17            269
1845 18 19           B     SBROT                                    X   4  2224  B 033            269
1846 18 20           BCE   SWITCH,MAINX+19,D  Q. INCLD STATEMENT   X   8  2228  B L01 020 D       269
1847 18 21   *
1848 18 22   *    LOAD PARAMETERS INTO TABLE
1849 18 23   *
1850 18 24           MCW   MAINX+10,PARTB                           X   7  2236  M 011 466         269
1851 18 25           SBR   INDEX3                                   X   4  2243  H 099            269
1852 18 26           S     INDEX1+1                                 X   4  2247  S 090            269
1853 18 27   DIMNDX  B     SCANXX                                   X   4  2251  B M19            270
1854 18 28           SW    1                                        X   4  2255  , 001            270
1855 18 29           LCA   MAINX+18+X1,0+X3                         X   7  2259  L 0/9 0+0         270
1856 18 30           SBR   INDEX3                                   X   4  2266  H 099            270
1857 18 31           BCE   HEARTX,MAINX+19+X1,                     X   8  2270  B L09 0S0         270
1858 18 32           BCE   WEEDBX,MAINX+19+X1,,                     X   8  2278  B N39 0S0 ,       270
1859 18 33           B     DIMNDX                                   X   4  2286  B K51            270
1860 18 34   XXXX    MCW   '7',MAINX+85                            X   7  2290  M H49 086         271
1861 18 35   WHYYY   B     SBROT                                    X   4  2297  B 033            271
1862 18 36   SWITCH  B     READTA                                   X   4  2301  B 467            271
1863 18 37           B     POTS                                     X   4  2305  B U15            271
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1864 18 38   *
1865 18 39   *   GENERATE BRANCH AND DCW,S
1866 18 40   *
1867 18 41   HEARTX LCA   ' ',0+X3                                X   7  2309  L H50 0+0          271
1868 18 42          CS    LMAINX                                  X   4  2316  / 086            271
1869 18 43          MCW   PARTB,MAINX+10                          X   7  2320  M 466 011        271
1870 18 44          MCW   PARTB-6,MAINX+24                       X   7  2327  M 460 025        272
1871 18 45          SAR   INDEX3                                  X   4  2334  Q 099            272
1872 18 46          MCW   'B',MAINX+15                           X   7  2338  M H44 016        272
1873 18 47   SLAM   MCW   CHARCC,MAINX+74                        X   7  2345  M U61 075        272
1874 18 48          MCW   INDEX3,SAVXL2=3                        X   7  2352  M 099 H53        272
1875 18 49          MCW   SAVXL2,INDEX3                         X   7  2359  M H53 099        272
1876 18 50          CW    MAINX+23                                X   4  2366  ) 024            273
1877 18 51          B     SBROT                                   X   4  2370  B 033            273
1878 18 52          CS    LMAINX                                  X   4  2374  / 086            273
1879 18 53          BCE   SWITCH,0+X3,                           X   8  2378  B L01 0+0         273
1880 18 54          MCW   'DCW',MAINX+17                         X   7  2386  M H56 018        273
1881 18 55          MCW   INDEX3,INDEX2                         X   7  2393  M 099 094        273
1882 18 56          B     SBGRDX                                  X   4  2400  B G46            273
1883 18 57          MCW   0+X3,MAINX+20+X1                       X   7  2404  M 0+0 0S1        274
1884 18 58          SAR   INDEX3                                  X   4  2411  Q 099            274
1885 18 59          B     SLAM                                    X   4  2415  B L45            274
1886 18 60   *
1887 18 61   *     SCAN FOR COMMA, TWO BLANKS, OR AN '
1888 18 62   *
1889 18 63   SCANXX SBR   CLUBS+3                                 X   4  2419  H N12            274
1890 18 64   SCANL  SW    MAINX+20                                X   4  2423  , 021            274
1891 18 65          BCE   SCNAT,MAINX+20+X1,'                    X   8  2427  B N13 0S1 '       274
1892 18 66          BCE   CETWMS,MAINX+20+X1,,                   X   8  2435  B M98 0S1 ,       274
1893 18 67          C     MAINX+20+X1,'  '                        X   7  2443  C 0S1 H58        275
1894 18 68          BE    CLUBS                                   X   5  2450  B N09 S          275
1895 18 69   CXIT1  A     '1',INDEX1                              X   7  2455  A H59 089        275
1896 18 70          C     INDEX1,'52'                             X   7  2462  C 089 H61        275
1897 18 71          BU    SCANL                                   X   5  2469  B M23 /          275
1898 18 72          C     MAINX+71,'  '                           X   7  2474  C 072 H58        275
1899 18 73          BE    CLUBS                                   X   5  2481  B N09 S          276
1900 18 74          BCE   CLUBS,MAINX+71,                        X   8  2486  B N09 072        276
1901 18 75          B     CXIT                                    X   4  2494  B N02            276
1902 18 76   CETWMS SW    MAINX+21+X1                             X   4  2498  , 0S2            276
1903 18 77   CXIT   A     '1',INDEX1                              X   7  2502  A H59 089        276
1904 18 78   CLUBS  B     0                                       X   4  2509  B 000            276
1905 18 79   SCNAT  ZA    '510',INDEX1+1                          X   7  2513  + H64 090        276
1906 18 80   ATLCK  BCE   CXIT1,MAINX+20+X1,'                     X   8  2520  B M55 0S1 '       277
1907 18 81          S     +10,INDEX1+1                            X   7  2528  S H66 090        277
1908 18 82          B     ATLCK                                   X   4  2535  B N20            277
1909 18 83   *
1910 18 84   *  OBTAIN MORE PARAMETERS FROM ADDITIONAL RECORDS
1911 18 85   *
1912 18 86   WEEDBX SBR   WEDXT+3                                 X   4  2539  H 021            277
1913 18 87          B     NEWEED                                  X   4  2543  B N54            277
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1914 18 88   WEDDBX  A     '1',INDEX1                                 X   7  2547  A H59 089         277
1915 18 89   NEWEED  C     INDEX1,'52'                                X   7  2554  C 089 H61         278
1916 18 90           BU    LOOPW                                      X   5  2561  B 006 /           278
1917 18 91   NEXTCD  NOP   CALLCD                                     X   4  2566  N G80            278
1918 18 92   HAPPY   B     TWEDBA              READ NEXT RECORD       X   4  2570  B 653            278
1919 18 93           NOP                                              X   1  2574  N                278
1920 18 94           MCW   CHARCR,MAINX+74                           X   7  2575  M U62 075        278
1921 18 95   THRU    B     SBROTX                                     X   4  2582  B 033            278
1922 18 96           BCE   HAPPY,MAINX+5,*                           X   8  2586  B N70 006 *       279
1923 18 97           S     INDEX1+1                                   X   4  2594  S 090            279
1924 18 98           BCE   MOVEC,MAINX+20,,   Q. FIRST PARAMETER MISSSING X   8  2598  B V20 021 ,      279
1925 18 99   LOOPW   BCE   WEDDBX,MAINX+20+X1,                        X   8  2606  B N47 0S1        279
1926 19 00           SW    MAINX+20+X1                                X   4  2614  , 0S1            279
1927 19 01   WEDXT   B     0                                          X   4  2618  B 000            279
1928 19 02   TDF6    DCW   +CCHALT                                   X   3  2624  Y34              279
1929 19 03           DCW   'M(U6I12W'                                X   8  2632                   280
1930 19 04   *
1931 19 05   *    OUTPUT ROUTINE
1932 19 06   *
1933 19 07   SBROTX  SBR   BRNCH+3                                   X   4  2633  H 099            280
1934 19 08   BUT1X   B     HOMEX                                      X   4  2637  B 048            280
1935 19 09   OUTSB   MCW   ANTPER,COMETS+3                           X   7  2641  M 955 X65        280
1936 19 10   HOMEX   MCW   LMAIN,LOPUT                               X   7  2648  M 086 I97        280
1937 19 11           BCE   BUT2X,OUTPT+73,*                           X   8  2655  B 089 I85 *      280
1938 19 12           MCW   BLANKS-3,OUTPT+73                         X   7  2663  M W13 I85        281
1939 19 13           SW    LOPUT+1                                    X   4  2670  , I98            281
1940 19 14           MCW   LIPUT+1,LCPUT+1                           X   7  2674  M 187 I98        281
1941 19 15           B     CTAPEX                                     X   4  2681  B W50            281
1942 19 16           NOP   TDF6                                       X   4  2685  N 024            281
1943 19 17   BUT2X   MCW   ACRWED,COMETS+3                           X   7  2689  M 958 X65        281
1944 19 18   BRNCH   B     0                                          X   4  2696  B 000            281
1945 19 19   *
1946 19 20   *  PROCESS PARAMETERS FOR SUBSTITUTIONS
1947 19 21   *
1948 19 22   MSUBTX  MCW   'R',MAINX+74                              X   7  2700  M H67 075        282
1949 19 23           B     SBROTX                                     X   4  2707  B 033            282
1950 19 24           A     '1',SYMNM                                  X   7  2711  A H59 W01        282
1951 19 25   SGC     MCW   MAINX+17,HLDSB                           X   7  2718  M 018 192        282
1952 19 26           S     ENDDC                                      X   4  2725  S V19            282
1953 19 27           CHAIN 8                                                                 MACRO
1954                 S                                                X   1  2729  S             GEN  282
1955                 S                                                X   1  2730  S             GEN  282
1956                 S                                                X   1  2731  S             GEN  283
1957                 S                                                X   1  2732  S             GEN  283
1958                 S                                                X   1  2733  S             GEN  283
1959                 S                                                X   1  2734  S             GEN  283
1960                 S                                                X   1  2735  S             GEN  283
1961                 S                                                X   1  2736  S             GEN  283
1962 19 28           S     INDEX2+2                                   X   4  2737  S 096            283
1963 19 29           A     '3',INDEX2+1                               X   7  2741  A H68 095        284
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 SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1964 19 30           MCW   MAINX+10,PARTB                     X  7  2748  M 011 466          284
1965 19 31           SBR   INDEX3                             X  4  2755  H 099              284
1966 19 32           S     INDEX1+1                           X  4  2759  S 090              284
1967 19 33           BCE   BTREND,MAINX+20,                   X  8  2763  B Q25 021          284
1968 19 34           BCE   MOVEC,MAINX+20,,                   X  8  2771  B V20 021 ,        284
1969 19 35  COMSN    A     '3',INDEX2+1                       X  7  2779  A H68 095          285
1970 19 36           BCE   ABOVE,INDEX2+1,3                   X  8  2786  B H33 095 3        285
1971 19 37  BELOW    B     SCANXX                             X  4  2794  B M19              285
1972 19 38           LCA   MAINX+18+X1,0+X3                   X  7  2798  L 0/9 0+0          285
1973 19 39           SBR   INDEX3                             X  4  2805  H 099              285
1974 19 40           BCE   MOVEC,MAINX+20+X1,,                X  8  2809  B V20 0S1 ,        285
1975 19 41           BCE   WEEDD,MAINX+19+X1,,                X  8  2817  B V65 0S0 ,        286
1976 19 42  BTREND   LCA   ',',0+X3                           X  7  2825  L H69 0+0          286
1977 19 43           CS    LMAINX                             X  4  2832  / 086              286
1978 19 44           C     PREVS=3,HLDSB                      X  7  2836  C H72 192          286
1979 19 45           MCW   '999',PREVS                        X  7  2843  M H75 H72          286
1980 19 46           BE    HARMN                              X  5  2850  B R65 S            286
1981 19 47           BH    RDTP1                              X  5  2855  B Q65 U            287
1982 19 48  EOF1     RWD   1                                  X  5  2860  U (U1 R            287
1983 19 49  *
1984 19 50  *                 SUBSTITUTIONS
1985 19 51  *
1986 19 52  RDTP1    SW    100                                X  4  2865  , 100              287
1987 19 53           B     CTAPE                              X  4  2869  B W50              287
1988 19 54           NOP   TDFLIB                             X  4  2873  N B18              287
1989 19 55           C     MAINX+19,HEADR                     X  7  2877  C 020 Y91          287
1990 19 56           BU    RDTP1                              X  5  2884  B Q65 /            287
1991 19 57           C     MAINX+7,'999'                      X  7  2889  C 008 H75          288
1992 19 58           BE    KINGS                              X  5  2896  B U63 S            288
1993 19 59           C     MAINX+7,HLDSB                      X  7  2901  C 008 192          288
1994 19 60           BU    RDTP1                              X  5  2908  B Q65 /            288
1995 19 61           B     HARMN                              X  4  2913  B R65              288
1996 19 62  SKELC    MCW   'N',NOCAL                          X  7  2917  M H45 K20          288
1997 19 63           MCW   CHARCS,MAINX+74                    X  7  2924  M U60 075          289
1998 19 64           B     SBROT                              X  4  2931  B 033              289
1999 19 65           BCE   HARMN,MAINX+19,D                   X  8  2935  B R65 020 D        289
2000 19 66           MCW   'B    ',MAINX+19                   X  7  2943  M H80 020          289
2001 19 67  BOUTS    CW    ZEROX                              X  4  2950  ) 188              289
2002 19 68           MCW   CHARCC,MAINX+74                    X  7  2954  M U61 075          289
2003 19 69           B     SBROTX                             X  4  2961  B 033              290
2004 19 70  HARMN    CS    LMAINX                             X  4  2965  / 086              290
2005 19 71           SW    1,100                              X  7  2969  , 001 100          290
2006 19 72           MCW   LIPUT+1,100                       X  7  2976  M 187 100          290
2007 19 73           B     CTAPEX                             X  4  2983  B W50              290
2008 19 74           NOP   TDFLB2                             X  4  2987  N B29              290
2009 19 75           C     MAINX+19,HEADR                     X  7  2991  C 020 Y91          290
2010 19 76           MCW   MAINX+7,PREVS                      X  7  2998  M 008 H72          291
2011 19 77           BE    SWITCH                             X  5  3005  B L01 S            291
2012 19 78           C     MAINX+7,')00'                      X  7  3010  C 008 H83          291
2013 19 79           BU    LZFND                              X  5  3017  B +26 /            291
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2014 19 80          SW    ZEROX                                    X  4  3022  , 188             291
2015 19 81   *
2016 19 82   *  RIGHT TO LEFT SCAN FOR LOZENGES
2017 19 83   *
2018 19 84   LZFND  ZA    '690',INDEX1+1                           X  7  3026  + H86 090         291
2019 19 85   LOZSC  BCE   LZCNT,MAINX+X1,)                        X  8  3033  B B38 0#1 )       292
2020 19 86   DEFND  S     +10,INDEX1+1                             X  7  3041  S H66 090         292
2021 19 87          C     INDEX1,'15'                              X  7  3048  C 089 H88         292
2022 19 88          BU    LOZSC                                    X  5  3055  B +33 /           292
2023 19 89          S     INDEX1+1                                 X  4  3060  S 090             292
2024 19 90   CLEANC B     SCANXX                                   X  4  3064  B M19             292
2025 19 91          CW    MAINX+20,MAINX+20+X1                     X  7  3068  ) 021 0S1         293
2026 19 92          C     INDEX1,'51'                              X  7  3075  C 089 H90         293
2027 19 93          BL    ENDCLN                                   X  5  3082  B A26 T           293
2028 19 94          C     MAINXX+20+X1,'  '                        X  7  3087  C 0S1 H58         293
2029 19 95          BU    CLEANC                                   X  5  3094  B +64 /           293
2030 19 96          BCE   ENDCLN,MAINX+5,*                         X  8  3099  B A26 006 *       293
2031 19 97          SW    MAINX+20+X1                              X  4  3107  , 0S1             294
2032 19 98          MCW   BLANKS-4,MAINXX+71                       X  7  3111  M W12 072         294
2033 19 99          MCW   MAINXX+71                                X  4  3118  M 072             294
2034 20 00          CW    MAINXX+20+X1                             X  4  3122  ) 0S1             294
2035 20 01   *
2036 20 02   *   RIGHT TO LEFT SCAN FOR LOZENGES  6  -  20
2037 20 03   *
2038 20 04   ENDCLN MCW   '015',INDEX1                             X  7  3126  M H93 089         294
2039 20 05          SBR   ZONCH+3,UPENGL                           X  7  3133  H J07 A48         294
2040 20 06   ENGLOZ BCE   LOZENG,MAINX+X1,)                       X  8  3140  B #57 0#1 )       295
2041 20 07   UPENGL S     +10,INDEX1+1                             X  7  3148  S H66 090         295
2042 20 08          C     INDEX1,'04'                              X  7  3155  C 089 H95         295
2043 20 09          BU    ENGLOZ                                   X  5  3162  B A40 /           295
2044 20 10   OUTSD  SBR   ZONCH+3,DEFND                           X  7  3167  H J07 +41         295
2045 20 11   SHIFTL NOP   PARTB,MAINX+10                          X  7  3174  N 466 011         296
2046 20 12          MCW   'N',SHIFTL                              X  7  3181  M H45 A74         296
2047 20 13          C     MAINX+18,WHOOPS                          X  7  3188  C 019 W05         296
2048 20 14          BE    MASKS                                    X  5  3195  B J44 S           296
2049 20 15          C     MAINX+19,INCLD                           X  7  3200  C 020 U59         296
2050 20 16          BE    MASKS                                    X  5  3207  B J44 S           296
2051 20 17          B     BOUTS                                    X  4  3212  B R50             297
2052 20 18   TDFLIB DCW   +KINGS                                   X  3  3218  U63               297
2053 20 19          DCW   'M(U1001R'                               X  8  3226                   297
2054 20 20   TDFLB2 DCW   +EOF1B                                   X  3  3229  #44              297
2055 20 21          DCW   'M(U1001R'                               X  8  3237                   297
2056 20 22   *
2057 20 23   *   PROCESS LOZENGED FIELD  21  -  72
2058 20 24   *
2059 20 25   LZCNT  BCE   DEFND,MAINX+1+X1,                       X  8  3238  B +41 0#2         297
2060 20 26          SW    MAINX+X1,MAINX+3+X1                      X  7  3246  , 0#1 0#4         298
2061 20 27          BM    STSYM,MAINX+2+X1                         X  8  3253  V C56 0#3 K       298
2062 20 28          B     LABEL                                    X  4  3261  B /19             298
2063 20 29          MCW   INDEX3,SAVX3=3                           X  7  3265  M 099 H98         298
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
2064 20 30           S     INDEX3,WAREA                               X  7  3272  S 099 W22          298
2065 20 31           MZ    BLANKS,WAREA                               X  7  3279  Y W16 W22          299
2066 20 32           MCW   'I99',INDEX3                              X  7  3286  M I01 099          299
2067 20 33           S     WAREA,INDEX3                               X  7  3293  S W22 099          299
2068 20 34           MCW   'I',INDEX3-2                             X  7  3300  M I02 097          299
2069 20 35           C     INDEX3,'I9F'                               X  7  3307  C 099 I05          299
2070 20 36           BL    SPTYP                                      X  5  3314  B C78 T            300
2071 20 37           MCW   MAINX+76+X3,MAINX+72                       X  7  3319  M 0G7 073          300
2072 20 38           SBR   MOVE3+6                                    X  4  3326  H C47              300
2073 20 39  LMN      CW    MAINX+3+X1                                 X  4  3330  ) 0‡4              300
2074 20 40           MCW   SAVX3,INDEX3                               X  7  3334  M H98 099          300
2075 20 41  MOVE3    MCW   0+X3,0                                     X  7  3341  M 0+0 000          300
2076 20 42           CW    MAINX+X1                                   X  4  3348  ) 0‡1              300
2077 20 43           B     DEFND                                      X  4  3352  B +41              301
2078 20 44  STSYM    MCW   MAINX+68,MAINX+71                          X  7  3356  M 069 072          301
2079 20 45           MCW   SYMNM                                      X  4  3363  M W01              301
2080 20 46           CW    MAINX+X1,MAINX+3+X1                        X  7  3367  ) 0‡1 0‡4          301
2081 20 47           B     DEFND                                      X  4  3374  B +41              301
2082 20 48  *
2083 20 49  *  SPECIAL PROCESSING OF ONE AND TWO CHARACTER OPERANDS
2084 20 50  *
2085 20 51  SPTYP   LCA   MAINX+72,OUTPT+72                          X  7  3378  L 073 I84          301
2086 20 52           CW    MAINX+X1,MAINX+3+X1                        X  7  3385  ) 0‡1 0‡4          302
2087 20 53           MCW   BLANKS-2,MAINX+71                          X  7  3392  M W14 072          302
2088 20 54           BCE   HOUSE,INDEX3,H                             X  8  3399  B D22 099 H        302
2089 20 55           MCW   OUTPT+72,MAINX+71                          X  7  3407  M I84 072          302
2090 20 56           SBR   MOVE3+6                                    X  4  3414  H C47              302
2091 20 57           B     SPOUT                                      X  4  3418  B D33              302
2092 20 58  HOUSE    MCW   OUTPT+72,MAINX+70                          X  7  3422  M I84 071          303
2093 20 59           SBR   MOVE3+6                                    X  4  3429  H C47              303
2094 20 60  SPOUT    CW    OUTPT+3+X1                                 X  4  3433  ) I/5              303
2095 20 61           B     LMN                                        X  4  3437  B C30              303
2096 20 62  DELET    BW    LBLMV,ZEROX                                X  8  3441  V D53 188 1        303
2097 20 63           B     HARMN                                      X  4  3449  B R65              303
2098 20 64  LBLMV    MCW   'M',SHIFTL                                 X  7  3453  M I06 A74          303
2099 20 65           CW    ZEROX                                      X  4  3460  ) 188              304
2100 20 66           B     HARMN                                      X  4  3464  B R65              304
2101 20 67  MLBLZ    MCW   SYMNM,MAINX+10                             X  7  3468  M W01 011          304
2102 20 68           B     OUTSD                                      X  4  3475  B A67              304
2103 20 69  *
2104 20 70  *  PULL IN CALLED SUBROUTINES AT LTORG, END OR EXECUTE CARDS
2105 20 71  *
2106 20 72  EXITC   SBR   CEXIT1+3                                   X  4  3479  H G45              304
2107 20 73  RWDEXT RWD     1                                          X  5  3483  U (U1 R            304
2108 20 74  CWPRC   CW    NEWEST                                     X  4  3488  ) V98              304
2109 20 75  TPRD1   SW    100                                        X  4  3492  , 100              305
2110 20 76           MCW   LIPUT+1,1CO                                X  7  3496  M 187 100          305
2111 20 77           B     CTAPEX                                     X  4  3503  B W50              305
2112 20 78           NOP   TDFEXT                                    X  4  3507  N T44              305
2113 20 79           C     MAINX+19,HEADR                             X  7  3511  C 020 Y91          305
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2114 20 80           BU    TPRD1                                    X  5  3518  B D92 /            305
2115 20 81   SOLUT   C     MAINX+7,'999'                            X  7  3523  C 008 H75          305
2116 20 82           BE    EOF1A                                    X  5  3530  B F56 S            306
2117 20 83   OPPENT  MCW   ADDCAL,INDEX1                            X  7  3535  M W08 089          306
2118 20 84   PRTNER  BCE   TPRD1,INDEX1-2,Y                         X  8  3542  B D92 087 Y        306
2119 20 85           SW    MAINX+5                                  X  4  3550  , 006              306
2120 20 86           C     0+X1,MAINX+7                             X  7  3554  C 0+0 008          306
2121 20 87           SAR   INDEX1                                   X  4  3561  Q 089              306
2122 20 88           BU    PRTNER                                   X  5  3565  B E42 /            307
2123 20 89           BW    TPRD1,1+X1                               X  8  3570  V D92 0+1 1        307
2124 20 90           CW    MAINX+5                                  X  4  3578  ) 006              307
2125 20 91           SW    1+X1                                     X  4  3582  , 0+1              307
2126 20 92           SW    NEWEST                                   X  4  3586  , V98              307
2127 20 93   COOKER  B     CTAPEX                                   X  4  3590  B W50              307
2128 20 94           NOP   TDFEXT                                   X  4  3594  N T44              307
2129 20 95           C     MAINX+18,WHOOPS                          X  7  3598  C 019 W05          308
2130 20 96           BE    SUBSET                                   X  5  3605  B J19 S            308
2131 20 97           C     MAINXX+19,INCLD                          X  7  3610  C 020 U59          308
2132 20 98           BE    SUBSET                                   X  5  3617  B J19 S            308
2133 20 99           C     MAINX+19,HEADR                           X  7  3622  C 020 Y91          308
2134 21 00           BE    SOLUT                                    X  5  3629  B E23 S            308
2135 21 01           MCW   CHARCC,MAINX+74                          X  7  3634  M U61 075          309
2136 21 02           LCA   LOPUT+1,100                              X  7  3641  L I98 100          309
2137 21 03           B     SBROT                                    X  4  3648  B 033              309
2138 21 04           B     COOKER                                   X  4  3652  B E90              309
2139 21 05   EOF1A   MCW   ADDCAL,INDEX1                            X  7  3656  M W08 089          309
2140 21 06   COMBL   BCE   CEXIT,INDEX1-2,Y                         X  8  3663  B G26 087 Y        309
2141 21 07           C     0+X1,'   '                               X  7  3671  C 0+0 H48          310
2142 21 08           SAR   INDEX1                                   X  4  3678  Q 089              310
2143 21 09           BE    CEXIT                                    X  5  3682  B G26 S            310
2144 21 10           BW    COMBL,1+X1                               X  8  3687  V F63 0+1 1        310
2145 21 11           BW    RWDEXT,NEWEST                            X  8  3695  V D83 V98 1        310
2146 21 12   *
2147 21 13   *  CREATE COMMENTS CARD FOR UNKNOWN  SUBROUTINES
2148 21 14   *
2149 21 15   UNKNWN  B     NOROT                                    X  4  3703  B T75              310
2150 21 16           SW    1+X1                                     X  4  3707  , 0+1              311
2151 21 17           MCW   3+X1,MAINX+10                            X  7  3711  M 0+3 011          311
2152 21 18           B     SBROT                                    X  4  3718  B 033              311
2153 21 19           B     COMBL                                    X  4  3722  B F63              311
2154 21 20   CEXIT   CS    CALLT                                    X  4  3726  / -73              311
2155 21 21           CS                                             X  1  3730  /                  311
2156 21 22           CW    100                                      X  4  3731  ) 100              311
2157 21 23           MCW   '999',PREVS                              X  7  3735  M H75 H72          312
2158 21 24   CEXIT1  B     0                                        X  4  3742  B 000              312
2159 21 25   SBGRD   SBR   GRAND+3                                 X  4  3746  H G57              312
2160 21 26           S     INDEX1+1                                 X  4  3750  S 090              312
2161 21 27   GRAND   BW    0,0+X2                                   X  8  3754  V 000 0-0 1        312
2162 21 28           S     '10',INDEX2+1                            X  7  3762  S I08 095          312
2163 21 29           A     '1',INDEX1                               X  7  3769  A H59 089          313
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 SEQ PG LIN  LABEL   OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
2164 21 30           B     GRAND                        X   4  3776  B G54             313
2165 21 31   CALLCD  CS    LMAINX                       X   4  3780  / 086             313
2166 21 32           B     CTAPE                        X   4  3784  B W50             313
2167 21 33           NOP   TDFEXT                       X   4  3788  N T44             313
2168 21 34           MCW   CHARCS,MAINX+74              X   7  3792  M U60 075         313
2169 21 35           SW    1                            X   4  3799  , 001             313
2170 21 36           B     THRU                         X   4  3803  B N82             314
2171 21 37   IOCSAV  DCW   =4                           X   4  3810                    314
2172 21 38   CHAINX  MCW   'R',MAINX+74                 X   7  3811  M H67 075         314
2173 21 39           B     WHYYY                        X   4  3818  B K97             314
2174 21 40   MIDLE   MCW   INDEX3,DECTB+X2             X   7  3822  M 099 UR2         314
2175 21 41           B     LOWER                        X   4  3829  B V46             314
2176 21 42   ABOVE   MCW   INDEX3,DECTB+X2             X   7  3833  M 099 UR2         314
2177 21 43           B     BELOW                        X   4  3840  B P94             315
2178 21 44           LTORG *                            X          3844
                     DCW   'B'                          X   1  3844          LIT     315
                           'N'                          X   1  3845          LIT     315
                           '  '                         X   3  3848          LIT     315
                           '7'                          X   1  3849          LIT     315
                           ' '                          X   1  3850          LIT     315
      1874   SAVXL2        =03                          X   3  3853          AREA    315
                           'DCW'                        X   3  3856          LIT     316
                           ' '                          X   2  3858          LIT     316
                           '1'                          X   1  3859          LIT     316
                           '52'                         X   2  3861          LIT     316
                           '510'                        X   3  3864          LIT     316
                           +10                          X   2  3866          LIT     316
                           'R'                          X   1  3867          LIT     316
                           '3'                          X   1  3868          LIT     317
                           ','                          X   1  3869          LIT     317
      1978   PREVS         =03                          X   3  3872          AREA    317
                           '999'                        X   3  3875          LIT     317
      2000                 'B    '                      X   5  3880          LIT     317
                           ')00'                        X   3  3883          LIT     317
                           '690'                        X   3  3886          LIT     317
                           '15'                         X   2  3888          LIT     318
                           '51'                         X   2  3890          LIT     318
                           '015'                        X   3  3893          LIT     318
                           '04'                         X   2  3895          LIT     318
      2063   SAVX3         =03                          X   3  3898          AREA    318
                           'I99'                        X   3  3901          LIT     318
                           'I'                          X   1  3902          LIT     318
                           'I9F'                        X   3  3905          LIT     319
                           'M'                          X   1  3906          LIT     319
                           '10'                         X   2  3908          LIT     319
2179 21 45   *
2180 21 46   *  OUTPUT AREA
2181 21 47   *
2182 21 48           ORG   3912                         X              3912
2183 21 49   OUTPT   DA    1X86,G                       X      3912    3997          319
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
                    DCW   ' '                                       X   1  3998              GMARK  320
2184 21 50  LOPUT  EQU   *-1                                        X      3997
2185 21 51         EX                                              X           B 000              321
2186 21 52         END   START                                     X           / Z00 080          324
```

3 ERRORS

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CLEAR STORAGE 1      ,008015,019026,030,034041,045,053,0570571026                                                    1
CLEAR STORAGE 2      L068112,102106,113/101099/I99,027A070028)027B00102708O261,001/00111310                          2
BOOTSTRAP            ,008015,022029,036040,047054,061068,072/061039                  ,0010011040                    3


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

 101  1 01   003    JOB   1401 AUTOCODER-PASS 3-TRANSLATOR-INITIAL  -VERSION 3
 102  1 02          CTL   630 1
 103  1 03   *
 104  1 04   *EQUATES
 105  1 05   *
 106  1 06   INTAPE EQU   (U6                                                            (U6
 107  1 07   OUTAPE EQU   (U4                                                            (U4
 108  1 08   SYSTAP EQU   (U1                                                            (U1
 109  1 09   INITAP EQU   (U0                                                            (U0
 110  1 10   XXXX   EQU   0000                                                          0000
 111  1 11   PRINT  EQU   200                                                           0200
 112  1 12   LIBRN  EQU   000                                                           0000
 113  1 13   *
 114  1 14   *TAPE REDUNDANCY ROUTINE
 115  1 15   *
 116  1 16          ORG   RTEND+1                                                             2210
 117  1 17   TPERR  SBR   XL3                                                       4   2210  H 099                4
 118  1 18          SBR   REDXT+3                                                   4   2214  H K82                4
 119  1 19          MZ    +9,XL3                                                    7   2218  Y M60 099            4
 120  1 20          MCW   4000-10+X3,TPINS+7   BRING IN INSTRUCTION               7   2225  M I10 K73            4
 121  1 21          MN    TPINS+3,BSP1+3        THAT CAUSED                       7   2232  D K69 K49            4
 122  1 22          MCW   TPINS+7,INST2+7       REDUNDANCY                        7   2239  M K73 L82            4
 123  1 23   BSP1   BSP   INITAP                BACKSPACE TAPE                    5   2246  U (U0 B              5
 124  1 24          BCE   WRTRD,TPINS+7,W       Q. WRITE REDUNDANCY               8   2251  B L55 K73 W          5
 125  1 25          MCW   +9,RDCT=1             INITIALIZE COUNTER                7   2259  M M60 M61            5
 126  1 26   TPINS  RT    INITAP,XXXX           RE-READ                           8   2266  M (U0 000 R          5
 127  1 27          BER   RDERR                 Q. REDUNDANT AGAIN                5   2274  B K83 L              5
 128  1 28   REDXT  B     XXXX                  EXIT                              4   2279  B 000                5
 129  1 29   RDERR  MN    TPINS+3,BSP2+3                                          7   2283  D K69 K93            6
 130  1 30   BSP2   BSP   INITAP                BACKSPACE AGAIN                   5   2290  U (U0 B              6
 131  1 31          S     +1,RDCT               REDUCE COUNTER                    7   2295  S M62 M61            6
 132  1 32          BWZ   TPINS,RDCT,B          Q. 10 SUCCESSIVE READS            8   2302  V K66 M61 B          6
 133  1 33          MN    TPINS+3,TPHLT+6                                         7   2310  D K69 L23            6
 134  1 34   TPHLT  H     XXXX,390              HALT                              7   2317  . 000 390            7
 135  1 35          MCW   TPINS+7,*+8                                            7   2324  M K73 L38            7
 136  1 36          RT    INITAP,XXXX           RE-READ                           8   2331  M (U0 000 R          7
 137  1 37          BSS   BSP1,E                DETERMINE OPTION                  5   2339  B K46 E              7
 138  1 38          H     XXXX,302              HALT AGAIN                        7   2344  . 000 302            7
 139  1 39          B     REDXT                 EXIT                              4   2351  B K79                7
 140  1 40   WRTRD  SKP   SYSTAP                ERASE TAPE                        5   2355  U (U1 E              8
 141  1 41          BCE   SBCTR,WRTCR-1,5       Q. FIFTY SKIPS                    8   2360  B L92 M63 5          8
 142  1 42          A     +1,WRTCR=2            INCREASE COUNTER                  7   2368  A M62 M64            8
 143  1 43   INST2  WT    INITAP,XXXX           RE-WRITE                          8   2375  M (U0 000 W          8
 144  1 44          BER   BSP1                  Q. REDUNDANT AGAIN                5   2383  B K46 L              8
 145  1 45          B     REDXT                                                   4   2388  B K79                8
 146  1 46   SBCTR  S     WRTCR                 RESET COUNTER                     4   2392  S M64                9
 147  1 47          MN    TPINS+3,*+7                                             7   2396  D K69 M09            9
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SEQ  PG LIN  LABEL   OP     OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
148   1 48           H      XXXX,360          HALT              7  2403  . 000 360          9
149   1 49           B      INST2                               4  2410  B L75              9
150   1 50   *
151   1 51   * NOISE RECORD ROUTINE
152   1 52   *
153   1 53   NOISE  SBR    XL3                                 4  2414  H 099              9
154   1 54           SBR    NSXT+3                              4  2418  H M52              9
155   1 55           MZ     +9,XL3                              7  2422  Y M60 099          9
156   1 56   N2     BCE    4000-12+X3, XXXX,  SCAN FOR GROUP MARK  8  2429  B IH8 000         10
157   1 57           CHAIN  12                                                    MACRO
158                  BCE                                        1  2437  B          GEN     10
159                  BCE                                        1  2438  B          GEN     10
160                  BCE                                        1  2439  B          GEN     10
161                  BCE                                        1  2440  B          GEN     10
162                  BCE                                        1  2441  B          GEN     10
163                  BCE                                        1  2442  B          GEN     10
164                  BCE                                        1  2443  B          GEN     11
165                  BCE                                        1  2444  B          GEN     11
166                  BCE                                        1  2445  B          GEN     11
167                  BCE                                        1  2446  B          GEN     11
168                  BCE                                        1  2447  B          GEN     11
169                  BCE                                        1  2448  B          GEN     11
170   1 58   NSXT   B      XXXX                                4  2449  B 000              11
171   1 59   OBJCOR DCW    '3'               OBJECT CORE SIZE CODE  1  2453                     12
172   1 60   HIVAL  DCW    '  999'           HIGHEST OBJECT ADDRESS  5  2458                     12
173   1 61   MANAM  DCW    '='               EQUALS = OR A       1  2459                     12
174   1 62          LTORG  *                                                2460
                    DCW    +9                                  1  2460          LIT     12
       125 RDCT            =01                                 1  2461          AREA    12
                           +1                                  1  2462          LIT     12
       142 WRTCR           =02                                 2  2464          AREA    12
175   1 63   *
176   1 64   *BEGIN     OF MAIN LINE
177   1 65   *
178   1 66   BEGIN  RWD    INTAPE            REWIND INPUT TAPE   5  2465  U (U6 R            13
179   1 67          RWD    5                 REWIND 5            5  2470  U (U5 R            13
180   1 68          CS     3999              CLEAR INPUT AREA    4  2475  / I99              13
181   1 69          RTW    SYSTAP,001        READ LOWER HALF OF  8  2479  L (U1 001 R        13
182   1 70          NOP    0                  PASS 3             4  2487  N 000              13
183   1 71          BER    TPERR                                 5  2491  B K10 L            13
184   1 72          SW     GMK1,GMK2         INITIALIZE GROUP MARKS  7  2496  , I89 187          13
185   1 73          CW     SYSMK2                                4  2503  ) +03              14
186   1 74          CS     080               CLEAR READ AREA     4  2507  / 080              14
187   1 75          SW     EQVADD            INITIALIZE TO UNDEF  4  2511  , A69              14
188   1 76          RWD    OUTAPE            RWD OUTPUT TAPE     5  2515  U (U4 R            14
189   1 77          MCW    +FREE+13,N2+6                         7  2520  M R20 M35          14
190   1 78          MCW    'N',N3            CRIPPLE TEST FOR NOISE  7  2527  M R21 573          14
191   1 79          MCW    'N',N4                                7  2534  M R21 558          14
192   1 80          RT     5,FREE+1          READ IN MACRO FACTOR  8  2541  M (U5 101 R        15
193   1 81          B      NOISE              WHICH IS           4  2549  B M14              15
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
194  1 82           BER   TPERR                                      5  2553  B K10 L             15
195  1 83           RWD   5                                          5  2558  U (U5 R             15
196  1 84           MCW   FREE+3,JOBLBL=3                           7  2563  M 103 R24           15
197  1 85           ZA    '101',ALTRNC                               7  2570  + R27 184           15
198  1 86   *
199  1 87   * PROCESS JOB CARD
200  1 88   *
201  1 89           B     GET                                        4  2577  B 524               16
202  1 90           BCE   GENJOB,FREE+6,*                            8  2581  B Q53 106 *         16
203  1 91           C     FREE+18,'JOB'                              7  2589  C 118 R30           16
204  1 92           BU    GENJOB                                     5  2596  B Q53 /             16
205  1 93   CODJOB  MCW   JOBLBL,FREE+8                             7  2601  M R24 108           16
206  1 94           WT    OUTAPE,FREE+1                              8  2608  M (U4 101 W         16
207  1 95           NOP   0                                          4  2616  N 000               17
208  1 96           BER   TPERR                                      5  2620  B K10 L             17
209  1 97           A     +1,ALTRNO                                  7  2625  A R31 184           17
210  1 98           B     GET                                        4  2632  B 524               17
211  1 99           MCW   'B',N3                                    7  2636  M R32 573           17
212  2 00           MCW   'M',N4                                    7  2643  M R33 558           17
213  2 01   *
214  2 02   *PROCESS CONTROL CARD
215  2 03   *
216  2 04           C     FREE+18,'CTL'                              7  2650  C 118 R36           18
217  2 05           BU    CHNAD                                      5  2657  B Q85 /             18
218  2 06           CS    0                                          4  2662  / 000               18
219  2 07           SBR   CLEAR+3                                    4  2666  H 085               18
220  2 08           SBR   SVSZ=3                                     4  2670  H R39               18
221  2 09           BWZ   PROSZ,CLEAR+3,2                           8  2674  V P02 085 2         18
222  2 10   CLEAR   CS    15999                                      4  2682  / I9I               18
223  2 11           SBR   CLEAR+3                                    4  2686  H 085               19
224  2 12           C     CLEAR+3,'I99'                              7  2690  C 085 R42           19
225  2 13           BU    CLEAR                                      5  2697  B 082 /             19
226  2 14   PROSZ   MCW   '6',PHOLD=1                               7  2702  M R43 R44           19
227  2 15           BWZ   CSZ,SVSZ,B                                8  2709  V P54 R39 B         19
228  2 16           MCW   '5',PHOLD                                  7  2717  M R45 R44           19
229  2 17           BWZ   CSZ,SVSZ,K                                8  2724  V P54 R39 K         20
230  2 18           MCW   '4',PHOLD                                  7  2732  M R46 R44           20
231  2 19           BWZ   CSZ,SVSZ,S                                8  2739  V P54 R39 S         20
232  2 20           MCW   '3',PHOLD                                  7  2747  M R47 R44           20
233  2 21   CSZ     C     FREE+21,PHOLD                              7  2754  C 121 R44           20
234  2 22           BE    INOBJ                                      5  2761  B P97 S             21
235  2 23           MESSG 'INCORRECT PROCESSOR MACHINE SIZE SPECIFIED',42                  MACRO
236     02          CS    332                                        4  2766  / 332       GEN     21
237     03          CS                                               1  2770  /           GEN     21
238     04          MCW   'INCORRECT PROCESSOR MACHINE SIZE SPECIFIED',42+200  7  2771  M R89 242   GEN     21
239     05          W                                                1  2778  2           GEN     21
240     07          BCV   *+5                                        5  2779  B P88 '     GEN     21
241     08          B     *+3                                        4  2784  B P90       GEN     21
242     09          CC    1                                          2  2788  F 1         GEN     22
243  2 24           MCW   PHOLD,FREE+21                             7  2790  M R44 121           22
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
244   2 25    INOBJ  MCW   FREE+22,OBJCOR      SAVE OBJECT MACH CODE   7  2797  M 122 M53         22
245   2 26           ZA    OBJCOR,XL1                                  7  2804  + M53 089         22
246   2 27           S     +30,XL1+1                                   7  2811  S R91 090         22
247   2 28           A     XL1                 CODE -HIVAL-            4  2818  A 089             22
248   2 29           MCW   OBJTBL+X1,HIVAL-3                           7  2822  M R/1 M55         23
249   2 30           C     FREE+22,'3'         Q. OBJECT CORE GT 4K    7  2829  C 122 R47         23
250   2 31           BL    GETMN                                       5  2836  B 419 T           23
251   2 32           BCE   SETHI,FREE+24,1     Q. MA HARDWARE          8  2841  B Q99 124 1       23
252   2 33           B     IS4K                                        4  2849  B Q92             23
253   2 34    GENJOB BSP   INTAPE                                      5  2853  U (U6 B           23
254   2 35           MCW   FREE+74,FREE+73                             7  2858  M 174 173         24
255   2 36           MCW   'JOB  ',FREE+20     GENERATE JOB CARD       7  2865  M R96 120         24
256   2 37           MCW                                               1  2872  M                 24
257   2 38           MCW   FREE+74,FREE+15     BLANK AREA              7  2873  M 174 115         24
258   2 39           MCW                                               1  2880  M                 24
259   2 40           B     CODJOB                                      4  2881  B 001             24
260   2 41    CHNAD  MCW   +SUBXL,INTXT+3       INITIALIZE EXIT         7  2885  M R99 463         24
261   2 42    IS4K   MCW   'A',MANAM                                   7  2892  M +00 M59         25
262   2 43    SETHI  MCW   '03',HIVAL-3                                7  2899  M +02 M55         25
263   2 44           B     GETMN                                       4  2906  B 419             25
264   2 45    OBJTBL DCW   '03'                                        2  2911                    25
265   2 46           DCW   '07'                                        2  2913                    25
266   2 47           DCW   '11'                                        2  2915                    25
267   2 48           DCW   '15'                                        2  2917                    25
268   2 49           LTORG *                                                2918
      189            DCW   +FREE+13                                    3  2920  113         ADCON  26
                           'N'                                         1  2921              LIT    26
      196    JOBLBL        =03                                         3  2924              AREA   26
                           '101'                                       3  2927              LIT    26
                           'JOB'                                       3  2930              LIT    26
                           +1                                          1  2931              LIT    26
                           'B'                                         1  2932              LIT    26
                           'M'                                         1  2933              LIT    27
                           'CTL'                                       3  2936              LIT    27
      220    SVSZ          =03                                         3  2939              AREA   27
                           'I99'                                       3  2942              LIT    27
                           '6'                                         1  2943              LIT    27
      226    PHCLD         =01                                         1  2944              AREA   27
                           '5'                                         1  2945              LIT    27
                           '4'                                         1  2946              LIT    28
                           '3'                                         1  2947              LIT    28
      238                  'INCORRECT PROCESSOR MACHINE SIZE SPECIFIED' 42 2989              LIT    30
                           +30                                         2  2991              LIT    30
      255                  'JOB  '                                     5  2996              LIT    30
      260                  +SUBXL                                      3  2999  634         ADCON  30
                           'A'                                         1  3000              LIT    30
                           '03'                                        2  3002              LIT    31
269   2 50    SYSMK2 DCW   ' '                 SYSTEM GROUP MARK       1  3003                     31
270   2 51           XFR   000                                                 B 000               32
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
271  2 52          JOB   1401 AUTOCODER-PASS 3 LEFT MAIN LINE -VERSION 3
272  2 53   *
273  2 54   *INITIALIZATION OF INDEX LOCATIONS
274  2 55   *
275  2 56          XINIT XL1,XL2,XL3                                                    MACRO
276    01   XL1    EQU   089                                          0089              GEN
277    02   089    DCW   000                                       3  0089              GEN      35
278    04   091    DC    00                                        2  0091              GEN      35
279    05   XL2    EQU   094                                          0094              GEN
280    06   094    DCW   000                                       3  0094              GEN      35
281    08   096    DC    00                                        2  0096              GEN      35
282    09   XL3    EQU   099                                          0099              GEN
283    10   099    DCW   000                                       3  0099              GEN      35
284    12   100    DC    0                                         1  0100              GEN      35
285  2 57   *
286  2 58   *FREE FORM INPUT AREA
287  2 59   *
288  2 60          ORG   101                                              0101
289  2 61   FREE   EQU   100                                          0100
290  2 62          DA    1X86                                       0101  0186              35
291  2 63                1,1                                        0101        FIELD     35
292  2 64                19,19                                      0119        FIELD     35
293  2 65                16,16                                      0116        FIELD     35
294  2 66                6,6                                        0106        FIELD     36
295  2 67                21,21                                      0121        FIELD     36
296  2 68   ALTRNO       81,84                                      0184        FIELD     36
297  2 69                85,85                                      0185        FIELD     36
298  2 70   GMK2   DC    ' '                                     1  0187                  37
299  2 71   *
300  2 72   *FIXED FORM INPUT AREA
301  2 73   *
302  2 74          ORG   333                                              0333
303  2 75   INPUT  EQU   *                                            0332
304  2 76          DA    1X86                                       0333  0418              37
305  2 77                40,40                                      0372        FIELD     37
306  2 78                17,17                                      0349        FIELD     37
307  2 79                28,28                                      0360        FIELD     37
308  2 80                39,39                                      0371        FIELD     38
309  2 81                76,76                                      0408        FIELD     38
310  2 82   *
311  2 83   * GET UPPER HALF OF PASS 3
312  2 84   *
313  2 85   GETMN  RTW   SYSTAP,BEGIN                             8  0419  L (U1 M65 R       38
314  2 86          NOP   0                                       4  0427  N 000             38
315  2 87          BER   TPERR                                   5  0431  B K10 L           38
316  2 88          MCW   MANAM,MASYM-3                           7  0436  M M59 B93         38
317  2 89          RTW   SYSTAP,OVL2                             8  0443  L (U1 626 R       38
318  2 90          NOP   0                                       4  0451  N 000             39
319  2 91          BER   TPERR                                   5  0455  B K10 L           39
320  2 92   INTXT  B     NUREC                                   4  0460  B 626             39
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
321  2 93   *
322  2 94   * GET FIXED FORM OVERLAY
323  2 95   *
324  2 96   GTFIX  RTW   SYSTAP,OVL2                              8  0464  L (U1 626 R          39
325  2 97          NOP   0                                       4  0472  N 000                39
326  2 98          BER   TPERR                                   5  0476  B K10 L              39
327  2 99          BSP   SYSTAP                                  5  0481  U (U1 B              39
328  3 00          BSP   SYSTAP                                  5  0486  U (U1 B              40
329  3 01          BW    PROFIX,FREESW                           8  0491  V 661 H09 1          40
330  3 02          B     RSTMOD                                  4  0499  B 638                40
331  3 03   *
332  3 04   * GET FREE FORM OVERLAY
333  3 05   *
334  3 06   GTFRE  RTW   SYSTAP,OVL2                              8  0503  L (U1 626 R          40
335  3 07          NOP   0                                       4  0511  N 000                40
336  3 08          BER   TPERR                                   5  0515  B K10 L              40
337  3 09          B     PSTNU                                   4  0520  B 630                40
338  3 10   *
339  3 11   *GET ROUTINE
340  3 12   *
341  3 13   GET    SBR   GETXT+3                                 4  0524  H 553                41
342  3 14          B     RDTAP                                   4  0528  B 554                41
343  3 15          MCW   INAREA+79,FREE+80                       7  0532  M I82 180            41
344  3 16          CHAIN 4                                                   MACRO
345                MCW                                           1  0539  M                    GEN  41
346                MCW                                           1  0540  M                    GEN  41
347                MCW                                           1  0541  M                    GEN  41
348                MCW                                           1  0542  M                    GEN  41
349  3 17          MCW   INAREA+85,FREE+86                       7  0543  M I88 186            42
350  3 18   GETXT  B     XXXX                                    4  0550  B 000                42
351  3 19   RDTAP  SBR   RDXT+3                 READ TAPE         4  0554  H 585                42
352  3 20   N4     MCW   +INAREA+12,N2+6                         7  0558  M R43 M35            42
353  3 21          RT    INTAPE,INAREA                           8  0565  M (U6 I03 R          42
354  3 22   N3     B     NOISE                 CHECK FOR NOISE   4  0573  B M14                42
355  3 23          BER   TPERR                                   5  0577  B K10 L              42
356  3 24   RDXT   B     XXXX                                    4  0582  B 000                43
357  3 25   *
358  3 26   *PUT ROUTINE
359  3 27   *
360  3 28   PUT    SBR   PUTXT+3                                 4  0586  H 625                43
361  3 29          CW    FREE+21                                 4  0590  ) 121                43
362  3 30          WT    OUTAPE,FREE+1                           8  0594  M (U4 101 W          43
363  3 31          NOP   0                                       4  0602  N 000                43
364  3 32          BER   TPERR                                   5  0606  B K10 L              43
365  3 33          SW    FREE+21                                 4  0611  , 121                43
366  3 34          A     +1,ALTRNO             INCREASE ALTER NUMBER  7  0615  A R44 184        44
367  3 35   PUTXT  B     XXXX                                    4  0622  B 000                44
368  3 36   OVL2   DCW   0                                       1  0626                       44
369  3 37          DCW   ' '                   SYSTEM GROUP MARK 1  0627                       44
370  3 38          XFR   0                                                 B 000                45
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SEQ PG LIN LABEL OP OPERANDS SFX CT LOCN INSTRUCTION TYPE CARD

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SEQ  PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
371   3 39          JOB   1401 AUTOCODER-PASS 3 PROCESS FREE FORM  -VERSION 3
372   3 40   *
373   3 41   *BEGINNING OF NEW FREE FORM RECORD ANALYSIS
374   3 42   *
375   3 43          ORG   OVL2                                                  0626
376   3 44   NUREC  B     PUT                                        4  0626  B 586                 48
377   3 45   PSTNU  B     GET                                        4  0630  B 524                 48
378   3 46   SUBXL  SW    MODESW                                     4  0634  , +02                 48
379   3 47          CW    FREESW                                     4  0638  ) H09                 48
380   3 48          BCE   NUREC,FREE+6,*                           8  0642  B 626 106 *           48
381   3 49          BCE   REG,FREE+75,                             8  0650  B 991 175             48
382   3 50          BCE   REG,FREE+75,L                           8  0658  B 991 175 L           49
383   3 51          BCE   NUREC,FREE+75,S                         8  0666  B 626 175 S           49
384   3 52          BCE   NUREC,FREE+75,Z                         8  0674  B 626 175 Z           49
385   3 53          BCE   NUREC,FREE+85,R                         8  0682  B 626 185 R           49
386   3 54          C     FREE+18,'CHA'                            7  0690  C 118 R47             49
387   3 55          BCE   CKCHN,FREE+75,C                         8  0697  B 722 175 C           50
388   3 56          BCE   CKCHN,FREE+75,Y                         8  0705  B 722 175 Y           50
389   3 57          BU    NUREC                                    5  0713  B 626 /               50
390   3 58          B     PRCHN                                    4  0718  B 727                 50
391   3 59   CKCHN  BU    REG                                      5  0722  B 991 /               50
392   3 60   PRCHN  ZA    FREE+22,WAREA2                           7  0727  + 122 A14             50
393   3 61          BCE   *+5,WAREA2,+                            8  0734  B 746 A14 +           51
394   3 62          B     *+8                                      4  0742  B 753                 51
395   3 63          ZA    WAREA2-1,WAREA2                          7  0746  + A13 A14             51
396   3 64          BCE   *+5,FREE+75,C                           8  0753  B 765 175 C           51
397   3 65          B     *+8                                      4  0761  B 772                 51
398   3 66          MCW   'S',FREE+75                              7  0765  M R48 175             51
399   3 67          BCE   *+5,FREE+75,Y                           8  0772  B 784 175 Y           52
400   3 68          B     *+8                                      4  0780  B 791                 52
401   3 69          MCW   'Z',FREE+75                              7  0784  M R49 175             52
402   3 70          B     PUT                                      4  0791  B 586                 52
403   3 71          C     WAREA2,+00        ACCOUNT FOR CHAIN 00   7  0795  C A14 R51             52
404   3 72          BL    *+5                                      5  0802  B 811 T               52
405   3 73          B     PSTNU                                    4  0807  B 630                 52
406   3 74          MCW   FREE+75,HLDCD=1                          7  0811  M 175 R52             53
407   3 75          MCW   'C',FREE+75                              7  0818  M R53 175             53
408   3 76          BCE   BLNKX,HLDCD,R                           8  0825  B 848 R52 R           53
409   3 77          BCE   BLNKX,HLDCD,S                           8  0833  B 848 R52 S           53
410   3 78          MCW   'Y',FREE+75                              7  0841  M R54 175             53
411   3 79   BLNKX  MCW   BLNK2,FREE+74                           7  0848  M A55 174             54
412   3 80          MCW   FREE+74                                  4  0855  M 174                 54
413   3 81          MCW   SAVOP                                    4  0859  M R88                 54
414   3 82          MCW                                            1  0863  M                     54
415   3 83          MCW                                            1  0864  M                     54
416   3 84          MCW   FREE+74,FREE+5    BLANK PAGE/LINE        7  0865  M 174 105             54
417   3 85   CHNLP  B     PUT                                      4  0872  B 586                 54
418   3 86          MCW   FREE+74,FREE+11   BLANK LABEL FIELD      7  0876  M 174 111             55
419   3 87          S     +1,WAREA2                                7  0883  S R44 A14             55
420   3 88          C     WAREA2,+00                               7  0890  C A14 R51             55
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SEQ  PG LIN  LABEL  OP    OPERANDS                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
421   3 89          BL    CHNLP                                    5  0897  B 872 T             55
422   3 90          B     PSTNU                                    4  0902  B 630               55
423   3 91  GENPS   MCW   '+1 ',FREE+15                           7  0906  M R57 115           55
424   3 92          B     PUT                                      4  0913  B 586               56
425   3 93          MCW   FREE+73,FREE+72      TO HIGHEST ADDRESS OF  7  0917  M 173 172         56
426   3 94          MCW   'C',FREE+75          OBJECT CORE            7  0924  M R53 175         56
427   3 95          MCW   HIVAL,FREE+25                             7  0931  M M58 125         56
428   3 96          MCW   'EQU  '                                   4  0938  M R62              56
429   3 97          MCW                                            1  0942  M                  56
430   3 98          MCW   '$HIVAL +P '                            4  0943  M R72              56
431   3 99          MCW   FREE+73                                  4  0947  M 173              57
432   4 00          MCW   +NUREC,GENPS+3                          7  0951  M R75 909          57
433   4 01          MCW   'B',ISHIV                               7  0958  M R76 969          57
434   4 02          B     NUREC                                    4  0965  B 626              57
435   4 03  ISHIV   NOP   PSTNU                                    4  0969  N 630              57
436   4 04          MCW   HIVAL,FREE+25          SET NEW HIGHEST VALUE  7  0973  M M58 125         57
437   4 05          MCW   'B',PSSW2                                7  0980  M R76 ≠37          58
438   4 06          B     TSTRE                                    4  0987  B ≠53              58
439   4 07  REG     S     XL3+1                                    4  0991  S 100              58
440   4 08          S                                              1  0995  S                  58
441   4 09          S                                              1  0996  S                  58
442   4 10          C     FREE+18,'   '                            7  0997  C 118 R79          58
443   4 11          BU    SVUP3                                    5  1004  B ≠17 /            58
444   4 12          BCE   TSTRE,FREE+19,                           8  1009  B ≠53 119          59
445   4 13  SVUP3   MCW   FREE+20,SAVCP=9                         7  1017  M 120 R88          59
446   4 14          MCW                                            1  1024  M                  59
447   4 15          C     FREE+11, '$HIVAL'      Q. HIVAL EQUATE PRESNT  7  1025  C 111 R94         59
448   4 16          BE    ISHIV                                    5  1032  B 969 S            59
449   4 17  PSSW2   NOP   TSTRE                                    4  1037  N ≠53              59
450   4 18          C     FREE+10,'$P   '        Q. ARITH MACRO PRESENT  7  1041  C 110 R99         59
451   4 19          BE    GENPS                                    5  1048  B 906 S            60
452   4 20  TSTRE   BCE   ISREA,FREE+85,R                         8  1053  B ≠96 185 R        60
453   4 21          B     TLUOP                  LOOKUP MNEMONIC   4  1061  B M65              60
454   4 22  STFUN   MCW   FREE+15,SAVCP-5                         7  1065  M 115 R83          60
455   4 23          BW    NUREC,EQVADD           Q. INSTRUCTION    8  1072  V 626 A69 1        60
456   4 24          C     FREE+15,'3 '                             7  1080  C 115 +01          60
457   4 25          BE    EOJ                                      5  1087  B Q75 S            61
458   4 26          B     NUREC                                    4  1092  B 626              61
459   4 27  ISREA   SW    FREE+12                                  4  1096  , 112              61
460   4 28          LCA   FREE+15,EQVADD                         7  1100  L 115 A69          61
461   4 29          CW    FREE+12                                  4  1107  ) 112              61
462   4 30          BCE   TYPCL,FREE+15,+                        8  1111  B /26 115 +          61
463   4 31          CHAIN 3                                                        MACRO
464                 BCE                                            1  1119  B          GEN     61
465                 BCE                                            1  1120  B          GEN     62
466                 BCE                                            1  1121  B          GEN     62
467   4 32          B     STFUN                                    4  1122  B ≠65              62
468   4 33  TYPCL   SW    EQVADD-2                                 4  1126  , A67              62
469   4 34          BCE   STFUN,FREE+12,+                        8  1130  B ≠65 112 +        62
470   4 35          SW    EQVADD-1                                 4  1138  , A68              62
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SEQ  PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
471   4 36          BCE   STFUN,FREE+13,+                           8  1142  B ‡65 113 +         62
472   4 37          SW    EQVADD                                    4  1150  , A69               63
473   4 38          B     STFUN                                     4  1154  B ‡65               63
474   4 39          DCW   0                                         1  1158                      63
475   4 40          DCW   ' '                 SYSTEM GROUP MARK     1  1159                      63
476   4 41          XFR   0                                                 B 000               64
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
477  4 42           JOB   1401 AUTOCODER-PASS 3 PROCESS FIX FORM  -VERSION 3
478  4 43           ORG   OVL2                                                  0626
479  4 44   *
480  4 45   *BEGINNING OF NEW FIXED FORM RECORD ANALYSIS
481  4 46   *
482  4 47   ENTSPS B      PUT                          PUT LAST RECORD          4  0626  B 586                 67
483  4 48          BW     GTFRE,FREESW                 Q. FREE DONE IN FIXED    8  0630  V 503 H09 1           67
484  4 49   RSTMOD CW     MODESW=1,ABSW                RESET SWITCHES           7  0638  ) +02 A10             67
485  4 50          B      RDTAP                        GET A RECORD             4  0645  B 554                 67
486  4 51          MCW    INAREA+79,INPUT+80           MOVE TO FIXED FORM       7  0649  M I82 412             67
487  4 52          CHAIN  5                                                                 MACRO
488                MCW                                                         1  0656  M                 GEN 67
489                MCW                                                         1  0657  M                 GEN 67
490                MCW                                                         1  0658  M                 GEN 68
491                MCW                                                         1  0659  M                 GEN 68
492                MCW                                                         1  0660  M                 GEN 68
493  4 53   PROFIX MCW    INPUT+80,FREE+80             MOVE IDENTIFICATION      7  0661  M 412 180             68
494  4 54          MCW    BLANK,FREE+75                SET OPERAND PORTION      7  0668  M A54 175             68
495  4 55          MCW    FREE+75                       OF -FREE- TO BLANKS     4  0675  M 175                 68
496  4 56          MCW    FREE+75,FREE+20              SET BALANCE TO BLANK     7  0679  M 175 120             68
497  4 57          MCW                                                         1  0686  M                     69
498  4 58          MCW                                                         1  0687  M                     69
499  4 59          MCW    INPUT+82,FREE+86             BLANK CODE POSITIONS     7  0688  M 414 186             69
500  4 60          MCW    INPUT+13,FREE+11             MOVE LABEL AND PG/LINE   7  0695  M 345 111             69
501  4 61          MCW    INPUT+5                       NO TO -FREE-            4  0702  M 337                 69
502  4 62          BCE    COMCRD,INPUT+8,*             Q. COMMENTS CARD         8  0706  B Y71 340 *           69
503  4 63          BCE    LBERR,FREE+11,,              CHECK FOR INVALID        8  0714  B 778 111 ,           69
504  4 64          CHAIN  4                             CHARACTERS IN LABELS                     MACRO
505                BCE                                                         1  0722  B                 GEN 70
506                BCE                                                         1  0723  B                 GEN 70
507                BCE                                                         1  0724  B                 GEN 70
508                BCE                                                         1  0725  B                 GEN 70
509  4 65          BCE    LBERR,FREE+10,-                                      8  0726  B 778 110 -           70
510  4 66          CHAIN  4                                                                 MACRO
511                BCE                                                         1  0734  B                 GEN 70
512                BCE                                                         1  0735  B                 GEN 70
513                BCE                                                         1  0736  B                 GEN 71
514                BCE                                                         1  0737  B                 GEN 71
515  4 67          BCE    LBERR,FREE+10,=                                      8  0738  B 778 110 =           71
516  4 68          CHAIN  4                                                                 MACRO
517                BCE                                                         1  0746  B                 GEN 71
518                BCE                                                         1  0747  B                 GEN 71
519                BCE                                                         1  0748  B                 GEN 71
520                BCE                                                         1  0749  B                 GEN 71
521  4 69          BCE    LBERR,FREE+10,+                                      8  0750  B 778 110 +           72
522  4 70          CHAIN  4                                                                 MACRO
523                BCE                                                         1  0758  B                 GEN 72
524                BCE                                                         1  0759  B                 GEN 72
525                BCE                                                         1  0760  B                 GEN 72
526                BCE                                                         1  0761  B                 GEN 72
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SEQ  PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
527   4 71          BCE   LBERR,FREE+10,‡                             8  0762  B 778 110 ‡         72
528   4 72          CHAIN 4                                                                MACRO
529                 BCE                                               1  0770  B             GEN   72
530                 BCE                                               1  0771  B             GEN   73
531                 BCE                                               1  0772  B             GEN   73
532                 BCE                                               1  0773  B             GEN   73
533   4 73          B     BCK1                                        4  0774  B 798           GEN   73
534   4 74  LBERR   CS    332                                         4  0778  / 332           GEN   73
535   4 75          CS                                                1  0782  /               GEN   73
536   4 76          MCW   'ILLEGAL LABEL - SEQUENCE NUMBER',231       7  0783  M +33 231       GEN   73
537   4 77          MCS   ALTRNO,236                                  7  0790  Z 184 236       GEN   74
538   4 78          W                                                 1  0797  2               GEN   74
539   4 79  BCK1    C     INPUT+15,BLNK2          Q. ACTUAL OP CODE   7  0798  C 347 A55       GEN   74
540   4 80          BE    ABSFIX                   PRESENT IN FIXED FORM 5 0805  B S70 S         GEN   74
541   4 81          MCW   BLNK2,SAVOP                                 7  0810  M A55 R88       GEN   74
542   4 82          MCW   INPUT+16                                    4  0817  M 348           GEN   74
543   4 83          MCW   INPUT+16,FREE+18        MOVE MNEMONIC TO FREE 7  0821  M 348 118       GEN   74
544   4 84  TLUFIX  S     XL3+1                   RESET INDEX LOCATIONS 4  0828  S 100           GEN   75
545   4 85          S                              TO ZERO            1  0832  S               GEN   75
546   4 86          S                                                 1  0833  S               GEN   75
547   4 87          B     TLUOP                   LOOKUP MNEMONIC     4  0834  B M65           GEN   75
548   4 88          BW    FIXINS,EQVADD           Q. INSTRUCTION      8  0838  V 854 A69 1     GEN   75
549   4 89          BCE   FOUND,EQVADD,           Q. CONTROL OP       8  0846  B T40 A69       GEN   75
550   4 90          *
551   4 91          * PROCESS INSTRUCTION
552   4 92          *
553   4 93  FIXINS  BCE   LKNOP,INPUT+17,         Q. A OPERAND        8  0854  B 974 349       GEN   75
554   4 94          BCE   FIXALF,INPUT+17,'       Q. ALPHA LITERAL    8  0862  B /84 349 '     GEN   76
555   4 95          B     SCAN                    SCAN A OPERAND      4  0870  B Z09           GEN   76
556   4 96  CKB     BCE   CKMOD,INPUT+28,         Q. B OPERAND        8  0874  B 950 360       GEN   76
557   4 97          A     +1,XL2                  MOVE COMMA TO FREE  7  0882  A R44 094       GEN   76
558   4 98          MCW   ',',FREE+21+X2           TO SEPARATE OPERANDS 7 0889  M +34 1K1       GEN   76
559   4 99          A     +1,XL2                                      7  0896  A R44 094       GEN   77
560   5 00          MCW   '011',XL1                                   7  0903  M +37 089       GEN   77
561   5 01          BCE   FIXALF,INPUT+28,'       Q. ALPHA  LITERAL   8  0910  B /84 360 '     GEN   77
562   5 02          B     SCAN                    SCAN B OPERAND      4  0918  B Z09           GEN   77
563   5 03  CKOP    C     INPUT+16,'B  '          Q. BRANCH INSTRUCTION 7 0922  C 348 +40      GEN   77
564   5 04          BE    MAKBCE                                      5  0929  B ‡40 S         GEN   77
565   5 05          C     INPUT+16,'  B'          Q. ACTUAL BRANCH INST 7 0934  C 348 +43      GEN   78
566   5 06          BE    MOVMOD                                      5  0941  B ‡18 S         GEN   78
567   5 07          B     LKNOP                                       4  0946  B 974           GEN   78
568   5 08  CKMOD   C     INPUT+16,'B  '          Q. BRANCH INSTRUCTION 7 0950  C 348 +40      GEN   78
569   5 09          BE    ALTROP                                      5  0957  B ‡51 S         GEN   78
570   5 10          C     INPUT+16,'  B'          Q. ACTUAL BRANCH INST 7 0962  C 348 +43      GEN   78
571   5 11          BE    ALTROP                                      5  0969  B ‡51 S         GEN   79
572   5 12  LKNOP   C     INPUT+16,'NCP'          Q. NOP INSTRUCTION  7  0974  C 348 +46      GEN   79
573   5 13          BE    CKNOP                                       5  0981  B /46 S         GEN   79
574   5 14          BW    PICKUP,ABSW             Q. ACTUAL OP CODE   8  0986  V ‡29 A10 1     GEN   79
575   5 15          BCE   PICKUP,INPUT+39,        Q. D CHARACTER      8  0994  B ‡29 371       GEN   79
576   5 16  ISMOD   BCE   MOVMOD,FREE+15,         Q. ILLEGAL OP       8  1002  B ‡18 115       GEN   80
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
577   5 17           BWZ   IOTYP,FREE+15,2                 Q. I/O INSTRUCTION      8  1010  V /54 115 2        80
578   5 18   MOVMOD  MCW   INPUT+39,FREE+23+X2             MOVE D CHARACTER TO     7  1018  M 371 1K3          80
579   5 19           MCW   ','                              FREE AREA               4  1025  M +34              80
580   5 20   PICKUP  MCW   INPUT+55,FREE+72                PICKUP COMMENTS         7  1029  M 387 172          80
581   5 21           B     ENDFIX                                                  4  1036  B 626              80
582   5 22   MAKBCE  MCW   'BCE',FREE+18                   MOVE -BCE- MNEMONIC     7  1040  M +49 118          81
583   5 23           B     ISMOD                            TO OPERATION FIELD     4  1047  B ‡02              81
584   5 24   ALTROP  BCE   PICKUP,INPUT+39,                Q. D CHARACTER, I.E.,   8  1051  B ‡29 371          81
585   5 25           MCW   'BIN',FREE+18                   UNCONDITIONAL BRANCH    7  1059  M +52 118          81
586   5 26           MCW   '+ B',FREE+15                   SET FIVE CHAR BRANCH    7  1066  M +55 115          81
587   5 27           S     XL1+1                                                   4  1073  S 090              81
588   5 28           MCW   BLNK2,FREE+20                                         7  1077  M A55 120          82
589   5 29   TLUBIN  C     BINTBL+X1,INPUT+39               SEARCH 5-CHARACTER      7  1084  C H/4 371          82
590   5 30           BE    BINFND                           BRANCH TABLE FOR        5  1091  B /15 S            82
591   5 31           BCE   MOVMOD,BINTBL+5+X1,              APPROPRIATE UNIQUE      8  1096  B ‡18 H/9          82
592   5 32           A     +5,XL1                           MNEMONIC. IF NOT        7  1104  A +56 089          82
593   5 33           B     TLUBIN                           PRESENT LEAVE           4  1111  B ‡84              82
594   5 34   BINFND  MCW   BINTBL-1+X1,FREE+19              MNEMONIC -BIN-          7  1115  M H/3 119          83
595   5 35           MCW                                                           1  1122  M                  83
596   5 36           C     FREE+18,'BSS'                    Q. BRANCH SENSE SWITCH  7  1123  C 118 +59          83
597   5 37           BE    MOVMOD                                                  5  1130  B ‡18 S            83
598   5 38           MCW   INPUT+39,FREE+14                 PICKUP D CHARACTER      7  1135  M 371 114          83
599   5 39           B     PICKUP                                                  4  1142  B ‡29              83
600   5 40   CKNOP   BCE   PICKUP,INPUT+39,                                       8  1146  B ‡29 371          83
601   5 41   IOTYP   MCW   INPUT+39,FREE+14                 CODE I/O INSTRUCTIONS   7  1154  M 371 114          84
602   5 42           MCW   '+'                              IN ACTUAL IN            4  1161  M +60              84
603   5 43           MCW   INPUT+39,FREE+20                 OPERATION FIELD         7  1165  M 371 120          84
604   5 44           MCW   FREE+15                                                 4  1172  M 115              84
605   5 45           MCW   BLANK3                                                  4  1176  M A56              84
606   5 46           B     PICKUP                                                  4  1180  B ‡29              84
607   5 47   FIXALF  BCE   ENDALF,INPUT+27+X1,'            SCAN FOR ENDING ' SIGN  8  1184  B S18 3V9 '        84
608   5 48           CHAIN 8                                                                        MACRO
609                  BCE                                                           1  1192  B                  GEN  85
610                  BCE                                                           1  1193  B                  GEN  85
611                  BCE                                                           1  1194  B                  GEN  85
612                  BCE                                                           1  1195  B                  GEN  85
613                  BCE                                                           1  1196  B                  GEN  85
614                  BCE                                                           1  1197  B                  GEN  85
615                  BCE                                                           1  1198  B                  GEN  85
616                  BCE                                                           1  1199  B                  GEN  86
617   5 49   VALUE   A     +1,XL2                           PROCESS STATEMENT AS    7  1200  A R44 094          86
618   5 50           MCW   '$$',FREE+21+X2                 UNPROCESSABLE ALPHA     7  1207  M +62 1K1          86
619   5 51           B     WHCHOP                           LITERAL ILLEGAL OPND    4  1214  B S54              86
620   5 52   ENDALF  SBR   WAREA3                          PICKUP LITERAL AND      4  1218  H A15              86
621   5 53           S     +VALUE+2,WAREA3                  MOVE TO FREE FORM       7  1222  S +65 A15          86
622   5 54           ZS    WAREA3                           AREA                    4  1229  - A15              86
623   5 55           A     WAREA3,XL1                                              7  1233  A A15 089          87
624   5 56           A     WAREA3,XL2                                              7  1240  A A15 094          87
625   5 57           MCW   INPUT+17+X1,FREE+21+X2                                 7  1247  M 3U9 1K1          87
626   5 58   WHCHOP  C     XL1,'011'                        EXIT ON BASIS OF WHICH  7  1254  C 089 +37          87
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
627   5 59           BH    CKB                        OPERAND ACTING UPON   5  1261  B 874 U           87
628   5 60           B     CKOP                                             4  1266  B 922             87
629   5 61   ABSFIX  BCE   SAMFIX,INPUT+16,          PRINT OUT MESSAGE ONLY  8  1270  B T28 348         88
630   5 62           MCW   INPUT+16,FREE+19          ONCE THAT ACTUAL OPS    7  1278  M 348 119         88
631   5 63           MCW   INPUT+39,FREE+20          ARE PRESENT IN FIXED    7  1285  M 371 120         88
632   5 64   SW1     NOP   SETABS                     FORM IMAGES             4  1292  N T20             88
633   5 65           CS    332                        THIS ACCOUNTS FOR       4  1296  / 332             88
634   5 66           CS                               THE POSSIBILITY THAT    1  1300  /                 88
635   5 67           MCW   'ACTUAL OP CODES PRESENT IN FIXED FORM IMAGES',270  7  1301  M A09 270         88
636   5 68           CC    1                          THE USER FORGOT TO      2  1308  F 1               89
637   5 69           W                                USE AN ENTER            1  1310  2                 89
638   5 70           CC    1                          AUTOCODER STATEMENT     2  1311  F 1               89
639   5 71           MCW   'B',SW1                     WHEN RETURNING TO       7  1313  M R76 S92         89
640   5 72   SETABS  SW    ABSW=1                     FREE FORM               4  1320  , A10             89
641   5 73           B     TLUFIX                                           4  1324  B 828             89
642   5 74   SAMFIX  MCW   SAVOP,FREE+20             PROCESS SAME OP CODE    7  1328  M R88 120         89
643   5 75           MCW                                                    1  1335  M                 90
644   5 76           B     TLUFIX                                           4  1336  B 828             90
645   5 77   *
646   5 78   * BEGINNING OF PROCESS CONTROL AND DECLARATIVE OPERATION CODES
647   5 79   *
648   5 80   FOUND   BW    FIXINS,EQVADD              DETERMINE TYPE OF       8  1340  V 854 A69 1       90
649   5 81           S     XL3+1                      CONTROL OP AND GO TO    4  1348  S 100             90
650   5 82           MN    EQVADD-1,XL3               APPROPRIATE ROUTINE     7  1352  D A68 099         90
651   5 83           A     XL3                                              4  1359  A 099             90
652   5 84           A     XL3                                              4  1363  A 099             90
653   5 85           B     *+1+X3                                           4  1367  B TG1             91
654   5 86           B     BADOP                      DA ILLEGAL IN FIXED FM  4  1371  B P28             91
655   5 87           B     DCWSTM                     GO TO CONSTANT RTN      4  1375  B U84             91
656   5 88           B     ERHLT                      SHOULD NEVER OCCUR      4  1379  B U73             91
657   5 89           B     ONEOP                      END, EX, XFR            4  1383  B X60             91
658   5 90           B     ONEOP                      GO TO SUFFIX RTN        4  1387  B X60             91
659   5 91           B     ERHLT                      SHOULD NEVER OCCUR      4  1391  B U73             91
660   5 92           B     CKLOR                      GO TO ORIGIN RTN        4  1395  B Y89             92
661   5 93           B     DSTYP                      GO TO DS, EQU RTN       4  1399  B X88             92
662   5 94           B     INSPC                      GO TO SPECIAL ROUTINE   4  1403  B U21             92
663   5 95           MCW   INPUT+55,FREE+59                                   7  1407  M 387 159         92
664   5 96           MCW                               TO FREE FORM AREA      1  1414  M                 92
665   5 97           MCW                                                      1  1415  M                 92
666   5 98           MCW                                                      1  1416  M                 92
667   5 99           B     ENDFIX                                           4  1417  B 626             93
668   6 00   INSPC   BCE   NOPND,INPUT+17,           PROCESS                 8  1421  B U62 349         93
669   6 01           MCW   'B',FREE+18                CC AND CCB AND SS       7  1429  M R76 118         93
670   6 02           MCW   EQVADD-2,EQVADD           AND SSB                 7  1436  M A67 A69         93
671   6 03           LCA   BLANK                                            4  1443  L A54             93
672   6 04           MCW   EQVADD,FREE+15                                   7  1447  M A69 115         93
673   6 05           MCW   ' +'                                             4  1454  M A12             94
674   6 06           B     FIXINS                                           4  1458  B 854             94
675   6 07   NOPND   MCW   INPUT+39,FREE+21          PROCESS TWO CHARACTER   7  1462  M 371 121         94
676   6 08           B     ENDFIX                     INSTRUCTIONS            4  1469  B 626             94
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
677   6 09   ERHLT   H     0,301                SYSTEM ERROR HALT    7  1473  . 000 301         94
678   6 10           B     ERHLT                                     4  1480  B U73             94
679   6 11   *
680   6 12   *PROCESS DCW, DC STATEMENTS
681   6 13   *
682   6 14   DCWSTM BCE   DCWTYP,INPUT+17,*    Q. DCW*              8  1484  B V51 349 *       94
683   6 15           A     BLANK,INPUT+17       ASSURE NOT BLANK     7  1492  A A54 349         95
684   6 16           MCW   FREE+18,WAREA6=6     GENERATE EQUATE      7  1499  M 118 A18         95
685   6 17           MCW                         FOR DCW ACTUAL      1  1506  M                 95
686   6 18           MCW   'EQU',FREE+18                            7  1507  M A21 118         95
687   6 19           MCW   '+P '                                    4  1514  M A24             95
688   6 20           MCW   INPUT+21,FREE+25                         7  1518  M 353 125         95
689   6 21           B     PUT                                       4  1525  B 586             95
690   6 22           MCW   FREE+74,FREE+73                         7  1529  M 174 173         96
691   6 23           MCW   INPUT+22,FREE+11     GENERATE FREE FORM   7  1536  M 354 111         96
692   6 24           MCW   WAREA6,FREE+18        DCW ACTUAL          7  1543  M A18 118         96
693   6 25           MCW                                             1  1550  M                 96
694   6 26   DCWTYP  CW    INPUT+40,INPUT+39    REMOVE WORD MARKS    7  1551  ) 372 371         96
695   6 27           CW    INPUT+28                                  4  1558  ) 360             96
696   6 28           BCE   DSARTN,FREE+14,J     Q. DSA STATEMENT     8  1562  B X15 114 J       97
697   6 29           BCE   KNOWN,INPUT+23,+     Q. IS THE LENGTH OF  8  1570  B W69 355 +       97
698   6 30           BCE   KNOWN,INPUT+23,-      THE CONSTANT TO BE  8  1578  B W69 355 -       97
699   6 31           BCE   KNOWN,INPUT+23,'      COMPUTED BY THE     8  1586  B W69 355 '       97
700   6 32           MN    INPUT+7,XL1           PROCESSOR           7  1594  D 339 089         97
701   6 33           MN                                              1  1601  D                 98
702   6 34           A     BLANK,XL1                                 7  1602  A A54 089         98
703   6 35           C     XL1,'032'            Q. COUNT GT 32 OR    7  1609  C 089 A27         98
704   6 36           BL    CORERR                LT ZERO. IF         5  1616  B W80 T           98
705   6 37           C     XL1,'000'             ERROR ATTEMPT TO    7  1621  C 089 A30         98
706   6 38           BE    CORERR                PROCESS RECORD ANYWAY 5 1628  B W80 S           98
707   6 39   RTNDCW  MCW   INPUT+23+X1,FREE+21+X1 CONSTANT TO FREE FORM 7  1633  M 3V5 1S1         98
708   6 40           MCW   '''',FREE+21          ENCLOSE DCW WITHIN  7  1640  M A31 121         99
709   6 41           MCW   '''',FREE+22+X1       AT SIGNS            7  1647  M A31 1S2         99
710   6 42   RSTWM   SW    INPUT+40,INPUT+39    RESET WORD MARKS     7  1654  , 372 371         99
711   6 43           SW    INPUT+28                                  4  1661  , 360             99
712   6 44           B     ENDFIX                                    4  1665  B 626             99
713   6 45   KNOWN   MCW   INPUT+55,FREE+53     PICKUP ENTIRE DCW AREA 7 1669  M 387 153        99
714   6 46           B     RSTWM                                     4  1676  B W54            100
715   6 47   CORERR  S     XL1+1                                     4  1680  S 090            100
716   6 48   LPERR   BCE   RTNDCW,INPUT+24+X1,  SCAN FOR FIRST BLANK 8  1684  B W33 3V6        100
717   6 49           A     +1,XL1                IN ATTEMPT TO CORRECT 7 1692  A R44 089        100
718   6 50           C     XL1,'52'             Q) END OF RECORD     7  1699  C 089 A33        100
719   6 51           BE    RTNDCW                                    5  1706  B W33 S          100
720   6 52           B     LPERR                                     4  1711  B W84            100
721   6 53   *
722   6 54   * PROCESS DSA STATEMENTS
723   6 55   *
724   6 56   DSARTN  S     XL2+2                PICKUP FIXED FORM DSA 4 1715  S 096            101
725   6 57           MCW   '011',XL1             AND PLACE IN FREE FOR 7 1719  M +37 089        101
726   6 58           B     SCAN                  FORM AREA           4  1726  B Z09            101
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SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
727   6 59           MCW   FREE+72,FREE+73          IF UNSIGNED MAKE SIGN    7  1730  M 172 173         101
728   6 60           MCW   '+'                       PLUS                     4  1737  M +60             101
729   6 61           BCE   RSTWM,INPUT+27,          Q. NO SIGN               8  1741  B W54 359         101
730   6 62           MCW   INPUT+27,FREE+21         SIGN ADDRESS CONSTANT    7  1749  M 359 121         102
731   6 63           B     RSTWM                                              4  1756  B W54             102
732   6 64   ONEOP   B     *+5,INPUT+17,            PROCESS THOSE            8  1760  B X72 349         102
733   6 65           B     SCAN                      INSTRUCTIONS            4  1768  B Z09             102
734   6 66           C     '3 ',EQVADD               THAT ONLY HAVE ONE OP   7  1772  C +01 A69         102
735   6 67           BE    PREOJ                   IF END CARD GOT TO EOJ    5  1779  B Q67 S           102
736   6 68           B     ENDFIX                                             4  1784  B 626             102
737   6 69   *
738   6 70   * PROCESS DS, EQU STATEMENTS
739   6 71   *
740   6 72   DSTYP   BCE   DSACT,INPUT+17,*        IF DS IS REALLY AN       8  1788  B Y33 349 *         103
741   6 73           BCE   *+5,INPUT+17,            EQU CHANGE OP           8  1796  B Y08 349           103
742   6 74           B     *+8                      CODE. ASSURE            4  1804  B Y15               103
743   6 75           NOP   BLANK,INPUT+17           OPERAND NOT BLANK       7  1808  N A54 349           103
744   6 76   DOEQU   MCW   'EQU',FREE+18                                     7  1815  M A21 118         103
745   6 77           MCW   'P',FREE+14                                       7  1822  M A34 114         104
746   6 78           B     ONEOP                                            4  1829  B X60             104
747   6 79   DSACT   SW    INPUT+6                 PROCESS DS ACTUAL        4  1833  , 338             104
748   6 80           A     BLANK,INPUT+7                                    7  1837  A A54 339         104
749   6 81           CW    INPUT+6                                          4  1844  ) 338             104
750   6 82           C     INPUT+7,'00'            Q. NO COUNT              7  1848  C 339 A36          104
751   6 83           BE    DOEQU                                            5  1855  B Y15 S           104
752   6 84           MCW   INPUT+7,FREE+22                                  7  1860  M 339 122         105
753   6 85           B     ENDFIX                                           4  1867  B 626             105
754   6 86   *
755   6 87   *PROCESS COMMENTS CARDS
756   6 88   *
757   6 89   COMCRD  MCW   INPUT+55,FREE+53        PROCESS COMMENTS CARDS   7  1871  M 387 153          105
758   6 90           CHAIN 7                                                                  MACRO
759                  MCW                                                    1  1878  M                 GEN  105
760                  MCW                                                    1  1879  M                 GEN  105
761                  MCW                                                    1  1880  M                 GEN  105
762                  MCW                                                    1  1881  M                 GEN  105
763                  MCW                                                    1  1882  M                 GEN  106
764                  MCW                                                    1  1883  M                 GEN  106
765                  MCW                                                    1  1884  M                 GEN  106
766   6 91           B     ENTSPS                                           4  1885  B 626             106
767   6 92   *
768   6 93   * PROCESS ORIGIN, LTORG STATEMENTS
769   6 94   *
770   6 95   CKLOR   BCE   ONEOP,FREE+16,0        CHANGE MNEMONIC TO       8  1889  B X60 116 0       106
771   6 96           MCW   'LTORG',FREE+20          -LTORG- IF LITERAL     7  1897  M A41 120         106
772   6 97           MCW                            ORG STATEMENT          1  1904  M                 106
773   6 98           B     ONEOP                                            4  1905  B X60             107
774   6 99   *
775   7 00   *SCAN ROUTINE WHICH CONVERTS FIXED FORM RECORDS INTO FREE FORM
776   7 01   *
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SEQ  PG LIN  LABEL  OP   OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
777   7 02   SCAN   SBR  SCNXT+3                                4  1909  H J20             107
778   7 03          S    XL3+1                RESET INDEX 3     4  1913  S 100             107
779   7 04   LOOP1  BCE  CK1BK,INPUT+18+X1,   Q. BLANK CHARACTER 8  1917  B Z62 3V0         107
780   7 05   CXL1   C    XL3,'05'             Q. END OF ADDRESS 7  1925  C 099 A43         107
781   7 06          BE   NDOPD                                   5  1932  B Z86 S           107
782   7 07          A    +1,XL1               INCREASE ALL INDEX 7  1937  A R44 089         107
783   7 08          A    +1,XL2                REGISTERS         7  1944  A R44 094         108
784   7 09          A    +1,XL3                                  7  1951  A R44 099         108
785   7 10          B    LOOP1                                   4  1958  B Z17             108
786   7 11   CK1BK  C    XL3,'04'             TOLERATE ONE BLANK 7  1962  C 099 A45         108
787   7 12          BE   NDOPD                 IN ADDRESS        5  1969  B Z86 S           108
788   7 13          BCE  *+5,INPUT+19+X1,                        8  1974  B Z86 3V1         108
789   7 14          B    CXL1                                    4  1982  B Z25             109
790   7 15   NDOPD  MCW  INPUT+17+X1,FREE+21+X2 MOVE ADDRESS PORTION 7  1986  M 3U9 1K1         109
791   7 16          C    XL1,'011'             TO FREE FORM AREA 7  1993  C 089 +37          109
792   7 17          S    XL1+2                                   4  2000  S 091             109
793   7 18          BH   *+8                                     5  2004  B -16 U           109
794   7 19          MCW  '011',XL1                               7  2009  M +37 089         109
795   7 20          BCE  CKLIT2,INPUT+23+X1,  Q. NO CHARACTER ADJ 8  2016  B J88 3V5         110
796   7 21          BWZ  MKMIN,INPUT+23+X1,K  ASSURE CHAR ADJ    8  2024  V J21 3V5 K       110
797   7 22          MCW  '+',INPUT+23+X1       + OR -            7  2032  M +60 3V5          110
798   7 23   RTN2   SW   INPUT+24+X1,INPUT+23+X1 PROCESS CHARACTER 7  2039  , 3V6 3V5         110
799   7 24          A    BLANK,INPUT+26+X1      ADJUSTMENT       7  2046  A A54 3V8         110
800   7 25          A    +4,XL2                                  7  2053  A A46 094         111
801   7 26          MCW  INPUT+26+X1,FREE+21+X2                  7  2060  M 3V8 1K1         111
802   7 27          MCW                                          1  2067  M                 111
803   7 28          CW   INPUT+24+X1,INPUT+23+X1                 7  2068  ) 3V6 3V5         111
804   7 29   NOADJ  BCE  FIXLIT,INPUT+17+X1,+  Q. LITERAL       8  2075  B J32 3U9 +       111
805   7 30          BCE  FIXLIT,INPUT+17+X1,-                    8  2083  B J32 3U9 -       111
806   7 31          BCE  SCNXT,INPUT+27+X1,    Q. INDEXING       8  2091  B J17 3V9         112
807   7 32          A    +3,XL2                PROCESS INDEXING  7  2099  A A47 094         112
808   7 33          MN   INPUT+27+X1,FREE+21+X2                  7  2106  D 3V9 1K1         112
809   7 34          MCW  '+X'                                    4  2113  M A49             112
810   7 35   SCNXT  B    XXXX                  EXIT              4  2117  B 000             112
811   7 36   MKMIN  MCW  '-',INPUT+23+X1       SET CHAR ADJ SIGN 7  2121  M A50 3V5         112
812   7 37          B    RTN2                   TO MINUS         4  2128  B -39             113
813   7 38   FIXLIT BCE  NOT11,INPUT+27+X1,    PROCESS REMAINDER OF 8  2132  B J58 3V9         113
814   7 39          A    +1,XL2                 FIXED FORM NUMERIC 7  2140  A R44 094         113
815   7 40          MN   INPUT+27+X1,FREE+21+X2  LITERAL         7  2147  D 3V9 1K1         113
816   7 41          B    SCNXT                                   4  2154  B J17             113
817   7 42   NOT11  BCE  SUBT,INPUT+26+X1,                       8  2158  B J70 3V8         113
818   7 43          B    SCNXT                                   4  2166  B J17             114
819   7 44   SUBT   A    'I99',XL1                               7  2170  A A53 089         114
820   7 45          A    'I99',XL2                               7  2177  A A53 094         114
821   7 46          B    NOT11                                   4  2184  B J58             114
822   7 47   CKLIT2 BCE  SCNXT,INPUT+17+X1,+  Q. LITERAL       8  2188  B J17 3U9 +       114
823   7 48          BCE  SCNXT,INPUT+17+X1,-                     8  2196  B J17 3U9 -       114
824   7 49          B    NOADJ                                   4  2204  B -75             115
825   7 50          DCW  0                                       1  2208                    115
826   7 51   SYSMK1 DCW  ' '               SYSTEM GROUP MARK     1  2209                    115
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
827   7 52           XFR   0                                                     B 000               116
828   7 53   RTEND   EQU   *                                                     2209
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
829  7 54           JOB   1401 AUTOCODER-PASS 3 RIGHT MAIN LINE  -VERSION 3
830  7 55   *
831  7 56   *TABLE LOOKUP OF MNEMONIC OP CODE
832  7 57   *
833  7 58           ORG   BEGIN                                                  2465
834  7 59   TLUOP   SBR   TLUXT+3                                  4   2465  H 046             119
835  7 60           C     FREE+18,BLANK3=3      Q. ACTUAL         7   2469  C 118 A56         119
836  7 61           BE    ABSCOD                 OP CODE          5   2476  B P55 S           119
837  7 62           MLC   FREE+18,XL2                             7   2481  M 118 094         119
838  7 63           A     FREE+18,XL2-1                           7   2488  A 118 093         119
839  7 64           A     FREE+18,XL2-2                           7   2495  A 118 092         119
840  7 65           A     FREE+16,XL2           TABLE LOOKUP      7   2502  A 116 094         120
841  7 66   SUB1    S     +5500,XL2+1            USES ADDRESS     7   2509  S A60 095         120
842  7 67           BWZ   SUB1,XL2+1,8          CONVERSION TECHNIQUE 8 2516  V N09 095 B       120
843  7 68           MLCWA OPND-549+X2,EQVADD=9                    7   2524  L BN9 A69         120
844  7 69           SAR   GETOP+3                                 4   2531  Q N42             120
845  7 70           S     XL2+2                                   4   2535  S 096             120
846  7 71   GETOP   MLCWA XXXX,EQVADD           SEARCH TABLE FOR  7   2539  L 000 A69         121
847  7 72           SAR   GETOP+3                MNEMONIC         4   2546  Q N42             121
848  7 73           BCE   BADOP,EQVADD,'        Q. OP NOT IN TABLE 8 2550  B P28 A69 '       121
849  7 74           C     EQVADD,FREE+18        Q. OP CODE FOUND  7   2558  C A69 118         121
850  7 75           BU    GETOP                                   5   2565  B N39 /           121
851  7 76           LCA   EQVADD-3,EQVADD       SHIFT TABLE FUNCTION 7 2570  L A66 A69         121
852  7 77           C     'N ',EQVADD           Q. ENTER CARD     7   2577  C A71 A69         122
853  7 78           BE    ENTER                                   5   2584  B 047 S           122
854  7 79           C     EQVADD,'B '           Q.MLC, MLCWA TYPE 7   2589  C A69 A73         122
855  7 80           BE    SPECIN                                  5   2596  B 083 S           122
856  7 81           C     EQVADD,'2 '           Q. RAMAC INSTN    7   2601  C A69 A75         122
857  7 82           BE    SPECIN                                  5   2608  B 083 S           122
858  7 83   SAVCOD  MCW   EQVADD,FREE+15        PLACE TABLE FUNCTION 7 2613  M A69 115         123
859  7 84           SBR   XL3                    ON RECORD PRECEDED BY 4 2620  H 099             123
860  7 85           C     XL3,+FREE+11           A PLUS SIGN       7   2624  C 099 A78         123
861  7 86           BE    *+8                                     5   2631  B 043 S           123
862  7 87           MCW   '+',000+X3                              7   2636  M +60 0+0         123
863  7 88   TLUXT   B     XXXX                  EXIT              4   2643  B 000             123
864  7 89   ENTER   C     FREE+23,'SPS'         DETERMINE TYPE OF 7   2647  C 123 A81         124
865  7 90           BE    GTFIX                  ENTER CARD AND   5   2654  B 464 S           124
866  7 91           C     INPUT+20,'AUTO'        GO TO APPROPRIATE 7  2659  C 352 A85         124
867  7 92           BE    GTFRE                  ROUTINE          5   2666  B 503 S           124
868  7 93           BW    PSTNU,MODESW                            8   2671  V 630 +02 1       124
869  7 94           B     RSTMOD                                  4   2679  B 638             124
870  7 95   SPECIN  BWZ   MLCTYP,EQVADD-1,B     Q. MLC TYPE       8   2683  V P17 A68 B       125
871  7 96           LCA   EQVADD-2,EQVADD                         7   2691  L A67 A69         125
872  7 97   CKEL    BCE   SAVCOD,FREE+19,       Q. SHOULD OP BE -L- 8 2698  B 013 119         125
873  7 98           MCW   'L',EQVADD           MAKE OP CODE -L-  7   2706  M A86 A69         125
874  7 99           B     SAVCOD                                  4   2713  B 013             125
875  8 00   MLCTYP  LCA   'M',EQVADD           MAKE OP -M-       7   2717  L A87 A69         126
876  8 01           B     CKEL                                    4   2724  B 098             126
877  8 02   *
878  8 03   * PROCESS ILLEGAL OPERATION CODE
```

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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
879  8 04   *
880  8 05   BADOP   LCA   BLANK,EQVADD          MAKE OP BLANK          7  2728  L A54 A69         126
881  8 06           BW    SAVCOD,FREESW         Q. IN FREE FORM MODE   8  2735  V 013 H09 1       126
882  8 07           BW    CKFF,MODESW           Q. IN FREE FORM MODE   8  2743  V Q01 +02 1       126
883  8 08           B     SAVCOD                                       4  2751  B 013             126
884  8 09   ABSCOD  BCE   SAVCOD,FREE+19,                             8  2755  B 013 119         127
885  8 10           LCA   BLANK,EQVADD          PROCESS ACTUAL OP      7  2763  L A54 A69         127
886  8 11           MCW   FREE+19,EQVADD         CODES                  7  2770  M 119 A69         127
887  8 12           BCE   SAVCOD,FREE+20,                             8  2777  B 013 120         127
888  8 13           CW    EQVADD                                       4  2785  ) A69             127
889  8 14           SW                                                 1  2789  ,                 127
890  8 15           MCW   FREE+20,EQVADD-1                           7  2790  M 120 A68         128
891  8 16           B     SAVCOD                                       4  2797  B 013             128
892  8 17   CKFF    BCE   SAVCOD,FREE+14,        IF RECORD APPEARS TO B 8  2801  B 013 114         128
893  8 18           MCW   FREE+80,INPUT+80       BE FIXED FORM RECORD   7  2809  M 180 412         128
894  8 19           CHAIN 9                                                                MACRO
895                 MCW                                                1  2816  M           GEN   128
896                 MCW                                                1  2817  M           GEN   128
897                 MCW                                                1  2818  M           GEN   128
898                 MCW                                                1  2819  M           GEN   129
899                 MCW                                                1  2820  M           GEN   129
900                 MCW                                                1  2821  M           GEN   129
901                 MCW                                                1  2822  M           GEN   129
902                 MCW                                                1  2823  M           GEN   129
903                 MCW                                                1  2824  M           GEN   129
904  8 20           CS    332                                          4  2825  / 332             129
905  8 21           CS                                                 1  2829  /                 130
906  8 22           MCW   FREE+80,PRINT+80                           7  2830  M 180 280         130
907  8 23           CHAIN 4                                                                MACRO
908                 MCW                                                1  2837  M           GEN   130
909                 MCW                                                1  2838  M           GEN   130
910                 MCW                                                1  2839  M           GEN   130
911                 MCW                                                1  2840  M           GEN   130
912  8 24           MCW   'PROCESSING AS FIXED FORM RECORD',332        7  2841  M B18 332         130
913  8 25           W                                                  1  2848  2                 131
914  8 26           SW    FREESW                                       4  2849  , H09             131
915  8 27           BCV   RESTR                                       5  2853  B Q62 '           131
916  8 28           B     GTFIX                                        4  2858  B 464             131
917  8 29   RESTR   CCB   GTFIX, 1                                    5  2862  F 464 1           131
918  8 30   *
919  8 31   * END OF JOB PROCEDURE
920  8 32   *
921  8 33   PRECJ   RTW   SYSTAP,OVL2           SKIP PAST OVERLAY      8  2867  L (U1 626 R       131
922  8 34   EOJ     B     PUT                   PUT END CARD           4  2875  B 586             131
923  8 35           WTM   OUTAPE                WRITE TAPE MARK        5  2879  U (U4 M           132
924  8 36           MESSG 'PASS 3 COMPLETED',60,K,1                                        MACRO
925    01           CC    K                                            2  2884  F K         GEN   132
926    02           CS    332                                          4  2886  / 332       GEN   132
927    03           CS                                                 1  2890  /           GEN   132
928    04           MCW   'PASS 3 COMPLETED',60+200                   7  2891  M B34 260   GEN   132
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SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
929		05		W				1	2898	2	GEN	132
930		06		CC	1			2	2899	F 1	GEN	132
931	8	37		CW	SYSMK1	CLEAR GROUP MK W/ WM		4	2901	) K09		133
932	8	38		CW	GMK1,GMK2			7	2905	) I89 187		133
933	8	39		RTW	SYSTAP,OVL2			8	2912	L (U1 626 R		133
934	8	40		RTW	SYSTAP,085	READ IN PASS 4		8	2920	L (U1 085 R		133
935	8	41		NOP	0			4	2928	N 000		133
936	8	42		BER	TPERR			5	2932	B K10 L		133
937	8	43		B	PASSB2	GO TO NEXT PASS		4	2937	B 200		134
938	8	44		LTORG	*					2941		
		352		DCW	+INAREA+12			3	2943	I15	ADCON	134
					+1			1	2944		LIT	134
					'CHA'			3	2947		LIT	134
					'S'			1	2948		LIT	134
					'Z'			1	2949		LIT	134
					+00			2	2951		LIT	134
		406	HLDCD		=01			1	2952		AREA	135
					'C'			1	2953		LIT	135
					'Y'			1	2954		LIT	135
					'+1 '			3	2957		LIT	135
		428			'EQU '			5	2962		LIT	135
		430			'$HIVAL +P '			10	2972		LIT	135
		432			+NUREC			3	2975	626	ADCON	135
					'B'			1	2976		LIT	136
					' '			3	2979		LIT	136
445			SAVCP		=09			9	2988		AREA	136
447					'$HIVAL'			6	2994		LIT	136
450					'$P '			5	2999		LIT	136
					'3 '			2	3001		LIT	136
484			MODESW		=01			1	3002		AREA	136
536					'ILLEGAL LABEL - SEQUENCE NUMBER'			31	3033		LIT	137
					','			1	3034		LIT	137
					'011'			3	3037		LIT	137
					'B '			3	3040		LIT	137
					' B'			3	3043		LIT	138
					'NOP'			3	3046		LIT	138
					'BCE'			3	3049		LIT	138
					'BIN'			3	3052		LIT	138
					'+ B'			3	3055		LIT	138
					+5			1	3056		LIT	138
					'BSS'			3	3059		LIT	138
					'+'			1	3060		LIT	139
					'$$'			2	3062		LIT	139
621					+VALUE+2			3	3065	S02	ADCON	139
635					'ACTUAL OP CODES PRESENT IN FIXED FORM IMAGES'			44	3109		LIT	141
640			ABSW		=01			1	3110		AREA	141
					' +'			2	3112		LIT	141
684			WAREA6		=06			6	3118		AREA	141
					'EQU'			3	3121		LIT	141
					'+P '			3	3124		LIT	142

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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
                         '032'                                       3  3127              LIT   142
                         '000'                                       3  3130              LIT   142
                         ''''                                        1  3131              LIT   142
                         '52'                                        2  3133              LIT   142
                         'P'                                         1  3134              LIT   142
                         '00'                                        2  3136              LIT   142
       771               'LTORG'                                     5  3141              LIT   143
                         '05'                                        2  3143              LIT   143
                         '04'                                        2  3145              LIT   143
                         +4                                          1  3146              LIT   143
                         +3                                          1  3147              LIT   143
                         '+X'                                        2  3149              LIT   143
                         '-'                                         1  3150              LIT   143
                         'I99'                                       3  3153              LIT   144
       835  BLANK3       =03                                         3  3156              AREA  144
                         +5500                                       4  3160              LIT   144
       843  EQVADD       =09                                         9  3169              AREA  144
                         'N '                                        2  3171              LIT   144
                         'B '                                        2  3173              LIT   144
                         '2 '                                        2  3175              LIT   144
       860               +FREE+11                                    3  3178  111         ADCON 145
                         'SPS'                                       3  3181              LIT   145
                         'AUTO'                                      4  3185              LIT   145
                         'L'                                         1  3186              LIT   145
                         'M'                                         1  3187              LIT   145
       912               'PROCESSING AS FIXED FORM RECORD'          31  3218              LIT   146
       928               'PASS 3 COMPLETED'                         16  3234              LIT   147
939  8 45   *
940  8 46   *TABLE OF MNEMONIC OPERATION CODES
941  8 47   *
942  8 48          ORG   3253                                                  3253
943  8 49          DCW   ':::'                                       1  3253              148
944  8 50          DCW   =4                                          4  3257              148
945  8 51          DCW   =2                                          2  3259              148
946  8 52          DCW   'NNOP'                                      4  3263              148
947  8 53          DCW   'C XFR'                                     5  3268              148
948  8 54          DCW   'O LOR'                                     5  3273              148
949  8 55          DCW   'I JOB'                                     5  3278              148
950  8 56          DCW   '/CS '                                      4  3282              149
951  8 57          DCW   'O DA '                                     5  3287              149
952  8 58          DCW   'S2WSS'                                     5  3292              149
953  8 59   MASYM  DCW   '=MA '                                      4  3296              149
954  8 60          DCW   '3 END'                                     5  3301              149
955  8 61          DCW   'PMCM'                                      4  3305              149
956  8 62          DCW   'N ENT'                                     5  3310              149
957  8 63          DCW   'BRMRTB'                                    6  3316              150
958  8 64          DCW   'ABBLC'                                     5  3321              150
959  8 65          DCW   ' '                                         1  3322              150
960  8 66          DCW   'BMMBC'                                     5  3327              150
961  8 67          DCW   '(D  '                                      4  3331              150
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SEQ  PG LIN  LABEL  OP   OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
962   8 68         DCW  'F3WM2 WDC'                                 9  3340                    150
963   8 69         DCW  ' FCCB'                                    5  3345                    150
964   8 70         DCW  'S1DUDCR'                                  7  3352                    151
965   8 71         DCW  'YMLZ'                                     4  3356                    151
966   8 72         DCW  ''M  '                                     4  3360                    151
967   8 73         DCW  'UEUSKP'                                   6  3366                    151
968   8 74         DCW  '0 ORG'                                    5  3371                    151
969   8 75         DCW  'HSBR'                                     4  3375                    151
970   8 76         DCW  'K8 SS '                                   6  3381                    151
971   8 77         DCW  'YMZ '                                     4  3385                    152
972   8 78         DCW  ' '                                        1  3386                    152
973   8 79         DCW  ')CW '                                     4  3390                    152
974   8 80         DCW  'UWLWTW'                                   6  3396                    152
975   8 81         DCW  'B MLC'                                    5  3401                    152
976   8 82         DCW  'ZMCS'                                     4  3405                    152
977   8 83         DCW  'UWMWT '                                   6  3411                    152
978   8 84         DCW  'MMCW'                                     4  3415                    153
979   8 85         DCW  'F2WM2 WDT'                                9  3424                    153
980   8 86         DCW  'QSAR'                                     4  3428                    153
981   8 87         DCW  'R6WRF'                                    5  3433                    153
982   8 88         DCW  'S1EUECR'                                  7  3440                    153
983   8 89         DCW  '8SRF'                                     4  3444                    153
984   8 90         DCW  ')2WM '                                    5  3449                    153
985   8 91         DCW  '1VBW '                                    5  3454                    154
986   8 92         DCW  '9BBC9'                                    5  3459                    154
987   8 93         DCW  '1R  '                                     4  3463                    154
988   8 94         DCW  'URLRTW'                                   6  3469                    154
989   8 95         DCW  'F1RMRD '                                  7  3476                    154
990   8 96         DCW  'F1RLRDW'                                  7  3483                    154
991   8 97         DCW  'MMU '                                     4  3487                    154
992   8 98         DCW  'VBWZ'                                     4  3491                    155
993   8 99         DCW  ',SW '                                     4  3495                    155
994   9 00         DCW  'RBBPC'                                    5  3500                    155
995   9 01         DCW  'CC  '                                     4  3504                    155
996   9 02         DCW  'C4PCB'                                    5  3509                    155
997   9 03         DCW  'DMLN'                                     4  3513                    155
998   9 04         DCW  'UMUWTM'                                   6  3519                    155
999   9 05         DCW  'EMCE'                                     4  3523                    156
1000  9 06         DCW  'C EX '                                    5  3528                    156
1001  9 07         DCW  ' UCU '                                    5  3533                    156
1002  9 08         DCW  'ZBBAV'                                    5  3538                    156
1003  9 09         DCW  '5RP '                                     4  3542                    156
1004  9 10         DCW  '.H  '                                     4  3546                    156
1005  9 11         DCW  'LLU '                                     4  3550                    156
1006  9 12         DCW  'BWMWTB'                                   6  3556                    157
1007  9 13         DCW  ' KSSB'                                    5  3561                    157
1008  9 14         DCW  'KBBEF'                                    5  3566                    157
1009  9 15         DCW  'PMRC'                                     4  3570                    157
1010  9 16         DCW  'UBUBSP'                                   6  3576                    157
1011  9 17         DCW  'URMRT '                                   6  3582                    157
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 SEQ  PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1012   9 18         DCW   'SBBE '                                      5  3587                    157
1013   9 19         DCW   '3WR '                                       4  3591                    158
1014   9 20         DCW   'SS  '                                       4  3595                    158
1015   9 21         DCW   'BB  '                                       4  3599                    158
1016   9 22         DCW   '1 DCW'                                      5  3604                    158
1017   9 23         DCW   'WBBE'                                       4  3608                    158
1018   9 24         DCW   'J DSA'                                      5  3613                    158
1019   9 25         DCW   'LLCA'                                       4  3617                    158
1020   9 26         DCW   'A DC '                                      5  3622                    159
1021   9 27         DCW   'F1WLWDW'                                    7  3629                    159
1022   9 28         DCW   '7WRP'                                       4  3633                    159
1023   9 29         DCW   ' BBIN'                                      5  3638                    159
1024   9 30         DCW   'KVBM '                                      5  3643                    159
1025   9 31         DCW   'PBBPB'                                      5  3648                    159
1026   9 32         DCW   '9SPF'                                       4  3652                    159
1027   9 33         DCW   'M SFX'                                      5  3657                    160
1028   9 34         DCW   '4P  '                                       4  3661                    160
1029   9 35         DCW   'FORMSD '                                    7  3668                    160
1030   9 36         DCW   ''BBCV'                                      5  3673                    160
1031   9 37         DCW   '-ZS '                                       4  3677                    160
1032   9 38         DCW   'O LTO'                                      5  3682                    160
1033   9 39         DCW   'P EQU'                                      5  3687                    160
1034   9 40         DCW   ' BBSS'                                      5  3692                    161
1035   9 41         DCW   'F8 CC '                                     6  3698                    161
1036   9 42         DCW   'AA  '                                       4  3702                    161
1037   9 43         DCW   'LBBER'                                      5  3707                    161
1038   9 44         DCW   '/BBU '                                      5  3712                    161
1039   9 45         DCW   'BBCE'                                       4  3716                    161
1040   9 46         DCW   'UBBH '                                      5  3721                    161
1041   9 47         DCW   'TBBL '                                      5  3726                    162
1042   9 48         DCW   'X DS '                                      5  3731                    162
1043   9 49         DCW   'F2RM2 RDT'                                  9  3740                    162
1044   9 50         DCW   'AMMBD'                                      5  3745                    162
1045   9 51         DCW   '2W  '                                       4  3749                    162
1046   9 52         DCW   'F1WMWD '                                    7  3756                    162
1047   9 53         DCW   'DMN '                                       4  3760                    162
1048   9 54         DCW   'C1RCB'                                      5  3765                    163
1049   9 55         DCW   '6WP '                                       4  3769                    163
1050   9 56         DCW   'XMIZ'                                       4  3773                    163
1051   9 57         DCW   =9                                          9  3782                    163
1052   9 58         DCW   =3                                          3  3785                    163
1053   9 59         DCW   '+ZA '                                       4  3789                    163
1054   9 60         DCW   =1                                          1  3790                    163
1055   9 61         DCW   'UUURWU'                                     6  3796                    164
1056   9 62         DCW   'URURWD'                                     6  3802                    164
1057   9 63         DCW   'R4RF '                                      5  3807                    164
1058   9 64  OPND   DCW   =1                                          1  3808                    164
1059   9 65  *
1060   9 66  * CONSTANTS AND TABLES
1061   9 67  *
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 SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1062   9 68   FREESW  DC    0                                             1  3809                    164
1063   9 69   BINTBL  DCW   'BAV Z'                                       5  3814                    164
1064   9 70           DCW   'BC9 9'                                       5  3819                    164
1065   9 71           DCW   'BU  /'                                       5  3824                    164
1066   9 72           DCW   'BCV ''                                       5  3829                    165
1067   9 73           DCW   'BE  S'                                       5  3834                    165
1068   9 74           DCW   'BEF K'                                       5  3839                    165
1069   9 75           DCW   'BER L'                                       5  3844                    165
1070   9 76           DCW   'BH  U'                                       5  3849                    165
1071   9 77           DCW   'BL  T'                                       5  3854                    165
1072   9 78           DCW   'BLC A'                                       5  3859                    165
1073   9 79           DCW   'BPB P'                                       5  3864                    166
1074   9 80           DCW   'BPCBR'                                       5  3869                    166
1075   9 81           DCW   'BSS B'                                       5  3874                    166
1076   9 82           DCW   'BSS C'                                       5  3879                    166
1077   9 83           DCW   'BSS D'                                       5  3884                    166
1078   9 84           DCW   'BSS E'                                       5  3889                    166
1079   9 85           DCW   'BSS F'                                       5  3894                    166
1080   9 86           DCW   'BSS G'                                       5  3899                    167
1081   9 87   *
1082   9 88   *TAPE INPUT AREA
1083   9 89   *
1084   9 90           DS    3                                                3902
1085   9 91   INAREA  DA    1X86,G                                           3903   3988             167
                      DCW   ' '                                         1  3989          GMARK    168
1086   9 92   GMK1    EQU   *                                              3989
1087   9 93   *
1088   9 94   *  EQUATES
1089   9 95   *
1090   9 96   BLANK   EQU   BLANK3-2                                        3154
1091   9 97   BLNK2   EQU   BLANK3-1                                        3155
1092   9 98   ENDFIX  EQU   ENTSPS                                         0626
1093   9 99   WAREA3  EQU   WAREA6-3                                       3115
1094  10 00   WAREA2  EQU   WAREA6-4                                       3114
1095  10 01           EX    LIBRN                                                B 000              169
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1096 10 02          JOB   1401 AUTOCODER-PASS 4-LEFT MAIN LINE -VERSION 3
1097 10 03          SFX   Z
1098 10 04   *
1099 10 05   * INITIALIZATION OF INDEX LOCATIONS
1100 10 06   *
1101 10 07          ORG   085                                     Z             0085
1102 10 08   GRPMK1 DC    ' '                                     Z   1 0085                  172
1103 10 09          DC    0                                       Z   1 0086                  172
1104 10 10   XL1    DCW   000                                     Z   3 0089                  172
1105 10 11          DC    00                                      Z   2 0091                  172
1106 10 12   XL2    DCW   000                                     Z   3 0094                  172
1107 10 13          DC    00                                      Z   2 0096                  172
1108 10 14   XL3    DCW   000                                     Z   3 0099                  172
1109 10 15          DS    1                                       Z     0100
1110 10 16   *
1111 10 17   *FIXED FORM IMAGE AREA
1112 10 18   *
1113 10 19   IMAGE  EQU   *                                       Z     0100
1114 10 20          DS    84                                      Z     0184
1115 10 21   GRPMK4 DC    ' '                                     Z   1 0185                  173
1116 10 22   ZONE   DCW   '2SKB'                                  Z   4 0189                  173
1117 10 23   EXOVFL DCW   99                  CONSTANTS USED IN   Z   2 0191                  173
1118 10 24   EXNUMB DCW   00                   MAKING LITERAL LABELS Z 2 0193                 173
1119 10 25   PROCOR DCW   =1                                      Z   1 0194                  173
1120 10 26   TOTLBL DCW   +0000                                   Z   4 0198                  174
1121 10 27   JOBSW  DCW   0                                       Z   1 0199                  174
1122 10 28   *
1123 10 29   * READ IN CONTROL CARD OVERLAP
1124 10 30   *
1125 10 31   PASSB2 RTW   SYSTAP,DOPROG                           Z   8 0200  L (U1 N75 R     174
1126 10 32          NOP   0                                       Z   4 0208  N 000           174
1127 10 33          BER   TPERR                                   Z   5 0212  B 221 L         174
1128 10 34          B     START                                   Z   4 0217  B N75           174
1129 10 35   *
1130 10 36   *TAPE REDUNDANCY ROUTINE
1131 10 37   *
1132 10 38   TPERR  SBR   XL3                                     Z   4 0221  H 099           174
1133 10 39          SBR   REDXT+3                                 Z   4 0225  H 293           175
1134 10 40          MZ    +9,XL3                                  Z   7 0229  Y 464 099       175
1135 10 41          MCW   4000-10+X3,TPINS+7  BRING IN INSTRUCTION Z  7 0236  M 110 284       175
1136 10 42          MN    TPINS+3,BSP1+3       THAT COUSED        Z   7 0243  D 280 260       175
1137 10 43          MCW   TPINS+7,INST2+7       REDUNDANCY        Z   7 0250  M 284 393       175
1138 10 44   BSP1   BSP   INITAP                BACKSPACE TAPE    Z   5 0257  U (U0 B         175
1139 10 45          BCE   WRTRD,TPINS+7,W       Q. WRITE REDUNDANCY Z 8 0262  B 366 284 W     176
1140 10 46          MCW   +9,RDCT=1             INITIALIZE COUNTER Z  7 0270  M 464 465       176
1141 10 47   TPINS  RT    INITAP,XXXX           RE-READ           Z   8 0277  M (U0 000 R     176
1142 10 48          BER   RDERR                 Q. REDUNDANT AGAIN Z  5 0285  B 294 L         176
1143 10 49   REDXT  B     XXXX                  EXIT              Z   4 0290  B 000           176
1144 10 50   RDERR  MN    TPINS+3,BSP2+3                          Z   7 0294  D 280 304       176
1145 10 51   BSP2   BSP   INITAP                BACKSPACE AGAIN   Z   5 0301  U (U0 B         177
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 SEQ PG LIN  LABEL  OP     OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1146 10 52          S      +1,RDCT          REDUCE COUNTER          Z  7  0306  S 466 465         177
1147 10 53          BWZ    TPINS,RDCT,B     Q. 10 SUCCESSIVE READS  Z  8  0313  V 277 465 B       177
1148 10 54          MN     TPINS+3,TPHLT+6                          Z  7  0321  D 280 334         177
1149 10 55  TPHLT   H      XXXX,490         HALT                    Z  7  0328  . 000 490         177
1150 10 56          MCW    TPINS+7,*+8                              Z  7  0335  M 284 349         178
1151 10 57          RT     INITAP,XXXX      RE-READ                 Z  8  0342  M (U0 000 R       178
1152 10 58          BSS    BSP1,E           DETERMINE OPTION        Z  5  0350  B 257 E           178
1153 10 59          H      XXXX,402         HALT AGAIN              Z  7  0355  . 000 402         178
1154 10 60          B      REDXT            EXIT                    Z  4  0362  B 290             178
1155 10 61  WRTRD   SKP    SYSTAP          ERASE TAPE               Z  5  0366  U (U1 E           178
1156 10 62          BCE    SBCTR,WRTCR-1,5  Q. FIFTY SKIPS         Z  8  0371  B 403 467 5       179
1157 10 63          A      +1,WRTCR=2       INCREASE COUNTER        Z  7  0379  A 466 468         179
1158 10 64  INST2   WT     INITAP,XXXX      RE-WRITE                Z  8  0386  M (U0 000 W       179
1159 10 65          BER    BSP1             Q. REDUNDANT AGAIN      Z  5  0394  B 257 L           179
1160 10 66          B      REDXT                                    Z  4  0399  B 290             179
1161 10 67  SBCTR   S      WRTCR            RESET COUNTER           Z  4  0403  S 468             179
1162 10 68          MN     TPINS+3,*+7                              Z  7  0407  D 280 420         180
1163 10 69          H      XXXX,460         HALT                    Z  7  0414  . 000 460         180
1164 10 70          B      INST2                                    Z  4  0421  B 386             180
1165 10 71  *
1166 10 72  * NOISE RECORD ROUTINE
1167 10 73  *
1168 10 74  NOISE   SBR    XL3                                      Z  4  0425  H 099             180
1169 10 75          SBR    NSXT+3                                   Z  4  0429  H 463             180
1170 10 76          MZ     +9,XL3                                   Z  7  0433  Y 464 099         180
1171 10 77  N2      BCE    4000-12+X3,XXXX,  SCAN FOR GROUP MARK    Z  8  0440  B IH8 000         181
1172 10 78          CHAIN  12                                                          MACRO
1173                BCE                                             Z  1  0448  B                 GEN  181
1174                BCE                                             Z  1  0449  B                 GEN  181
1175                BCE                                             Z  1  0450  B                 GEN  181
1176                BCE                                             Z  1  0451  B                 GEN  181
1177                BCE                                             Z  1  0452  B                 GEN  181
1178                BCE                                             Z  1  0453  B                 GEN  181
1179                BCE                                             Z  1  0454  B                 GEN  182
1180                BCE                                             Z  1  0455  B                 GEN  182
1181                BCE                                             Z  1  0456  B                 GEN  182
1182                BCE                                             Z  1  0457  B                 GEN  182
1183                BCE                                             Z  1  0458  B                 GEN  182
1184                BCE                                             Z  1  0459  B                 GEN  182
1185 10 79  NSXT    B      XXXX                                     Z  4  0460  B 000             182
1186 10 80          LTORG  *                                        Z           0464
                    DCW    +9                                       Z  1  0464                LIT  183
      1140  RDCT          =01                                      Z  1  0465                AREA 183
                          +1                                       Z  1  0466                LIT  183
      1157  WRTCR         =02                                      Z  2  0468                AREA 183
1187 10 81  *
1188 10 82  *END OF CONTROL CARD ANALYSIS, READ IN MAIN LINE
1189 10 83  *
1190 10 84  CWI98   CW     3998                                     Z  4  0469  ) I98             183
1191 10 85          SW     JOBSW                                    Z  4  0473  , 199             183
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 SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1192 10 86           B     PUT                               Z   4   0477  B 610             183
1193 10 87   RTNJB   CW    JOBSW                             Z   4   0481  ) 199             184
1194 10 88           B     WRTP                              Z   4   0485  B 578             184
1195 10 89   LOOPTB  RTW   SYSTAP,DOPROG  READ IN MAIN LINE  Z   8   0489  L (U1 N75 R       184
1196 10 90           NOP   0               OVERLAP           Z   4   0497  N 000             184
1197 10 91           BER   TPERR                             Z   5   0501  B 221 L           184
1198 10 92           CW    GRPMK5,GRPMK8                     Z   7   0506  ) N74 H99         184
1199 10 93           MLC   '0',FACTOR-3                     Z   7   0513  M M83 H45         184
1200 10 94   *
1201 10 95   *START OF MAIN LINE
1202 10 96   *
1203 10 97   BYPASS  B     GET             PROCESS BYPASSED CARDS Z   4   0520  B 538             185
1204 10 98           S     XL3+1                             Z   4   0524  S 100             185
1205 10 99           S                                       Z   1   0528  S                 185
1206 11 00           S                                       Z   1   0529  S                 185
1207 11 01           B     CKCOM                             Z   4   0530  B 706             185
1208 11 02   *
1209 11 03   *BEGINNING OF NEW CARD ANALYSIS
1210 11 04   *
1211 11 05   NUREC   B     PUT             PUT LAST RECORD   Z   4   0534  B 610             185
1212 11 06   GET     SBR   GETXT+3         GET ROUTINE       Z   4   0538  H 577             185
1213 11 07           CS    INPUT+80                          Z   4   0542  / 080             186
1214 11 08           SW    INPUT+21                          Z   4   0546  , 021             186
1215 11 09           SBR   N2+6,INPUT+13                     Z   7   0550  H 446 013         186
1216 11 10           RT    INTAP,INPUT+1   READ TAPE         Z   8   0557  M (U4 001 R       186
1217 11 11           B     NOISE           CHECK FOR NOISE   Z   4   0565  B 425             186
1218 11 12           BER   TPERR                             Z   5   0569  B 221 L           186
1219 11 13   GETXT   B     XXXX            EXIT              Z   4   0574  B 000             186
1220 11 14   *
1221 11 15   *IMAGE TO OUTPUT AREA
1222 11 16   *
1223 11 17   WRTP    SBR   WRTXT+3                           Z   4   0578  H 609             187
1224 11 18           WT    OUTAP,OUTPUT+1  WRITE TAPE       Z   8   0582  M (U5 I18 W       187
1225 11 19           NOP   0                                 Z   4   0590  N 000             187
1226 11 20           BER   TPERR                             Z   5   0594  B 221 L           187
1227 11 21           MLC   '000',HOLDC                      Z   7   0599  M M86 M91         187
1228 11 22   WRTXT   B     XXXX                              Z   4   0606  B 000             187
1229 11 23   PUT     SBR   PUTXT+3          PUT ROUTINE       Z   4   0610  H 705             187
1230 11 24           MLC   HOLDC,XL3                        Z   7   0614  M M91 099         188
1231 11 25           MLC   IMAGE+80,OUTPUT+80+X3  WORK AREA TO OUTPUT Z 7   0621  M 180 I17         188
1232 11 26           CHAIN 10                                                        MACRO
1233                 MLC                                     Z   1   0628  M           GEN   188
1234                 MLC                                     Z   1   0629  M           GEN   188
1235                 MLC                                     Z   1   0630  M           GEN   188
1236                 MLC                                     Z   1   0631  M           GEN   188
1237                 MLC                                     Z   1   0632  M           GEN   188
1238                 MLC                                     Z   1   0633  M           GEN   189
1239                 MLC                                     Z   1   0634  M           GEN   189
1240                 MLC                                     Z   1   0635  M           GEN   189
1241                 MLC                                     Z   1   0636  M           GEN   189
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 SEQ PG LIN  LABEL   OP     OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1242                MLC                                            Z  1  0637  M          GEN    189
1243 11 27  TPYET   A      +80,HOLDC=3                             Z  7  0638  A M88 M91          189
1244 11 28  CKTAP   BCE    WRTP,XL3-2,0          Q. WRITE YET      Z  8  0645  B 578 097 0        189
1245 11 29          BW     DCWXT, DCWSW2         Q. DCW GT 30 CHARS Z 8  0653  V J85 H92 1       190
1246 11 30          BW     SPGLIN,INITSW         Q. DA RECORD      Z  8  0661  V 692 H87 1       190
1247 11 31          CS     INPUT+80              CLEAR IMAGE AND   Z  4  0669  / 080             190
1248 11 32          SW     INPUT+21               INPUT AREAS      Z  4  0673  , 021             190
1249 11 33          MRCM   INPUT+1,IMAGE+1                         Z  7  0677  P 001 101          190
1250 11 34          BW     RTNJB,JOBSW           Q. JOB CARD       Z  8  0684  V 481 199 1       190
1251 11 35  SPGLIN  S      IMAGE+5               WIPE OUT PG/LIN NUMBR Z 4  0692  S 105           191
1252 11 36          S      XL3+1                 ZERO INDEX        Z  4  0696  S 100             191
1253 11 37          S                             LOCATIONS        Z  1  0700  S                 191
1254 11 38          S                                              Z  1  0701  S                 191
1255 11 39  PUTXT   B      XXXX                  EXIT              Z  4  0702  B 000             191
1256 11 40  SAVE2   ORG    *                                       Z     0706   0706
1257 11 41  CKCOM   BCE    BYPASS,INPUT+6,*      Q. COMMENTS CARD  Z  8  0706  B 520 006 *       191
1258 11 42          MN     INPUT+75,CK2+7                         Z  7  0714  D 075 735          191
1259 11 43          MZ     INPUT+75,CK2+7                         Z  7  0721  Y 075 735          192
1260 11 44  CK2     BCE    BYPASS,'RSWZ',0                        Z  8  0728  B 520 M95 0        192
1261 11 45          CHAIN  3                                                  MACRO
1262                BCE                                            Z  1  0736  B          GEN    192
1263                BCE                                            Z  1  0737  B          GEN    192
1264                BCE                                            Z  1  0738  B          GEN    192
1265 11 46          MLC    INPUT+84,IMAGE+80     ALTER NO TO FIXED FORM Z 7  0739  M 084 180      192
1266 11 47          BWZ    *+5,INPUT+6,2         Q. IS THERE LABEL Z  8  0746  V 758 006 2       192
1267 11 48          B      PROLBL                PROCESS LABEL     Z  4  0754  B V38             193
1268 11 49          MCW    INPUT+18,IMAGE+16     MNEMONIC TO FIXED FORM Z 7  0758  M 018 116      193
1269 11 50          SW     SCANSW                RESET SCAN SWITCH Z  4  0765  , N15             193
1270 11 51          MLC    '000',FREEA=3                          Z  7  0769  M M86 M98          193
1271 11 52          LCA    BLANK4,EQUADD         RETRIEVE TABLE FUNCTN Z 7  0776  L H62 N11      193
1272 11 53          MCW    'I9I',XL1              THAT WAS         Z  7  0783  M N01 089          193
1273 11 54  PLSCAN  BCE    PLUSFD,INPUT+15+X1,+   GENERATED BY PASS 3 Z 8  0790  B 817 0/5 +      194
1274 11 55  GOBK    C      XL1,'I9G'                              Z  7  0798  C 089 N04          194
1275 11 56          A      'I99',XL1                              Z  7  0805  A N07 089          194
1276 11 57          BL     PLSCAN                                 Z  5  0812  B 790 T            194
1277 11 58  PLUSFD  BCE    GOBK,INPUT+14+X1,+                     Z  8  0817  B 798 0/4 +        194
1278 11 59          SW     EQUADD+1+X1                            Z  4  0825  , N/2             194
1279 11 60          MCW    INPUT+15,EQUADD=4                      Z  7  0829  M 015 N11          195
1280 11 61          S      XL1+2                                  Z  4  0836  S 091             195
1281 11 62          BW     INSTR,EQUADD          Q. REGULAR INSTRUCTION Z 8  0840  V N75 N11 1    195
1282 11 63          BCE    CTRLOP,EQUADD,        Q. CONTROL OP     Z  8  0848  B C61 N11          195
1283 11 64          B      INSTR                                  Z  4  0856  B N75             195
1284 11 65  *
1285 11 66  *SCAN FOR COMMA OR BLANK
1286 11 67  *
1287 11 68  COMSCN  SBR    CSCNXT+3              INDEX LOCATION 3  Z  4  0860  H 932             195
1288 11 69          S      XL3+1                  CONTAINS TOTAL   Z  4  0864  S 100             195
1289 11 70          SW     INPUT+21+X2,SCANSW     POSITIONS SCANNED Z 7  0868  , 0K1 N15        196
1290 11 71  TSTCOM  A      +1,XL2                 INCLUDING COMMA OR Z 7  0875  A N12 094       196
1291 11 72          A      +1,XL3                 BLANK FOR OPERAND Z 7  0882  A N12 099       196
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1292 11 73           BCE   PRSCXT,INPUT+20+X2,,                    Z   8  0889  B 925 0K0 ,        196
1293 11 74           C     INPUT+21+X2,BLANK2                      Z   7  0897  C 0K1 H60         196
1294 11 75           BE    CSCNXT                                  Z   5  0904  B 929 S           197
1295 11 76           C     XL2,'54'                                Z   7  0909  C 094 N14         197
1296 11 77           BE    SCNERR                                  Z   5  0916  B 933 S           197
1297 11 78           B     TSTCOM                                  Z   4  0921  B 875             197
1298 11 79   PRSCXT  CW    SCANSW=1                                Z   4  0925  ) N15             197
1299 11 80   CSCNXT  B     XXXX                                    Z   4  0929  B 000             197
1300 11 81   SCNERR  MZ    BBIT,IMAGE+5                            Z   7  0933  Y 188 105         197
1301 11 82           BCE   CSCNXT,IMAGE+75,3                       Z   8  0940  B 929 175 3       198
1302 11 83           B     NUREC                                   Z   4  0948  B 534             198
1303 11 84   *
1304 11 85   *CONVERT FREE TO FIXED FORM
1305 11 86   *
1306 11 87   FR2FIX  SBR   FR2FXT+3                                Z   4  0952  H S32             198
1307 11 88           MCW   BLANK,W6AREA                            Z   7  0956  M H59 H77         198
1308 11 89           MCW   XL2+1,XL3+1                            Z   7  0963  M 095 100         198
1309 11 90   SCNDEX  C     XL3,'04'                ANY CHARACTER ADJ Z   7  0970  C 099 N17         198
1310 11 91           BH    DOADRS                   OR INDEXING      Z   5  0977  B /50 U           199
1311 11 92           BE    CKADJ                                   Z   5  0982  B ≠17 S           199
1312 11 93           C     INPUT+18+X3,'+X'        Q. INDEXING      Z   7  0987  C 0A8 N19         199
1313 11 94           BU    CKADJ                   PROCESS INDEXING Z   5  0994  B ≠17 /           199
1314 11 95           MN    INPUT+19+X3,IMAGE+27+X1                 Z   7  0999  D 0A9 1S7         199
1315 11 96           A     +K4K-3,XL3                              Z   7  1006  A N22 099         199
1316 11 97           B     SCNDEX                                  Z   4  1013  B 970             200
1317 11 98   CKADJ    BCE   CKMIN,INPUT+18+X3,+                     Z   8  1017  B /34 0A8 +       200
1318 11 99   SCANB   EQU   *-1                    CHARACTER ADJUSTMENT Z     1023
1319 12 00           BCE                          OR AREA DEFINITION  Z   1  1025  B               200
1320 12 01           BCE                          LITERAL CODE        Z   1  1026  B               200
1321 12 02   DOMIN   BCE   ISADJ,INPUT+18+X3,-                      Z   8  1027  B ≠51 0A8 -       200
1322 12 03           BCE                                           Z   1  1035  B               200
1323 12 04           BCE                                           Z   1  1036  B               200
1324 12 05           BCE   ISADJ,INPUT+18+X3,=                     Z   8  1037  B ≠51 0A8 =       201
1325 12 06           BCE                                           Z   1  1045  B               201
1326 12 07           BCE                                           Z   1  1046  B               201
1327 12 08           B     DOADRS                                  Z   4  1047  B /50             201
1328 12 09   ISADJ    SBR   W3AREA                  PROCESS CHARACTER Z   4  1051  H H74             201
1329 12 10   PROADJ  S     +SCANB,W3AREA            ADJUSTMENT       Z   7  1055  S N25 H74         201
1330 12 11           MLC   XL2,HOLD3                                 Z   7  1062  M 094 H65         201
1331 12 12           MLNS  W3AREA,XL2                              Z   7  1069  D H74 094         202
1332 12 13           MLC   '00'                                     Z   4  1076  M N27             202
1333 12 14           MLC   INPUT+19+X3,W3AREA-4+X2                 Z   7  1080  M 0A9 HP0         202
1334 12 15           S     XL2+1,XL3+1                             Z   7  1087  S 095 100         202
1335 12 16           MZ    INPUT+20+X3,W3AREA-4+X2                 Z   7  1094  Y 0B0 HP0         202
1336 12 17           MN    INPUT+20+X3,W6AREA                      Z   7  1101  D 0B0 H77         202
1337 12 18           SW    IMAGE+24+X1                             Z   4  1108  , 1S4             203
1338 12 19           A     W3AREA-4+X2,IMAGE+26+X1 ADD CHAR ADJUSTMENT TO Z   7  1112  A HP0 1S6         203
1339 12 20           CW    IMAGE+24+X1              FIXED FORM       Z   4  1119  ) 1S4             203
1340 12 21           MLC   HOLD3,XL2                               Z   7  1123  M H65 094         203
1341 12 22           B     SCNDEX                                  Z   4  1130  B 970             203
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 SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1342 12 23   CKMIN   SBR   W3AREA                 ACCOUNT FOR POSSIBLE   Z   4  1134  H H74             203
1343 12 24           BCE   DOMIN,INPUT+18+X3,-     MULTI-CHAR ADJ OF     Z   8  1138  B ‡27 0A8 -        203
1344 12 25           B     PROADJ                   +1-2 TYPE            Z   4  1146  B ‡55              204
1345 12 26   DOADRS  S     FREEA,XL3               PROCESS ADDRESS       Z   7  1150  S M98 099          204
1346 12 27           C     XL3,+007                Q. OLLEGAL ADDRESS    Z   7  1157  C 099 N30          204
1347 12 28           BL    FIXER                    LENGTH               Z   5  1164  B S33 T            204
1348 12 29           A     FREEA,XL3                                     Z   7  1169  A M98 099          204
1349 12 30           MZ    BLANK,XL3                                     Z   7  1176  Y H59 099          204
1350 12 31           MCW   '‡',INPUT+20+X3                             Z   7  1183  M N31 0B0          205
1351 12 32           MLC   FREEA,XL3                                     Z   7  1190  M M98 099          205
1352 12 33           MRCM  INPUT+21+X3,IMAGE+17+X1 MOVE ADDRESS TO IMAGE Z   7  1197  P 0B1 1/7          205
1353 12 34           SBR   XL3                                           Z   4  1204  H 099              205
1354 12 35           MZ    ABBIT,XL3                                     Z   7  1208  Y 189 099          205
1355 12 36           MCW   BLANK,4000-1+X3                             Z   7  1215  M H59 II9          205
1356 12 37           MN    W6AREA,IMAGE+23+X1                            Z   7  1222  D H77 1S3          206
1357 12 38   FR2FXT  B     XXXX                    EXIT                  Z   4  1229  B 000              206
1358 12 39   FIXER   SW    FIXSW=1                                       Z   4  1233  , N32              206
1359 12 40   OPDER   MCW   '000',XL3               CODE STATEMENT        Z   7  1237  M M86 099          206
1360 12 41           MZ    ABIT,IMAGE+5             BAD BUT PROCESSABLE  Z   7  1244  Y 187 105          206
1361 12 42           BCE   *+8,XL1,0                                     Z   8  1251  B S66 089 0        206
1362 12 43           MCW   '003',XL3                                     Z   7  1259  M N35 099          207
1363 12 44           MCW   '===',IMAGE+70+X3                           Z   7  1266  M N38 1G0          207
1364 12 45           MZ    ABBIT,IMAGE+1+X3                            Z   7  1273  Y 189 1+1          207
1365 12 46           BW    FR2FXT,FIXSW                                Z   8  1280  V S29 N32 1        207
1366 12 47           B     LTER2                                       Z   4  1288  B U09              207
1367 12 48   *
1368 12 49   *SCAN FOR ' SIGN
1369 12 50   *
1370 12 51   SCANAT  SBR   SCNATX+3                                    Z   4  1292  H T85              207
1371 12 52           SW    INPUT+21+X2,SCANSW      SCAN IS EXECUTED FROM Z   7  1296  , 0K1 N15          208
1372 12 53           ZA    '510',XL3+1              RIGHT TO LEFT        Z   7  1303  + N41 100          208
1373 12 54   A1ALF   BCE   NDASCN,INPUT+21+X3,'                         Z   8  1310  B T29 0B1 '        208
1374 12 55           S     +10,XL3+1                                     Z   7  1318  S N43 100          208
1375 12 56           B     A1ALF                                         Z   4  1325  B T10              208
1376 12 57   NDASCN  C     XL2,XL3                 Q. NO ENDING ' SIGN   Z   7  1329  C 094 099          209
1377 12 58           BE    LTERR                                         Z   5  1336  B T94 S            209
1378 12 59           BCE   SETSW,INPUT+22+X3,,     Q. IS ENDING ' SIGN  Z   8  1341  B T86 0B2 ,        209
1379 12 60           C     INPUT+23+X3,BLANK2       FOLLOWED BY COMMA OR Z   7  1349  C 0B3 H60          209
1380 12 61           BU    LTERR                    TWO BLANKS           Z   5  1356  B T94 /            209
1381 12 62   SXL     S     XL2+1,XL3+1                                   Z   7  1361  S 095 100          209
1382 12 63           A     +2,XL3                                        Z   7  1368  A N44 099          210
1383 12 64           A     XL3,XL2                                       Z   7  1375  A 099 094          210
1384 12 65   SCNATX  B     XXXX                    EXIT                  Z   4  1382  B 000              210
1385 12 66   SETSW   CW    SCANSW                                        Z   4  1386  ) N15              210
1386 12 67           B     SXL                                           Z   4  1390  B T61              210
1387 12 68   *
1388 12 69   *IMPROPERLY CODED STATEMENT ROUTINE
1389 12 70   *
1390 12 71   LTERR   MLZS  ABIT,IMAGE+5            MARK STATEMENT        Z   7  1394  Y 187 105          210
1391 12 72           CW    FIXSW                    BAD BUT PROCESSABLE  Z   4  1401  ) N32              210
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 SEQ  PG  LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1392  12  73          B     OPDER                                   Z   4   1405  B S37             211
1393  12  74   LTER2  B     COMSCN                                  Z   4   1409  B 860             211
1394  12  75          MCW   ' ',INPUT+20+X3                        Z   7   1413  M N45 080         211
1395  12  76          A     +1,XL3                                  Z   7   1420  A N12 099         211
1396  12  77          B     SCNATX                                  Z   4   1427  B T82             211
1397  12  78   *
1398  12  79   *PLACE LITERALS ON MASTER TAPE
1399  12  80   *
1400  12  81   CALL   BW    CKLOR,LITSW=1          Q. ANY LITERALS   Z   8   1431  V U85 N46 1       211
1401  12  82          RT    SYSTAP,INPUT+1         READ IN PROCESS   Z   8   1439  M (U1 001 R       212
1402  12  83          RTW   SYSTAP,DOPROG           LITERALS OVERLAP  Z   8   1447  L (U1 N75 R       212
1403  12  84          NOP   0                                         Z   4   1455  N 000             212
1404  12  85          BER   TPERR                                     Z   5   1459  B 221 L           212
1405  12  86          B     OVLLIT                 GO TO ROUTINE     Z   4   1464  B N75             212
1406  12  87   RECALL RTW   SYSTAP,DOPROG          RECALL MAIN LINE  Z   8   1468  L (U1 N75 R       212
1407  12  88          NOP   0                       OVERLAP           Z   4   1476  N 000             213
1408  12  89          BER   TPERR                                     Z   5   1480  B 221 L           213
1409  12  90   CKLOR  BCE   BYPASS,IMAGE+75,       Q. LITERAL ORIGIN Z   8   1485  B 520 175         213
1410  12  91          BCE   NUREC,IMAGE+75,C       Q. EXECUTE        Z   8   1493  B 534 175 C       213
1411  12  92          RT    SYSTAP,INPUT+1         SKIP PAST OVERLAPS Z  8   1501  M (U1 001 R       213
1412  12  93          RT    SYSTAP,INPUT+1          AND READ IN END OF Z  8   1509  M (U1 001 R       214
1413  12  94          RTW   SYSTAP,EOJRT            JOB OVERLAP       Z   8   1517  L (U1 706 R       214
1414  12  95          NOP   0                                         Z   4   1525  N 000             214
1415  12  96          BER   TPERR                                     Z   5   1529  B 221 L           214
1416  12  97          B     EOJRT                                     Z   4   1534  B 706             214
1417  12  98   *
1418  12  99   *GENERATE ENTRY ADDRESS FOR LABELS
1419  13  00   *
1420  13  01   PROLBL SBR   XTLABL+3                                 Z   4   1538  H V77             214
1421  13  02          MLC   INPUT+11,IMAGE+13                       Z   7   1542  M 011 113         215
1422  13  03          MLC   IMAGE+13,W6AREA                         Z   7   1549  M 113 H77         215
1423  13  04          B     PROLAB                                  Z   4   1556  B W47             215
1424  13  05          MLC   W3AREA,IMAGE+56                        Z   7   1560  M H74 156         215
1425  13  06          A     +1,TOTLBL                               Z   7   1567  A N12 198         215
1426  13  07   XTLABL B     XXXX                                    Z   4   1574  B 000             215
1427  13  08   *
1428  13  09   *CONVERT FREE FORM NUMBER TO FIVE CHARACTERS
1429  13  10   *
1430  13  11   CVRT5  SBR   CVT5XT+3                                 Z   4   1578  H V93             216
1431  13  12          BCE   *+5,W5AREA,+                            Z   8   1582  B V94 H76 +       216
1432  13  13   CVT5XT B     XXXX                                    Z   4   1590  B 000             216
1433  13  14          ZA    W5AREA-1,W5AREA                         Z   7   1594  + H75 H76         216
1434  13  15          B     CVRT5+4                                 Z   4   1601  B V82             216
1435  13  16   *
1436  13  17   * CHECK FOR FINAL OPERAND
1437  13  18   *
1438  13  19   FNLOP  SBR   FNLXT+3                 Q. FINAL OPERAND  Z   4   1605  H W27             216
1439  13  20          BW    FNLXT,SCANSW            FOLLOWED BY TWO   Z   8   1609  V W24 N15 1       216
1440  13  21          MZ    ABIT,IMAGE+5            BLANKS            Z   7   1617  Y 187 105         217
1441  13  22   FNLXT  B     XXXX                                    Z   4   1624  B 000             217
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1442 13 23   *
1443 13 24   *CONVERT FLOATING A OPERAND ACTUAL ADDRESS TO FIVE CHARACTERS
1444 13 25   *
1445 13 26   CVTFLA SBR   FLAXT+3                                  Z   4  1628  H W46             217
1446 13 27          ZA    IMAGE+21,W5AREA                         Z   7  1632  + 121 H76         217
1447 13 28          B     CVRT5                  LINK TO SUBROUTINE Z   4  1639  B V78             217
1448 13 29   FLAXT  B     XXXX                                    Z   4  1643  B 000             217
1449 13 30   *
1450 13 31   *CONVERT SYMBOLS TO THREE CHARACTER ENTRY ADDRESS
1451 13 32   *
1452 13 33   PROLAB SBR   LBLXT+3                                 Z   4  1647  H Y10             217
1453 13 34          ZA    +2,HOLD2                                Z   7  1651  + N44 H64         218
1454 13 35          BCE   *+5,W6AREA,            ADD SUFFIX CHAR TO Z   8  1658  B W70 H77         218
1455 13 36          B     *+8                     LABELS FIVE CHARS Z   4  1666  B W77             218
1456 13 37          MCW   SFXHLD,W6AREA           OR LESS           Z   7  1670  M H86 H77         218
1457 13 38          ZA    W6AREA-2,HOLD4                          Z   7  1677  + H75 H71         218
1458 13 39          A     W6AREA,HOLD4           FOLD SYMBOL TO     Z   7  1684  A H77 H71         219
1459 13 40          A     W6AREA,HOLD4-2          FOUR CHARACTERS   Z   7  1691  A H77 H69         219
1460 13 41          MLZS  BLANK,HOLD4                             Z   7  1698  Y H59 H71         219
1461 13 42          ZA    FACTOR,HOLD7           MULTIPLY BY FACTOR Z   7  1705  + H48 H84         219
1462 13 43   MPYLP  MLNS  HOLD7,HOLD1                             Z   7  1712  D H84 H85         219
1463 13 44          ZA                                            Z   1  1719  +                 219
1464 13 45   MULT   BCE   NXTDGT,HOLD1,+                         Z   8  1720  B X46 H85 +       220
1465 13 46          A     HOLD4,HOLD7-2                           Z   7  1728  A H71 H82         220
1466 13 47          S     +1,HOLD1                                Z   7  1735  S N12 H85         220
1467 13 48          B     MULT                                    Z   4  1742  B X20             220
1468 13 49   NXTDGT S     +1,HOLD2                                Z   7  1746  S N12 H64         220
1469 13 50          BWZ   MPYLP,HOLD2,B                          Z   8  1753  V X12 H64 B       221
1470 13 51          S     W5AREA                                  Z   4  1761  S H76             221
1471 13 52          BAV   *+1                                     Z   5  1765  B X70 Z           221
1472 13 53   LOOP1  A     +96,HOLD7-5            FOLD FIVE CHARACTER Z   7  1770  A N48 H79         221
1473 13 54          BAV   LOOP1                   RESULT TO THREE   Z   5  1777  B X70 Z           221
1474 13 55          MLZS  HOLD7-6,W3AREA         CHARACTER TABLE ENTRY Z   7  1782  Y H78 H74         221
1475 13 56          MLC   HOLD7-3                ADDRESS           Z   4  1789  M H81             222
1476 13 57          MLNS  HOLD7-5,*+4                             Z   7  1793  D H79 Y03         222
1477 13 58          MLZS  ZONE,W3AREA-2                           Z   7  1800  Y 189 H72         222
1478 13 59   LBLXT  B     XXXX                                    Z   4  1807  B 000             222
1479 13 60   *
1480 13 61   *PROCESS DCW, DC, DSA CARDS
1481 13 62   *
1482 13 63   DCWCD  BCE   DCWALF,INPUT+21,'      Q. ALPHA CONSTANT  Z   8  1811  B K44 021 '       222
1483 13 64          BCE   ARDEF,INPUT+21,=       Q. AREA DEFINITION Z   8  1819  B L01 021 =       222
1484 13 65          BCE   CKDCW,INPUT+21,+       Q. NUMERIC LITERAL Z   8  1827  B Y58 021 +       223
1485 13 66          BCE   CKDCW,INPUT+21,-                          Z   8  1835  B Y58 021 -       223
1486 13 67          MLC   INPUT+72,INPUT+73      SHIFT RIGHT        Z   7  1843  M 072 073         223
1487 13 68          MCW   '+'                                       Z   4  1850  M N49             223
1488 13 69          SW    DCWSW                  SET NO ZONING SWITCH Z   4  1854  , H89             223
1489 13 70   CKDCW  B     COMSCN                 SCAN FOR BLANK     Z   4  1858  B 860             223
1490 13 71          BCE   ISDSA,INPUT+22,'      Q. ADCON OF LITERAL Z   8  1862  B Y90 022 '       224
1491 13 72          B     FNLOP                  CHECK LAST OPERAND Z   4  1870  B W05             224
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1492 13 73           BCE   ISDSA,IMAGE+75,J        Q. DSA STATEMENT  Z  8  1874  B Y90 175 J      224
1493 13 74           BWZ   ISDCW,INPUT+22,2        Q. DC, DCW STATEMENT Z 8  1882  V K71 022 2    224
1494 13 75    *
1495 13 76    *PROCESS DSA CARDS, SUBSET OF DCW
1496 13 77    *
1497 13 78    ISDSA  MLC    '011',XL1                               Z  7  1890  M N52 089          224
1498 13 79           MLNS   +2,IMAGE+75             CODE RECORD     Z  7  1897  D N44 175          225
1499 13 80           MZ     INPUT+21,IMAGE+27                       Z  7  1904  Y 021 127          225
1500 13 81           MCW    BLANK,INPUT+21                          Z  7  1911  M H59 021          225
1501 13 82           BWZ    *+5,IMAGE+75,K                          Z  8  1918  V Z30 175 K        225
1502 13 83           B      *+8                                     Z  4  1926  B Z37              225
1503 13 84           MZ     BLANK,IMAGE+75                          Z  7  1930  Y H59 175          226
1504 13 85           SW     DSASW2                SET DSA SWITCH    Z  4  1937  , H91              226
1505 13 86           MLC    '001',FREEA                             Z  7  1941  M N55 M98          226
1506 13 87           MCW    INPUT+34,IMAGE+53                       Z  7  1948  M 034 153          226
1507 13 88           BCE    DSADC,INPUT+22,'                        Z  8  1955  B L54 022 '        226
1508 13 89           BCE    DSADC,INPUT+22,+                        Z  8  1963  B L54 022 +        227
1509 13 90           BCE    DSADC,INPUT+22,-                        Z  8  1971  B L54 022 -        227
1510 13 91           B      FR2FIX          CONVERT FREE TO FIXED   Z  4  1979  B 952              227
1511 13 92           MZ     IMAGE+27,INPUT+21                       Z  7  1983  Y 127 021          227
1512 13 93    DSAX1  MZ     IMAGE+27,IMAGE+40                       Z  7  1990  Y 127 140          227
1513 13 94           MLC    '03',IMAGE+7            INSERT COUNT    Z  7  1997  M N57 107          228
1514 13 95           MLC    '03',XL2                                Z  7  2004  M N57 094          228
1515 13 96    CKAOP  BCE    DCWAST,INPUT+6,         Q. ANY LABEL    Z  8  2011  B -68 006         228
1516 13 97           BWZ    DCWAST,IMAGE+75,S       Q. LITERAL      Z  8  2019  V -68 175 S       228
1517 13 98           BWZ    *+5,INPUT+6,2           Q. ACTUAL ADDRESS Z 8  2027  V -39 006 2     228
1518 13 99           B      DCWAST                                  Z  4  2035  B -68             229
1519 14 00           MLC    INPUT+10,IMAGE+21       PROCESS ACTUAL  Z  7  2039  M 010 121          229
1520 14 01           B      CVTFLA                   ADDRESS        Z  4  2046  B W28              229
1521 14 02    DCWACT MLC    W5AREA,IMAGE+21         ADDRESS TO FIXED Z 7  2050  M H76 121          229
1522 14 03           MLC    W5AREA,IMAGE+61          FORM           Z  7  2057  M H76 161          229
1523 14 04           B      CKMACR                                  Z  4  2064  B -89             229
1524 14 05    DCWAST A      XL2,ORGCTR              BUMP ORIGIN COUNTER Z 7  2068  A 094 H58       230
1525 14 06    BMPCTR MCW    '*',IMAGE+17            SET TO DCW *    Z  7  2075  M N58 117          230
1526 14 07    DSETAD A      ORGCTR,IMAGE+61         ASSIGN ADDRESS  Z  7  2082  A H58 161          230
1527 14 08    CKMACR BCE    NUREC,IMAGE+75,P        Q. EQU STATEMENT Z 8  2089  B 534 175 P       230
1528 14 09           BCE    NUREC,IMAGE+75,X        Q. DS STATEMENT Z  8  2097  B 534 175 X       230
1529 14 10           BW     DCWXT,DSASW2            Q. DSA STATEMENT Z  8  2105  V J85 H91 1      231
1530 14 11           MLC    INPUT+51,IMAGE+53       MOVE CONSTANT TO Z  7  2113  M 051 153          231
1531 14 12           MLC                             FIXED FORM      Z  1  2120  M                  231
1532 14 13           MLC                                             Z  1  2121  M                  231
1533 14 14           MLC    XL2,IMAGE+7             COUNT TO FIXED FORM Z 7  2122  M 094 107       231
1534 14 15           C      XL2,'030'               Q. COUNT GREATER THAN Z 7  2129  C 094 N61     231
1535 14 16           BH     DCWXT                    30             Z  5  2136  B J85 U            231
1536 14 17           MN     '8',INPUT+75            WRITE FREE FORM RECORD Z 7  2141  D N62 075   232
1537 14 18           BWZ    *+8,IMAGE+75,B           ON TAPE        Z  8  2148  V J63 175 B       232
1538 14 19           MZ     IMAGE+75,INPUT+75                       Z  7  2156  Y 175 075          232
1539 14 20           MCW    HOLDC,XL3                               Z  7  2163  M M91 099          232
1540 14 21           MCW    INPUT+80,OUTPUT+80+X3                   Z  7  2170  M 080 I17          232
1541 14 22           SW     DCWSW2                                  Z  4  2177  , H92              233
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 SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1542 14 23           B     TPYET                             Z   4   2181  B 638             233
1543 14 24   DCWXT    CW    DSASW2,DCWSW2      RESET SWITCHES Z   7   2185  ) H91 H92         233
1544 14 25           BW    *+5,LITSW2                        Z   8   2192  V K04 H90 1       233
1545 14 26           B     NUREC                             Z   4   2200  B 534             233
1546 14 27           BCE   LITRTN,INPUT+21,'                 Z   8   2204  B P31 021 '       233
1547 14 28           BCE   LTGEN,INPUT+22,+   Q. ADCON OF LITERAL Z   8   2212  B M00 022 +       234
1548 14 29           BCE   LTGEN,INPUT+22,-                  Z   8   2220  B M00 022 -       234
1549 14 30           BCE   LTGEN,INPUT+22,'                 Z   8   2228  B M00 022 '       234
1550 14 31           B     LITRTN                            Z   4   2236  B P31             234
1551 14 32   PDCWLF  S     XL2+2                             Z   4   2240  S 096             234
1552 14 33   DCWALF  B     SCANAT             SCAN FOR ENDING ' SIGN Z   4   2244  B S92             234
1553 14 34           B     FNLOP              CHECK LAST OPERAND Z   4   2248  B W05             235
1554 14 35           BW    ACNRT,DSASW2       Q. ADCON OF LITERAL Z   8   2252  V L62 H91 1       235
1555 14 36           S     +30,XL2+1                         Z   7   2260  S N64 095         235
1556 14 37           B     CKAOP                             Z   4   2267  B -11             235
1557 14 38   ISDCW   S     +20,XL2+1                         Z   7   2271  S N66 095         235
1558 14 39           BW    NOZONE,DCWSW       Q. CONSTANT ZONED Z   8   2278  V K93 H89 1       235
1559 14 40           MLZS  INPUT+21,INPUT+21+X2 ZONE CONSTANT Z   7   2286  Y 021 0K1         236
1560 14 41   NOZONE  CW    DCWSW                             Z   4   2293  ) H89             236
1561 14 42           B     CKAOP                             Z   4   2297  B -11             236
1562 14 43   ARDEF   SW    INPUT+22           PROCESS AREA   Z   4   2301  , 022             236
1563 14 44           ZA    INPUT+24,W5AREA                   Z   7   2305  + 024 H76         236
1564 14 45           B     CVRT5                             Z   4   2312  B V78             236
1565 14 46           MLZS  ABBIT,IMAGE+4      CODE RECORD    Z   7   2316  Y 189 104         236
1566 14 47           MLNS  W5AREA,XL2                        Z   7   2323  D H76 094         237
1567 14 48           MLC                                     Z   1   2330  M                 237
1568 14 49           C     XL2,'053'          Q. ILLEGAL LENGTH Z   7   2331  C 094 N69         237
1569 14 50           BH    CKAOP                             Z   5   2338  B -11 U           237
1570 14 51           MZ    BBIT,IMAGE+5       MARK BAD STATEMENT Z   7   2343  Y 188 105         237
1571 14 52           B     CKAOP                             Z   4   2350  B -11             237
1572 14 53   DSADC   BCE   PDCWLF,INPUT+22,'   Q. ADCON OF ALPHA LIT Z   8   2354  B K40 022 '       237
1573 14 54   ACNRT   S     +10,XL3+1                         Z   7   2362  S N43 100         238
1574 14 55           MCW   XL3,W3AREA                        Z   7   2369  M 099 H74         238
1575 14 56           C     XL3,'006'          Q. LARGE LITERAL Z   7   2376  C 099 N72         238
1576 14 57           BL    DOBIG                             Z   5   2383  B A57 T           238
1577 14 58           BCE   XALF1,INPUT+22,'   Q. ALPHA LITERAL Z   8   2388  B +93 022 '       238
1578 14 59           B     XLIT1                             Z   4   2396  B B82             238
1579 14 60   LTGEN   B     PUT                PUT ADCON      Z   4   2400  B 610             239
1580 14 61           MCW   '/',IMAGE+75       SET UP LITERAL Z   7   2404  M N73 175         239
1581 14 62           MCW   LAREA+72,INPUT+72   TO BE PROCESSED Z   7   2411  M H31 072         239
1582 14 63           MCW                      NOTE. ADDRESS CONSTANT Z   1   2418  M                 239
1583 14 64           MCW                       LOGIC MAKES IT Z   1   2419  M                 239
1584 14 65           MCW                       RECURSIVE      Z   1   2420  M                 239
1585 14 66           MCW   LAREA+74,LAREA+73                 Z   7   2421  M H33 H32         239
1586 14 67           B     PROLBL                            Z   4   2428  B V38             240
1587 14 68           S     XL2+2                             Z   4   2432  S 096             240
1588 14 69           S                                       Z   1   2436  S                 240
1589 14 70           B     DCWCD                             Z   4   2437  B Y11             240
1590 14 71   *
1591 14 72   *CALL IN DA ROUTINE
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1592 14 73   *
1593 14 74   DARTN  RTW   SYSTAP,DOPROG      CALL DA ROUTINE      Z   8  2441  L (U1 N75 R        240
1594 14 75          NOP   0                                      Z   4  2449  N 000             240
1595 14 76          BER   TPERR                                  Z   5  2453  B 221 L           240
1596 14 77          B     DASTMT             GO TO DA ROUTINE     Z   4  2458  B N75            241
1597 14 78   FINDA  RTW   SYSTAP,DOPROG                          Z   8  2462  L (U1 N75 R        241
1598 14 79          NOP   0                                      Z   4  2470  N 000             241
1599 14 80          BER   TPERR                                  Z   5  2474  B 221 L           241
1600 14 81          B     CKCOM                                  Z   4  2479  B 706            241
1601 14 82          LTORG *                                      Z          2483
                    DCW   '0'                                    Z   1  2483            LIT   241
                          '000'                                  Z   3  2486            LIT   241
                          +80                                    Z   2  2488            LIT   242
       1243 HOLDC         =03                                    Z   3  2491            AREA  242
                          'RSWZ'                                 Z   4  2495            LIT   242
       1270 FREEA         =03                                    Z   3  2498            AREA  242
                          'I9I'                                  Z   3  2501            LIT   242
                          'I9G'                                  Z   3  2504            LIT   242
                          'I99'                                  Z   3  2507            LIT   242
       1279 EQUADD        =04                                    Z   4  2511            AREA  243
                          +1                                     Z   1  2512            LIT   243
                          '54'                                   Z   2  2514            LIT   243
       1298 SCANSW        =01                                    Z   1  2515            AREA  243
                          '04'                                   Z   2  2517            LIT   243
                          '+X'                                   Z   2  2519            LIT   243
1315                      +K4K-3                                 Z   3  2522  I97       ADCON 243
1329                      +SCANB                                 Z   3  2525  #23       ADCON 244
                          '00'                                   Z   2  2527            LIT   244
                          +007                                   Z   3  2530            LIT   244
                          '#'                                    Z   1  2531            LIT   244
1358 FIXSW                =01                                    Z   1  2532            AREA  244
                          '003'                                  Z   3  2535            LIT   244
                          '==='                                  Z   3  2538            LIT   244
                          '510'                                  Z   3  2541            LIT   245
                          +10                                    Z   2  2543            LIT   245
                          +2                                     Z   1  2544            LIT   245
                          ''                                     Z   1  2545            LIT   245
1400 LITSW                =01                                    Z   1  2546            AREA  245
                          +96                                    Z   2  2548            LIT   245
                          '+'                                    Z   1  2549            LIT   245
                          '011'                                  Z   3  2552            LIT   246
                          '001'                                  Z   3  2555            LIT   246
                          '03'                                   Z   2  2557            LIT   246
                          '*'                                    Z   1  2558            LIT   246
                          '030'                                  Z   3  2561            LIT   246
                          '8'                                    Z   1  2562            LIT   246
                          +30                                    Z   2  2564            LIT   246
                          +20                                    Z   2  2566            LIT   247
                          '053'                                  Z   3  2569            LIT   247
                          '006'                                  Z   3  2572            LIT   247
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
                           '/'                                     Z  1  2573              LIT   247
1602 14 83   GRPMK5  DCW   ' '                  SYSTEM GROUP MARK  Z  1  2574                    247
1603 14 84           EX    DOZERO                                  Z        B 000               248
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 SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1604 14 85           JOB   1401 AUTOCODER-PASS 4 PROCESS JOB/CTL  -VERSION 3
1605 14 86    *
1606 14 87    *PROCESS CONTROL CARD
1607 14 88    *
1608 14 89    DOPROG ORG   *                                          Z      2575   2575
1609 14 90    START  CS    INPUT+84                                   Z   4  2575  / 084              251
1610 14 91           CS    3999                                       Z   4  2579  / I99              251
1611 14 92           SW    INPUT+21,INPUT+81          SET WORD MARKS IN Z   7  2583  , 021 081         251
1612 14 93           SW    IMAGE+1,IMAGE+6             FIXED FORM IMAGE AREA Z 7  2590  , 101 106     251
1613 14 94           SW    IMAGE+8,IMAGE+14                           Z   7  2597  , 108 114         251
1614 14 95           SW    IMAGE+17,IMAGE+28                          Z   7  2604  , 117 128         251
1615 14 96           SW    IMAGE+39,IMAGE+57                          Z   7  2611  , 139 157         252
1616 14 97           SW    IMAGE+62,IMAGE+67                          Z   7  2618  , 162 167         252
1617 14 98           SW    IMAGE+23                                   Z   4  2625  , 123             252
1618 14 99           SW    GRPMK1,GRPMK8              INITIALIZE GROUP MARKS Z 7  2629  , 085 H99     252
1619 15 00           SW    GRPMK3,GRPMK4                              Z   7  2636  , H44 185         252
1620 15 01           CW    INITSW                                     Z   4  2643  ) H87             252
1621 15 02           RWD   INTAP                                      Z   5  2647  U (U4 R            253
1622 15 03           RWD   OUTAP                                     Z   5  2652  U (U5 R            253
1623 15 04           RWD   LITAPE                                     Z   5  2657  U (U6 R            253
1624 15 05           MLC   '000',HOLDC                               Z   7  2662  M R16 M91          253
1625 15 06           B     GET                        GET JOB CARD    Z   4  2669  B 538             253
1626 15 07           MCW   INPUT+80,IMAGE+21          PROCESS JOB CARD Z  7  2673  M 080 121         253
1627 15 08           MCW   'I',IMAGE+75               IDENTIFICATION  Z   7  2680  M R17 175         254
1628 15 09           SW    3998                                       Z   4  2687  , I98             254
1629 15 10           B     GET                        GET SECOND RECORD Z 4  2691  B 538             254
1630 15 11           BCE   NOCTL,INPUT+6,*            Q. COMMENTS CARD Z  8  2695  B Q71 006 *      254
1631 15 12           C     INPUT+18,'CTL'             Q. CONTROL CARD  Z  7  2703  C 018 R20         254
1632 15 13           BU    NOCTL                                      Z   5  2710  B Q71 /           254
1633 15 14           MLNS  INPUT+21,CTL3+7            CHECK PROCESSOR SIZE Z 7  2715  D 021 P29     255
1634 15 15    CTL3   BCE   CTL2,CKPRC,                 FOR VALID CODE  Z   8  2722  B P37 R13         255
1635 15 16           BCE                                              Z   1  2730  B                 255
1636 15 17           BCE                                              Z   1  2731  B                 255
1637 15 18           BCE                                              Z   1  2732  B                 255
1638 15 19           B     NOCTL                                      Z   4  2733  B Q71              255
1639 15 20    CTL2   MLC   INPUT+21,PROCOR             INITIALIZE AREAS Z  7  2737  M 021 194         255
1640 15 21           ZA    INPUT+21,XL1                               Z   7  2744  + 021 089         256
1641 15 22           S     +30,XL1+1                   PROCESSOR MACHINE Z 7  2751  S R22 090       256
1642 15 23           A     XL1                         SIZE           Z   4  2758  A 089             256
1643 15 24           A     XL1                                        Z   4  2762  A 089             256
1644 15 25           MLC   FCTBL+X1,FACTOR                           Z   7  2766  M QZ7 H48          256
1645 15 26           MLC   '0',FACTOR-3                             Z   7  2773  M R23 H45          256
1646 15 27           MLC   FCTBL-3+X1,CKTAP+7                       Z   7  2780  M QZ4 652          257
1647 15 28           BCE   IS16K,INPUT+21,6           Q. 16K PROCESSOR Z  8  2787  B Q52 021 6       257
1648 15 29           BCE   IS16K,INPUT+21,5           Q. 16K PROCESSOR Z  8  2795  B Q52 021 5       257
1649 15 30           BCE   IS8K,INPUT+21,4            Q. 8K  PROCESSOR Z  8  2803  B Q33 021 4       257
1650 15 31           MLC   '3',PROCOR                                 Z   7  2811  M R24 194          257
1651 15 32    *
1652 15 33    * INITIALIZE OUTPUT AREA AND SET UP BLOCKING SIZE
1653 15 34    *
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1654 15 35   IS4K    LCA   GRPMK8,3998          SET GROUP MARK AT END Z  7  2818  L H99 I98         258
1655 15 36           B     PUT                                      Z  4  2825  B 610              258
1656 15 37           B     LDOPTB                OF OUTPUT AREA     Z  4  2829  B 489              258
1657 15 38   IS8K    LCA   GRPMK8,4318                             Z  7  2833  L H99 31Y          258
1658 15 39           MCW   '('                                      Z  4  2840  M R25              258
1659 15 40           MCW   4317                                     Z  4  2844  M 31X              258
1660 15 41           B     CWI98                                    Z  4  2848  B 469              258
1661 15 42   IS16K   LCA   GRPMK8,4718                             Z  7  2852  L H99 71Y          259
1662 15 43           MCW   '('                                      Z  4  2859  M R25              259
1663 15 44           MCW   4717                                     Z  4  2863  M 71X              259
1664 15 45           B     CWI98                                    Z  4  2867  B 469              259
1665 15 46   NOCTL   MLC   FCTBL,FACTOR          PROCESS WHEN NO    Z  7  2871  M Q97 H48          259
1666 15 47           MLC   '3',PROCOR             CONTROL CARD      Z  7  2878  M R24 194          259
1667 15 48           BSP   INTAP                                    Z  5  2885  U (U4 B            259
1668 15 49           B     IS4K                                     Z  4  2890  B Q18              260
1669 15 50   FCTBL   DCW   0015                                     Z  4  2897                    260
1670 15 51           DCW   3051                                     Z  4  2901                    260
1671 15 52           DCW   7087                                     Z  4  2905                    260
1672 15 53           DCW   7127                                     Z  4  2909                    260
1673 15 54   CKPRO   DCW   3456                                     Z  4  2913                    260
1674 15 55           LTORG *                                        Z        2914
                     DCW   '000'                                    Z  3  2916          LIT       260
                           'I'                                      Z  1  2917          LIT       261
                           'CTL'                                    Z  3  2920          LIT       261
                           +30                                      Z  2  2922          LIT       261
                           '0'                                      Z  1  2923          LIT       261
                           '3'                                      Z  1  2924          LIT       261
                           '('                                      Z  1  2925          LIT       261
1675 15 56   *
1676 15 57   *M A I N   L I N E   C O N S T A N T S   A N D   W O R K   A R E A S
1677 15 58   *
1678 15 59   *LITERAL HOLD AREA
1679 15 60   *
1680 15 61           ORG   SAVE                                     Z              3760
1681 15 62   LAREA   EQU   *                                        Z     3759
1682 15 63           DCW   +00000                                   Z  5  3764                    262
1683 15 64           DCW   =10                                      Z 10  3774                    262
1684 15 65           DCW   'DCW  '                                  Z  5  3779                    262
1685 15 66           DCW   =1                                       Z  1  3780                    262
1686 15 67           DS    53                                       Z     3833
1687 15 68           DCW   '/'                                      Z  1  3834                    263
1688 15 69           DS    9                                        Z     3843
1689 15 70   GRPMK3  DC    ' '                                      Z  1  3844                    264
1690 15 71   HLDLIT  EQU   LAREA+1                                  Z     3760
1691 15 72   *
1692 15 73   *CONSTANTS AND WORK AREAS
1693 15 74   *
1694 15 75   FACTOR  DCW   '0000'          LABEL CONVERSION FACTR   Z  4  3848                    264
1695 15 76   BIGCTR  DCW   '00000'         BIG LITERAL LABEL CNTR   Z  5  3853                    264
1696 15 77   ORGCTR  DCW   '00332'         ORIGIN COUNTER           Z  5  3858                    264
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SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION TYPE	CARD
1697	15	78	BLANK4	DCW	=4	BLANKS	Z	4	3862		264
1698	15	79	B2CNTR	DCW	=5	WORK AREA	Z	5	3867		265
1699	15	80	HOLD4	DCW	=4	WORK AREA	Z	4	3871		265
1700	15	81	W6AREA	DCW	=6	WORK AREA	Z	6	3877		265
1701	15	82	HOLD7	DCW	=7	USED FOR LABEL	Z	7	3884		265
1702	15	83	HOLD1	DCW	+0	CONVERSION ONLY	Z	1	3885		265
1703	15	84	SFXHLD	DCW	0	SUFFIX CHARACTER	Z	1	3886		265
1704	15	85	INITSW	DCW	0	DA SWITCH	Z	1	3887		265
1705	15	86	MARKSW	DC	0	DA SWITCH	Z	1	3888		266
1706	15	87	DCWSW	DC	0	DCW SWITCH	Z	1	3889		266
1707	15	88	LITSW2	DC	0	LITERAL SWITCH	Z	1	3890		266
1708	15	89	DSASW2	DC	0	DSA SWITCH	Z	1	3891		266
1709	15	90	DCWSW2	DC	0	DCW SWITCH	Z	1	3892		266
1710	15	91	GRPMK8	EQU	3899		Z		3899		
1711	15	92	3899	DCW	' '	SYSTEM GROUP MARK	Z	1	3899		267
1712	15	93		EX	DOZERO		Z			B 000	268

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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1713 15 94           JOB   1401 AUTOCODER-PASS 4 MAIN LINE OVERLAY -VERSION 3
1714 15 95    *
1715 15 96    *PROCESS INSTRUCTION STATEMENTS
1716 15 97    *
1717 15 98           ORG   DOPROG                                   Z          2575                 271
1718 15 99    INSTR  MCW   EQUADD,IMAGE+67          GET ACTUAL OP    Z   7  2575  M N11 167          271
1719 16 00           CW    LENSW=1                 RESET SWITCH     Z   4  2582  ) G34              271
1720 16 01           MLC   '01',IMAGE+7            SET COUNT TO ONE Z   7  2586  M G36 107          271
1721 16 02           BW    *+5,EQUADD              Q. REGULAR OP CODE Z 8  2593  V 005 N11 1        271
1722 16 03           B     AUGMNT                                   Z   4  2601  B R06              271
1723 16 04    DOCNT  BCE   DONE,INPUT+21+X2,       Q. IS THERE OPERAND Z 8 2605  B P31 OK1         271
1724 16 05           BCE   XISALF,INPUT+21+X2,'    Q. ALPHAMERIC LITERAL Z 8 2613 B +77 OK1 '     272
1725 16 06           LCA   BLANK2+1,INPUT+20+X2    WIPE OUT PREV OPERAND Z 7 2621  L H61 OK0        272
1726 16 07           B     COMSCN                  SCAN FOR COMMA, BLANK Z 4 2628  B 860            272
1727 16 08           MLC   XL3,W3AREA                                 Z   7  2632  M 099 H74          272
1728 16 09           MLC   FREEA,XL3                                  Z   7  2639  M M98 099          272
1729 16 10           BCE   XISLIT,INPUT+21+X3,+   Q. NUMERIC LITERAL OR Z 8 2646 B B51 OB1 +     273
1730 16 11           BCE   XISLIT,INPUT+21+X3,-    ADDRESS CONSTANT Z 8 2654  B B51 OB1 -          273
1731 16 12           B     FR2FIX                  CONVERT FREE TO FIXED Z 4 2662 B 952            273
1732 16 13           BCE   SMLTYP,IMAGE+23+X1,=    Q. AREA DEF LITERAL Z 8 2666 B +40 1S3 =       273
1733 16 14    CKDONE A     +3,IMAGE+7              ADD THREE TO COUNT Z 7  2674  A G37 107          273
1734 16 15           BW    FREMOD,LENSW            Q. FIVE CHAR INST Z 8  2681  V P39 G34 1        274
1735 16 16           C     XL1,'010'               Q. B OPERAND JUST Z 7  2689  C 089 G40          274
1736 16 17           BL    DONE                     PROCESSED        Z   5  2696  B P31 T            274
1737 16 18           MLC   '011',XL1                                 Z   7  2701  M G43 089          274
1738 16 19           BW    *+5,SCANSW              Q. TWO BLABKS AFTER OP Z 8 2708 V P20 N15 1     274
1739 16 20           B     ELMBLK                  ELIMINATE BLANKS Z 4 2716  B Q83                274
1740 16 21    INTXL1 MCW   XL2,FREEA                                  Z   7  2720  M 094 M98          275
1741 16 22           B     DOCNT                                    Z   4  2727  B 005              275
1742 16 23    DONE   BW    CKMOD1,SCANSW           Q. D MODIFIER IN Z 8 2731  V Q03 N15 1          275
1743 16 24    FREMOD MLC   INPUT+21+X2,IMAGE+39     OPERAND FIELD   Z   7  2739  M OK1 139          275
1744 16 25           BCE   *+5,IMAGE+39,           Q. D MODIFIER OFFSET Z 8 2746 B P58 139         275
1745 16 26           B     C1                       ONE POSITION    Z   4  2754  B P80              275
1746 16 27           BCE   C1,INPUT+22+X2,         IF BOTH POSITIONS Z 8 2758 B P80 OK2           276
1747 16 28           MCW   INPUT+22+X2,IMAGE+39     BLANK ASSUME FIRST Z 7 2766 M OK2 139          276
1748 16 29           A     +1,XL2                   BLANK SIGNIFICANT Z 7 2773 A G44 094           276
1749 16 30    C1     C     INPUT+23+X2,BLANK2      Q. D MODIFIER    Z   7  2780  C OK3 H60          276
1750 16 31           BE    ISMOD                    FOLLOWED BY TWO Z   5  2787  B Q11 S            276
1751 16 32           MZ    ABIT,IMAGE+5             BLANKS          Z   7  2792  Y 187 105          277
1752 16 33           B     ISMOD                                    Z   4  2799  B Q11              277
1753 16 34    CKMOD1 BCE   DOIADD,IMAGE+39,        Q. D CHARACTER   Z   8  2803  B Q32 139          277
1754 16 35    ISMOD  A     +1,IMAGE+7              PROCESS D CHARACTER Z 7 2811 A G44 107         277
1755 16 36           MLC   IMAGE+7,XL2                                Z   7  2818  M 107 094          277
1756 16 37           MLC   IMAGE+39,IMAGE+66+X2                      Z   7  2825  M 139 106          278
1757 16 38    DOIADD MLC   ORGCTR,IMAGE+61         ASSIGN ADDRESS AND Z 7 2832 M H58 161          278
1758 16 39           A     +1,IMAGE+61              BUMP UP COUNTER Z   7  2839  A G44 161          278
1759 16 40           A     IMAGE+7,ORGCTR                           Z   7  2846  A 107 H58          278
1760 16 41           MLC   BLANK,IMAGE+75          CODE RECORD      Z   7  2853  M H59 175          278
1761 16 42           B     NUREC                                    Z   4  2860  B 534              278
1762 16 43    LOOPBL A     +1,XL2                  WEED OUT BLANKS  Z   7  2864  A G44 094          279
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1763 16 44           C     XL2,'51'                 BETWEEN OPERANDS Z  7  2871  C 094 G46        279
1764 16 45           BL    ERRBLK                                   Z  5  2878  B Q95 T          279
1765 16 46   ELMBLK  BCE   LOOPBL,INPUT+21+X2,                      Z  8  2883  B Q64 OK1        279
1766 16 47           B     INTXL1                                   Z  4  2891  B P20           279
1767 16 48   ERRBLK  MZ    ABIT,IMAGE+5                             Z  7  2895  Y 187 105        279
1768 16 49           B     CKDONE                                   Z  4  2902  B 074           280
1769 16 50   *
1770 16 51   *PROCESS UNIQUE MNEMONICS
1771 16 52   *
1772 16 53   AUGMNT  MCW   EQUADD-1,IMAGE+39        D MOD TO IMAGE AREA Z  7  2906  M N10 139        280
1773 16 54           BCE   ISFIVE,EQUADD-1,         Q. BIN TYPE         Z  8  2913  B +32 N10        280
1774 16 55   CKREG   BW    DOCNT,EQUADD-1           Q. TYPICAL UNIQUE MNEM Z 8  2921  V 005 N10 1     280
1775 16 56           BW    TAPAUG,EQUADD-2          Q. TAPE TYPE        Z  8  2929  V R52 N09 1     280
1776 16 57           MCW   EQUADD-2,IMAGE+70        ERGO RAMAC TYPE     Z  7  2937  M N09 170        281
1777 16 58           MLC   '('                                         Z  4  2944  M G47           281
1778 16 59           B     OPDONE                                     Z  4  2948  B +21           281
1779 16 60   TAPAUG  C     INPUT+21,'0'             PROCESS TAPE TYPE OF Z 7  2952  C 021 G48        281
1780 16 61           BH    DOCNT                     UNIQUE MNEMONICS   Z  5  2959  B 005 U          281
1781 16 62           BCE   MSCSW,INPUT+22,,         CHECK FOR PROPERLY  Z  8  2964  B R95 022 ,      281
1782 16 63           C     INPUT+23,BLANK2          CODED A OPERAND     Z  7  2972  C 023 H60        282
1783 16 64           BE    GETPOP                                     Z  5  2979  B R99 S          282
1784 16 65           MCW   '===',IMAGE+70                            Z  7  2984  M G51 170        282
1785 16 66           B     OPDONE                                     Z  4  2991  B +21           282
1786 16 665  MSCSW   CW    SCANSW                                     Z  4  2995  ) N15           282
1787 16 67   GETPOP  MN    INPUT+21,IMAGE+70                          Z  7  2999  D 021 170        282
1788 16 68           MCW   EQUADD-2                                  Z  4  3006  M N09           282
1789 16 69           MLC   '('                                        Z  4  3010  M G47           283
1790 16 70           MLC   '002',XL2                                  Z  7  3014  M G54 094        283
1791 16 72   OPDONE  MLZS  ABBIT,IMAGE+1            MARK A OPERAND DONE Z  7  3021  Y 189 101      283
1792 16 73           B     CKDONE                                     Z  4  3028  B 074           283
1793 16 74   ISFIVE  SW    LENSW                    SET SWITCH FOR FIVE Z  4  3032  , G34           283
1794 16 75           B     CKREG                     CHAR INSTRUCTION   Z  4  3036  B R21           283
1795 16 76   *
1796 16 77   *PROCESS AREA DEFINITION LITERAL
1797 16 78   *
1798 16 79   SMLTYP  SW    IMAGE+24+X1              MOVE LENGTH TO      Z  4  3040  , 1S4           283
1799 16 80           MLC   IMAGE+26+X1,LAREA+24      LITERAL HOLD AREA  Z  7  3044  M 1S6 G83        284
1800 16 81           MLC   '='                                        Z  4  3051  M G55           284
1801 16 82           CW    IMAGE+24+X1              REMOVE LENGTH FROM  Z  4  3055  ) 1S4           284
1802 16 83           MCW   BLANK4,IMAGE+26+X1        CHAR ADJ PORTION   Z  7  3059  M H62 1S6      284
1803 16 84           MCW   INPUT+84,LAREA+4         OF OPERAND AND SAVE Z  7  3066  M 084 G63      284
1804 16 85           B     WRTLIT                    ALTER NUMBER       Z  4  3073  B A89           284
1805 16 86   *
1806 16 87   *PROCESS ALPHAMERIC LITERALS
1807 16 88   *
1808 16 89   XISALF  B     SCANAT                   SCAN FOR ' SIGN     Z  4  3077  B S92           284
1809 16 90           C     XL3,'07'                 Q. BIG LITERAL      Z  7  3081  C 099 G57        285
1810 16 91           BL    DOBIG                                      Z  5  3088  B A57 T          285
1811 16 92   XALF1   A     XL3,XL1                                    Z  7  3093  A 099 089        285
1812 16 93           MCW   INPUT+19+X2,IMAGE+15+X1   GENERATE UNIQUE LABEL Z 7  3100  M 0J9 1/5      285
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1813 16 94          BCE   GM1,FREE+18+X2,          AND STRIP ZONING  Z  8  3107  B A43 0J8        285
1814 16 95          BCE                            OFF GROUP MARKS IN  Z  1  3115  B               285
1815 16 96          BCE                            LITERAL TO ELIMINATE Z 1  3116  B               285
1816 16 97          BCE                            CONFLICT          Z  1  3117  B               286
1817 16 98  ADD     S     XL3+1,XL1+1              WITH NOISE RECORD  Z  7  3118  S 100 090        286
1818 16 99          MZ    EXOVFL-1,IMAGE+17+X1     ROUTINE           Z  7  3125  Y 190 1/7        286
1819 17 00  SETEX   MCW   EXNUMB-1,IMAGE+22+X1   GIVE LITERAL SECTION Z  7  3132  M 192 1S2        286
1820 17 01          B     PROLIT                   CODE              Z  4  3139  B A82            286
1821 17 02  GM1     MZ    BLANK4,IMAGE+14+X1                         Z  7  3143  Y H62 1/4        286
1822 17 03          MZ                                               Z  1  3150  Y               286
1823 17 04          MZ                                               Z  1  3151  Y               287
1824 17 05          MZ                                               Z  1  3152  Y               287
1825 17 06          B     ADD                                        Z  4  3153  B A18            287
1826 17 07  *
1827 17 08  *PROCESS BIG LITERALS
1828 17 09  *
1829 17 10  DOBIG  MLC   BIGCTR,IMAGE+22+X1       GENERATE BIG LITERAL Z  7  3157  M H53 1S2        287
1830 17 11          MLC   '$'                       LABEL             Z  4  3164  M G58            287
1831 17 12          A     +1,BIGCTR                                  Z  7  3168  A G44 H53        287
1832 17 13          MCW   INPUT+84,LAREA+4          SAVE ALTER NUMBER Z  7  3175  M 084 G63        287
1833 17 14  *
1834 17 15  *PLACE LITERALS IN HOLD AREA AND WRITE OUT ON LITERAL TAPE
1835 17 16  *
1836 17 17  PROLIT MLC   INPUT+19+X2,LAREA+19+X3   LITERAL TO HOLD AREA Z 7  3182  M 0J9 GG8        288
1837 17 18  WRTLIT MLC   IMAGE+22+X1,LAREA+11      LITERAL LABEL TO AREA Z 7  3189  M 1S2 G70        288
1838 17 19          BW    DSAX1,LITSW2                               Z  8  3196  V Z90 H90 1      288
1839 17 20          WT    LITAPE,HLDLIT            WRITE OUT LITERAL Z  8  3204  M (U6 G60 W      288
1840 17 21          NOP   0                                          Z  4  3212  N 000            288
1841 17 22          BER   TPERR                                      Z  5  3216  B 221 L          288
1842 17 23          MCW   BLANK4,LAREA+4           CLEAR HOLD AREA   Z  7  3221  M H62 G63        289
1843 17 24          MLC   LAREA+74,LAREA+73                          Z  7  3228  M H33 H32        289
1844 17 25          CW    LITSW                    SET SW TO INDICATE AT Z 4  3235  ) N46           289
1845 17 26          BW    DSAX1,DSASW2             Q. RECURSIVE DCW  Z  8  3239  V Z90 H91 1      289
1846 17 27          B     CKDONE                   LEAST ONE LIT EXISTS Z 4  3247  B 074           289
1847 17 28  *
1848 17 29  *PROCESS NUMERIC LITERALS
1849 17 30  *
1850 17 31  XISLIT C     INPUT+22+X3,'0'          Q. ADDRESS CONSTANT Z  7  3251  C 0B2 G48        289
1851 17 32          MLC   W3AREA,XL3                                 Z  7  3258  M H74 099        290
1852 17 33          BH    DOBIG                                      Z  5  3265  B A57 U          290
1853 17 34          C     XL3,'07'                 Q. BIG LITERAL    Z  7  3270  C 099 G57        290
1854 17 35          BL    DOBIG                                      Z  5  3277  B A57 T          290
1855 17 36  XLIT1   A     XL1,XL3                  PROCESS SMALL NUMERIC Z 7  3282  A 089 099        290
1856 17 37          MLC   INPUT+19+X2,IMAGE+14+X3  LITERALS         Z  7  3289  M 0J9 1A4        290
1857 17 38          MZ    EXOVFL-1,IMAGE+21+X1     GENERATE UNIQUE LABEL Z 7  3296  Y 190 1S1        291
1858 17 39          MLC   FREEA,XL3                 FOR LITERAL       Z  7  3303  M M98 099        291
1859 17 40          MLZS  INPUT+21+X3,IMAGE+18+X1                    Z  7  3310  Y 0B1 1/8        291
1860 17 41          MLC   W3AREA,XL3                                 Z  7  3317  M H74 099        291
1861 17 42          B     SETEX                                      Z  4  3324  B A32            291
1862 17 43  *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1863 17 44   *GENERATE LABEL ENTRY ADDRESS FOR SYMBOLIC OPERANDS
1864 17 45   *
1865 17 46   PROPND SBR   BOPXT+3                                 Z   4  3328  H C60            291
1866 17 47         BCE   BOPXT,IMAGE+17                          Z   7  3332  B C57 117       292
1867 17 48         MCW   IMAGE+22,W6AREA                         Z   7  3339  M 122 H77       292
1868 17 49         B     PROLAB                LINK TO SUBROUTINE Z   4  3346  B W47           292
1869 17 50         MLC   W3AREA,IMAGE+70                         Z   7  3350  M H74 170       292
1870 17 51   BOPXT B     XXXX                                    Z   4  3357  B 000           292
1871 17 52   *
1872 17 53   *DETERMINE TYPE OF CONTROL OP
1873 17 54   *
1874 17 55   CTRLOP MCW   EQUADD-1,IMAGE+75     CODE RECORD       Z   7  3361  M N10 175       292
1875 17 56         S     XL3+1                                   Z   4  3368  S 100           293
1876 17 57         MN    EQUADD-1,XL3          BRANCH TO APPROPRIATE Z 7  3372  D N10 099   293
1877 17 58         A     XL3                    ROUTINE          Z   4  3379  A 099           293
1878 17 59         A     XL3                                    Z   4  3383  A 099           293
1879 17 60         B     *+1+X3                                 Z   4  3387  B C11           293
1880 17 61         B     DARTN                                  Z   4  3391  B M41           293
1881 17 62         B     DCWCD                                  Z   4  3395  B Y11           293
1882 17 63         B     ERRHLT                                 Z   4  3399  B D63           294
1883 17 64         B     EXEND                                  Z   4  3403  B G10           294
1884 17 65         B     DOSFX                                  Z   4  3407  B F92           294
1885 17 66         B     ERRHLT                                 Z   4  3411  B D63           294
1886 17 67         B     ORGSTM                                 Z   4  3415  B D74           294
1887 17 68         B     DSSTMT                                 Z   4  3419  B F00           294
1888 17 69         B     INSPC                                  Z   4  3423  B D38           294
1889 17 70         MCW   INPUT+80,IMAGE+21                      Z   7  3427  M 080 121       295
1890 17 71         B     NUREC                                  Z   4  3434  B 534           295
1891 17 72   INSPC MCW   EQUADD-2,IMAGE+67     PROCESS CC, SS    Z   7  3438  M N09 167       295
1892 17 73         MCW   BLANK2,IMAGE+75        TYPE OF         Z   7  3445  M H60 175       295
1893 17 74         MLC   '01',IMAGE+7           INSTRUCTIONS    Z   7  3452  M G36 107       295
1894 17 75         B     FREMOD                                 Z   4  3459  B P39           295
1895 17 76   ERRHLT H    0,0402                SYSTEM ERROR HALT Z   7  3463  . 000 402       296
1896 17 77         B     ERRHLT                 SHOULD NEVER OCCUR Z 4  3470  B D63           296
1897 17 78   *
1898 17 79   *PROCESS LITERAL ORIGIN AND ORIGIN CARDS
1899 17 80   *
1900 17 81   ORGSTM B     COMSCN                SCAN FOR BLANK    Z   4  3474  B 860           296
1901 17 82         B     FNLOP                 CHECK LAST OPERAND Z  4  3478  B W05           296
1902 17 83         B     FR2FIX                FREE TO FIXED FORM Z  4  3482  B 952           296
1903 17 84         BCE   SUBORG,IMAGE+24,X     Q. ADJUSTMENT +XOD Z  8  3486  B E63 124 X     296
1904 17 85         BCE   ORGPRO,IMAGE+17,*     Q. ASTERISK OPERAND Z 8  3494  B E89 117 *     296
1905 17 86         ZS    +1,ORGCTR             SET COUNTER TO -1 Z   7  3502  - G44 H58       297
1906 17 87         BCE   ORGADJ,IMAGE+17,      Q. BLANK OPERAND  Z   8  3509  B E33 117       297
1907 17 88         BWZ   ORGCVT,IMAGE+17,2     Q. ACTUAL ORIGIN  Z   8  3517  V E78 117 2     297
1908 17 89         S     XL2+1                 PROCESS A OPERAND OF Z 4  3525  S 095           297
1909 17 90         B     PROPND                 SYMBOLIC ORIGIN  Z   4  3529  B C28           297
1910 17 91   ORGADJ A     IMAGE+26,ORGCTR       ADD CHAR ADJUSTMENT Z 7  3533  A 126 H58       297
1911 17 92   TYPORG MLC   ORGCTR,IMAGE+61       SAVE ORIGIN VALUE Z   7  3540  M H58 161       298
1912 17 93         BCE   NUREC,INPUT+16,O       Q. ORIGIN CARD    Z   8  3547  B 534 016 O     298
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 SEQ  PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1913  17  94          B     PUT                 PUT LTORG RECORD    Z  4  3555  B 610             298
1914  17  95          B     CALL                GO TO LITERAL ROUTINE Z 4  3559  B U31             298
1915  17  96  SUBORG ZS    +1,ORGCTR           SET COUNTER TO -1   Z  7  3563  - G44 H58         298
1916  17  97          B     PROPND              PROCESS A OPERAND   Z  4  3570  B C28             298
1917  17  98          B     TYPORG                                  Z  4  3574  B E40             298
1918  17  99  ORGCVT  B     CVTFLA              RESET COUNTER TO ACTL Z 4  3578  B W28             299
1919  18  00          A     W5AREA,ORGCTR        ADDRESS LESS ONE   Z  7  3582  A H76 H58         299
1920  18  01  ORGPRO  MZ    ABBIT,IMAGE+1       MARK A OPERAND      Z  7  3589  Y 189 101         299
1921  18  02          B     ORGADJ               PROCESSED          Z  4  3596  B E33             299
1922  18  03  *
1923  18  04  *PROCESS DS STATEMENTS
1924  18  05  *
1925  18  06  DSSTMT  B     COMSCN              SCAN FOR COMMA/BLANK Z  4  3600  B 860             299
1926  18  07          B     FNLOP               CHECK LAST OPERAND  Z  4  3604  B W05             299
1927  18  08          B     FR2FIX              CONVERT TO FIXED FORM Z 4  3608  B 952             299
1928  18  09          BWZ   CKEQU,INPUT+21,2    Q. ACTUAL OPERAND   Z  8  3612  V F55 021 2       300
1929  18  10          BCE   CK4ADJ,IMAGE+17,*   Q. ASTERISK OPERAND Z  8  3620  B F44 117 *       300
1930  18  11          BCE   NUREC,IMAGE+17,(    Q. I/O OPERAND      Z  8  3628  B 534 117 (       300
1931  18  12          B     PROPND              GENERATE LABEL ADDRESS Z 4  3636  B C28             300
1932  18  13          B     NUREC                                   Z  4  3640  B 534             300
1933  18  14  CK4ADJ  ZA    IMAGE+26,IMAGE+61   PICKUP CHARACTER    Z  7  3644  + 126 161         300
1934  18  15          B     DSETAD               ADJUSTMENT         Z  4  3651  B -82             301
1935  18  16  CKEQU   ZA    IMAGE+21,W5AREA     CONVERT ACTUAL OPND OF Z 7  3655  + 121 H76         301
1936  18  17          B     CVRT5                EQU AND DS         Z  4  3662  B V78             301
1937  18  18          A     IMAGE+26,W5AREA     ADD CHARACTER ADJ   Z  7  3666  A 126 H76         301
1938  18  19          BCE   DCWACT,IMAGE+75,P   Q. EQU CODE        Z  8  3673  B -50 175 P       301
1939  18  20          A     W5AREA,ORGCTR       PROCESS DS          Z  7  3681  A H76 H58         301
1940  18  21          B     BMPCTR                                  Z  4  3688  B -75             302
1941  18  22  *
1942  18  23  *PROCESS SUFFIX STATEMENTS
1943  18  24  *
1944  18  25  DOSFX   MLC   INPUT+21,IMAGE+17   SABE SUFFIX         Z  7  3692  M 021 117         302
1945  18  26          MCW   INPUT+21,SFXHLD      CHARACTER          Z  7  3699  M 021 H86         302
1946  18  27          B     NUREC                                   Z  4  3706  B 534             302
1947  18  28  *
1948  18  29  *PROCESS EXECUTE, END STATEMENTS
1949  18  30  *
1950  18  31  EXEND  B     COMSCN              SCAN FOR COMMA/BLANK Z  4  3710  B 860             302
1951  18  32          B     FNLOP               CHECK LAST OPERAND  Z  4  3714  B W05             302
1952  18  33          B     FR2FIX              CONVERT TO FIXED FORM Z 4  3718  B 952             302
1953  18  34          BCE   NUREC,INPUT+16,X                       Z  8  3722  B 534 016 X       303
1954  18  35          B     CALL                MERGE LITERALS      Z  4  3730  B U31             303
1955  18  36          LTORG *                                       Z        3734
      1719  LENSW   DCW   =01                                     Z  1  3734            AREA    303
                          '01'                                    Z  2  3736            LIT     303
                          +3                                      Z  1  3737            LIT     303
                          '010'                                   Z  3  3740            LIT     303
                          '011'                                   Z  3  3743            LIT     303
                          +1                                      Z  1  3744            LIT     304
                          '51'                                    Z  2  3746            LIT     304
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SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					'('		Z	1	3747		LIT	304
					'0'		Z	1	3748		LIT	304
					'==='		Z	3	3751		LIT	304
					'002'		Z	3	3754		LIT	304
					'='		Z	1	3755		LIT	304
					'07'		Z	2	3757		LIT	305
					'$'		Z	1	3758		LIT	305
1956	18	37	GRPMK2	DCW	' '	SYSTEM GROUP MARK	Z	1	3759			305
1957	18	38	SAVE	EQU	*+1		Z		3760			
1958	18	39		EX	DOZERO		Z			B 000		306

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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1959 18 40          JOB   1401 AUTOCODER-PASS 4 PROCESS DA -VERSION 3
1960 18 41   *
1961 18 42   *PROCESS DA STATEMENTS
1962 18 43   *
1963 18 44          ORG   DOPROG                                  Z          2575                 
1964 18 45   DASTMT BSP   SYSTAP                 RE-POSITION SYSTEM Z  5  2575  U (U1 B            309
1965 18 46          BSP   SYSTAP                  TAPE              Z  5  2580  U (U1 B            309
1966 18 47          SW    NUMSW,DACSW           Q. FIRST CHAR -X-  Z  7  2585  , F31 F55          309
1967 18 48          SW    FRMKSW,DGMKSW         SET SWITICHES      Z  7  2592  , F58 F57          309
1968 18 49          BCE   DAERR,INPUT+21,X                        Z  8  2599  B C14 021 X        309
1969 18 50   EXSCAN BCE   NDXSCN,INPUT+22+X2,X  SCAN FOR -X- IN -BXL- Z 8  2607  B 034 0K2 X     310
1970 18 51          BCE   DAERR,XL2,4                            Z  8  2615  B C14 094 4        310
1971 18 52          A     +1,XL2                                  Z  7  2623  A F18 094          310
1972 18 53          B     EXSCAN                                  Z  4  2630  B 007              310
1973 18 54   NDXSCN A     INPUT+21+X2,BLKCTR    GET BLOCKING FACTOR Z 7  2634  A 0K1 F17          310
1974 18 55          A     +2,XL2                                  Z  7  2641  A F19 094          311
1975 18 56          B     COMSCN                                  Z  4  2648  B 860              311
1976 18 57          ZA    INPUT+19+X2,RECNTR=5  GET RECORD LENGTH  Z  7  2652  + 0J9 F24          311
1977 18 58   FINHED BCE   DAINDX,INPUT+21+X2,X  Q. INDEXING       Z  8  2659  B C73 0K1 X        311
1978 18 59          BCE   DAGMRK,INPUT+21+X2,G  Q. GROUP MARK     Z  8  2667  B C91 0K1 G        311
1979 18 60          BCE   DAFMRK,INPUT+21+X2,‡  Q. RECORD MARK    Z  8  2675  B D06 0K1 ‡        312
1980 18 61          BCE   DACLR,INPUT+21+X2,C   Q. CLEAR OPTION   Z  8  2683  B C65 0K1 C        312
1981 18 62          BCE   CMPSZ,INPUT+20+X2,    Q. NO OTHER OPTIONS Z 8  2691  B P06 0K0          312
1982 18 63          MZ    ABIT,IMAGE+5          MARK BAD STATEMENT Z  7  2699  Y 187 105          312
1983 18 64   CMPSZ  S     W5AREA                                  Z  4  2706  S H76              312
1984 18 65          MCW   BLKCTR,B2CNTR          COMPUTE SIZE OF AREA Z 7  2710  M F17 H67          313
1985 18 66   DAREP  S     +1,B2CNTR             AND STORE IN B2CNTR Z 7  2717  S F18 H67          313
1986 18 67          BM    SFANS, B2CNTR                           Z  8  2724  V P43 H67 K       313
1987 18 68          A     RECNTR,W5AREA                           Z  7  2732  A F24 H76          313
1988 18 69          B     DAREP                                   Z  4  2739  B P17              313
1989 18 70   SFANS  MCW   W5AREA,B2CNTR                          Z  7  2743  M H76 H67          314
1990 18 71          MLC   '*',IMAGE+17                           Z  7  2750  M F25 117          314
1991 18 72          BCE   DASTR,INPUT+6,         DETERMINE WHETHER Z 8  2757  B P73 006          314
1992 18 73          BWZ   DANUM,INPUT+6,2         LOCATION OF DA IS Z 8  2765  V P98 006 2        314
1993 18 74   DASTR  MLC   ORGCTR,DALOC=5          ACTUAL OR ASTERISK Z 7  2773  M H58 F30          314
1994 18 75          A     +1,DALOC              PROCESS DA*        Z  7  2780  A F18 F30          315
1995 18 76          A     W5AREA,ORGCTR         BUMP ORIGIN COUNTER Z 7  2787  A H76 H58          315
1996 18 77          B     ENDDA                                   Z  4  2794  B Q20              315
1997 18 78   DANUM  MLC   INPUT+10,IMAGE+21     PROCESS ACTUAL DA  Z  7  2798  M 010 121          315
1998 18 79          CW    NUMSW=1               SET ACTUAL DA SWITCH Z 4  2805  ) F31              315
1999 18 80          B     CVTFLA                                  Z  4  2809  B W28              315
2000 18 81          MLC   W5AREA,DALOC                           Z  7  2813  M H76 F30          316
2001 18 82   ENDDA  MLC   DALOC,IMAGE+66         GENERATE HIGH ORDER Z 7  2820  M F30 166          316
2002 18 83          MLC   DALOC                  LOCATION OF DA     Z  4  2827  M F30              316
2003 18 84          A     RECNTR,IMAGE+66                         Z  7  2831  A F24 166          316
2004 18 85          S     +1,IMAGE+66                             Z  7  2838  S F18 166          316
2005 18 86          S     +1,DALOC                                Z  7  2845  S F18 F30          316
2006 18 87          CW    HEDSW=1                                 Z  4  2852  ) F32              317
2007 18 88          BW    DALOOP,DACSW          Q. CLEAR OPTION    Z  8  2856  V +37 F55 1        317
2008 18 89          MCW   IMAGE+80,DAHLD         SAVE IMAGE         Z  7  2864  M 180 G54          317
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 SEQ  PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
2009  18 90          CHAIN 10                                                          MACRO
2010                 MCW                                     Z   1   2871  M           GEN     317
2011                 MCW                                     Z   1   2872  M           GEN     317
2012                 MCW                                     Z   1   2873  M           GEN     317
2013                 MCW                                     Z   1   2874  M           GEN     317
2014                 MCW                                     Z   1   2875  M           GEN     318
2015                 MCW                                     Z   1   2876  M           GEN     318
2016                 MCW                                     Z   1   2877  M           GEN     318
2017                 MCW                                     Z   1   2878  M           GEN     318
2018                 MCW                                     Z   1   2879  M           GEN     318
2019                 MCW                                     Z   1   2880  M           GEN     318
2020  18 91          MCW   'A',IMAGE+75      CODE DC STATEMENT AND Z   7   2881  M F33 175           318
2021  18 92          MCW   BLANK4,IMAGE+80    TO CLEAR ENTIRE DA   Z   7   2888  M H62 180           319
2022  18 93          MCW   BLANK4,IMAGE+55    AREA                 Z   7   2895  M H62 155           319
2023  18 94          MCW   BLANK4,IMAGE+27   NOTE - EACH DC IS 19  Z   7   2902  M H62 127           319
2024  18 95          SW    INITSW             CHARACTERS           Z   4   2909  , H87               319
2025  18 96          MCW   BLANK4,IMAGE+11    OPTIMIZING THE       Z   7   2913  M H62 111           319
2026  18 97          MCW   'DC ',IMAGE+16     CONDENSED CARD       Z   7   2920  M F36 116           319
2027  18 98          MCW   '19',IMAGE+7                           Z   7   2927  M F38 107           320
2028  18 99          MCW   DALOC,IMAGE+61                        Z   7   2934  M F30 161           320
2029  19 00  CKNDQ   C     B2CNTR,+0020                          Z   7   2941  C H67 F42           320
2030  19 01          BH    DOLST                                 Z   5   2948  B R82 U             320
2031  19 02          A     +19,IMAGE+61                          Z   7   2953  A F44 161           320
2032  19 03          MZ    ABBIT,IMAGE+1                         Z   7   2960  Y 189 101           321
2033  19 04          B     PUT                                   Z   4   2967  B 610               321
2034  19 05          S     +19,B2CNTR                            Z   7   2971  S F44 H67           321
2035  19 06          B     CKNDQ                                 Z   4   2978  B R41               321
2036  19 07  DOLST   C     B2CNTR,+0000                          Z   7   2982  C H67 F48           321
2037  19 08          BE    RTMGE                                 Z   5   2989  B +20 S             321
2038  19 09          MN    B2CNTR,IMAGE+7                        Z   7   2994  D H67 107           322
2039  19 10          MN                                          Z   1   3001  D                   322
2040  19 11          A     B2CNTR,IMAGE+61                       Z   7   3002  A H67 161           322
2041  19 12          MZ    ABBIT,IMAGE+1                         Z   7   3009  Y 189 101           322
2042  19 13          B     PUT                                   Z   4   3016  B 610               322
2043  19 14  RTMGE   MCW   DAHLD,IMAGE+80   RESTORE IMAGE AREA   Z   7   3020  M G54 180           322
2044  19 15          CHAIN 10                                                          MACRO
2045                 MCW                                     Z   1   3027  M           GEN     322
2046                 MCW                                     Z   1   3028  M           GEN     323
2047                 MCW                                     Z   1   3029  M           GEN     323
2048                 MCW                                     Z   1   3030  M           GEN     323
2049                 MCW                                     Z   1   3031  M           GEN     323
2050                 MCW                                     Z   1   3032  M           GEN     323
2051                 MCW                                     Z   1   3033  M           GEN     323
2052                 MCW                                     Z   1   3034  M           GEN     323
2053                 MCW                                     Z   1   3035  M           GEN     324
2054                 MCW                                     Z   1   3036  M           GEN     324
2055  19 16  DALOOP  SW    INITSW                            Z   4   3037  , H87               324
2056  19 17          ZA    +1,B2CNTR                         Z   7   3041  + F18 H67           324
2057  19 18  DAPUT   C     B2CNTR,BLKCTR   GENERATE -B- NUMBER  Z   7   3048  C H67 F17           324
2058  19 19          BH    PUTIT                             Z   5   3055  B B70 U             324
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2059 19 20   DAGET   CW    INITSW                                  Z   4   3060  ) H87             324
2060 19 21           BW    DAPUT2,HEDSW          Q. DA HEADER      Z   8   3064  V +90 F32 1       325
2061 19 22           MCW   IMAGE+66,GMKADD=5     SAVE LAST ADDRESS Z   7   3072  M 166 F53         325
2062 19 23           A     +1,GMKADD              AS POTENTIAL GROUP Z  7   3079  A F18 F53         325
2063 19 24           SW    HEDSW                  MARK ADDRESS      Z   4   3086  , F32             325
2064 19 25   DAPUT2  B     PUT                                     Z   4   3090  B 610             325
2065 19 26           BW    CKFNLG,MARKSW         Q. REC MARK LOOP  Z   8   3094  V E02 H88 1       325
2066 19 27   GET1    B     GET                                     Z   4   3102  B 538             326
2067 19 28           BCE   GET1,INPUT+6,*                         Z   8   3106  B A02 006 *        326
2068 19 29           C     INPUT+19,BLANK4       Q. FIELD CARD     Z   7   3114  C 019 H62         326
2069 19 30           BU    CKFMRK                                  Z   5   3121  B D21 /           326
2070 19 31           MCW   INPUT+84,IMAGE+80     PICKUP ALTER NUMBER Z 7   3126  M 084 180         326
2071 19 32           BCE   *+5,INPUT+6,          Q. LABEL          Z   8   3133  B A45 006         326
2072 19 33           B     PROLBL                PROCESS LABEL     Z   4   3141  B V38             327
2073 19 34           MLC   +0,IMAGE+75           CODE RECORD       Z   7   3145  M F54 175         327
2074 19 35           S     XL2+1                 FIND LIMITS OF FIELD Z 4  3152  S 095             327
2075 19 36           B     COMSCN                                  Z   4   3156  B 860             327
2076 19 37           ZA    INPUT+19+X2,IMAGE+66                    Z   7   3160  + 0J9 166         327
2077 19 38           C     RECNTR,IMAGE+66       Q. DOES FIELD EXCEED Z 7  3167  C F24 166         327
2078 19 39           BH    TFERR                  LIMIT OF DA       Z   5   3174  B C39 U           327
2079 19 40           BCE   SUBFLD,INPUT+20+X2,   Q. SUBFIELD      Z   8   3179  B B52 0K0         328
2080 19 41           B     COMSCN                                  Z   4   3187  B 860             328
2081 19 42           B     FNLOP                                   Z   4   3191  B W05             328
2082 19 43           ZA    INPUT+19+X2,IMAGE+61                    Z   7   3195  + 0J9 161         328
2083 19 44           C     RECNTR,IMAGE+61       Q. DOES FIELD EXCEED Z 7  3202  C F24 161         328
2084 19 45           BH    TFERR                  LIMIT OF DA       Z   5   3209  B C39 U           328
2085 19 46           C     IMAGE+61,IMAGE+66     Q. FIELDS SPECIFIED IN Z 7  3214  C 161 166         329
2086 19 47           BH    FLDERR                 IN CORRECT ORDER  Z   5   3221  B C54 U           329
2087 19 48   ADDREC  A     DALOC,IMAGE+61        CREATE ADDRESS FOR Z  7   3226  A F30 161         329
2088 19 49           A     DALOC,IMAGE+66         FIELDS           Z   7   3233  A F30 166         329
2089 19 50           BM    DAGET,IMAGE+75        Q. SUB FIELD      Z   8   3240  V +60 175 K       329
2090 19 51           B     DALOOP                                  Z   4   3248  B +37             329
2091 19 52   SUBFLD  MLZS  BBIT,IMAGE+75         PROCESS SUBFIELDS Z   7   3252  Y 188 175         330
2092 19 53           MLC   IMAGE+66,IMAGE+61                      Z   7   3259  M 166 161         330
2093 19 54           B     ADDREC                                  Z   4   3266  B B26             330
2094 19 55   PUTIT   B     PUT                                     Z   4   3270  B 610             330
2095 19 56           BW    *+8,MARKSW            Q. RECORD MARK LOOP Z 8   3274  V B89 H88 1       330
2096 19 57           MZ    ABIT,IMAGE+75         CODE REPEATS      Z   7   3282  Y 187 175         330
2097 19 58           A     +1,B2CNTR                               Z   7   3289  A F18 H67         331
2098 19 59           A     RECNTR,IMAGE+61       COMPUTE FIELD LIMITS Z 7  3296  A F24 161         331
2099 19 60           A     RECNTR,IMAGE+66                         Z   7   3303  A F24 166         331
2100 19 61           B     DAPUT                                   Z   4   3310  B +48             331
2101 19 62   DAERR   MLZS  ABBIT,IMAGE+4         IMPROPERLY CODED DA Z 7   3314  Y 189 104         331
2102 19 63           ZA    +1,BLKCTR              HEADER ROUTINE    Z   7   3321  + F18 F17         331
2103 19 64           ZA    +1,RECNTR                               Z   7   3328  + F18 F24         332
2104 19 65           B     CMPSZ                                   Z   4   3335  B P06             332
2105 19 66   TFERR   SBR   *+11                  MARK ERROR        Z   4   3339  H C53             332
2106 19 67           MZ    ABIT,IMAGE+5                            Z   7   3343  Y 187 105         332
2107 19 68           B     XXXX                                    Z   4   3350  B 000             332
2108 19 69   FLDERR  MZ    BBIT,IMAGE+5          IMPROPERLY CODED DA Z 7   3354  Y 188 105         332
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2109 19 70          B     DAPUT2                                   Z  4  3361  B +90              332
2110 19 71  DACLR   CW    DACSW=1                                  Z  4  3365  ) F55              333
2111 19 72          B     DATWO                                    Z  4  3369  B C95              333
2112 19 73  DAINDX  MLNS  INPUT+22+X2,IMAGE+27                    Z  7  3373  D OK2 127          333
2113 19 74          A     +3,XL2                                   Z  7  3380  A F56 094          333
2114 19 75          B     FINHED                                   Z  4  3387  B 059              333
2115 19 76  DAGMRK  CW    DGMKSW=1                                 Z  4  3391  ) F57              333
2116 19 77  DATWO   A     +2,XL2                                   Z  7  3395  A F19 094          333
2117 19 78          B     FINHED                                   Z  4  3402  B 059              334
2118 19 79  DAFMRK  A     +1,RECNTR                                Z  7  3406  A F18 F24          334
2119 19 80          CW    FRMKSW=1                                 Z  4  3413  ) F58              334
2120 19 81          B     DATWO                                    Z  4  3417  B C95              334
2121 19 82  CKFMRK  SW    MARKSW                                   Z  4  3421  , H88              334
2122 19 83          BW    CKFNLG,FRMKSW                            Z  8  3425  V E02 F58 1        334
2123 19 84          MLC   ''≠'',IMAGE+25                          Z  7  3433  M F61 125          334
2124 19 85          MLC   'DC *',IMAGE+17                          Z  7  3440  M F65 117          335
2125 19 86          MLC                                            Z  1  3447  M                  335
2126 19 87          MLC   +1,IMAGE+75                              Z  7  3448  M F18 175          335
2127 19 88          MLC   '01',IMAGE+7                             Z  7  3455  M F67 107          335
2128 19 89          MLC   DALOC,IMAGE+61                           Z  7  3462  M F30 161          335
2129 19 90          A     RECNTR,IMAGE+61                          Z  7  3469  A F24 161          335
2130 19 91          BW    DALOOP,NUMSW                             Z  8  3476  V +37 F31 1        336
2131 19 92          MCW   BLANK,IMAGE+17                          Z  7  3484  M H59 117          336
2132 19 93          MZ    ABBIT,IMAGE+3                            Z  7  3491  Y 189 103          336
2133 19 94          B     DALOOP                                   Z  4  3498  B +37              336
2134 19 95  CKFNLG  BW    CALLOP,DGMKSW                            Z  8  3502  V E93 F57 1        336
2135 19 96          MLC   'DCW',IMAGE+16                          Z  7  3510  M F70 116          337
2136 19 97          MLC   '1',IMAGE+75                             Z  7  3517  M F71 175          337
2137 19 98          MLC   '01',IMAGE+7                             Z  7  3524  M F67 107          337
2138 19 99          MCW   GMKADD,IMAGE+61                          Z  7  3531  M F53 161          337
2139 20 00          MLC   '' '',IMAGE+25                           Z  7  3538  M F74 125          337
2140 20 01          BW    GMKAST,NUMSW                             Z  8  3545  V E75 F31 1        338
2141 20 02          MCW   BLANK,IMAGE+17                          Z  7  3553  M H59 117          338
2142 20 03          MZ    ABBIT,IMAGE+3                            Z  7  3560  Y 189 103          338
2143 20 04  PUTGMK  B     PUT                                      Z  4  3567  B 610              338
2144 20 05          B     CALLOP                                   Z  4  3571  B E93              338
2145 20 06  GMKAST  A     +1,ORGCTR                                Z  7  3575  A F18 H58          338
2146 20 07          MCW   '*',IMAGE+17                            Z  7  3582  M F25 117          339
2147 20 08          B     PUTGMK                                   Z  4  3589  B E67              339
2148 20 09  CALLOP  BSP   INTAP                                    Z  5  3593  U (U4 B           339
2149 20 10          B     GET                                      Z  4  3598  B 538              339
2150 20 11          CW    MARKSW,GRPMK6                            Z  7  3602  ) H88 G55         339
2151 20 12          B     FINDA                                    Z  4  3609  B M62             339
2152 20 13  BLKCTR  DCW   +00000                                   Z  5  3617                   339
2153 20 14          LTORG *                                        Z        3618                
                    DCW   +1                                       Z  1  3618        LIT       340
                          +2                                       Z  1  3619        LIT       340
      1976  RECNTR        =05                                      Z  5  3624        AREA      340
                          '*'                                      Z  1  3625        LIT       340
      1993  DALOC         =05                                      Z  5  3630        AREA      340
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SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		1998	NUMSW		=01		Z	1	3631		AREA	340
		2006	HEDSW		=01		Z	1	3632		AREA	340
					'A'		Z	1	3633		LIT	341
					'DC '		Z	3	3636		LIT	341
					'19'		Z	2	3638		LIT	341
					+0020		Z	4	3642		LIT	341
					+19		Z	2	3644		LIT	341
					+0000		Z	4	3648		LIT	341
		2061	GMKADD		=05		Z	5	3653		AREA	341
					+0		Z	1	3654		LIT	342
		2110	DACSW		=01		Z	1	3655		AREA	342
					+3		Z	1	3656		LIT	342
		2115	DGMKSW		=01		Z	1	3657		AREA	342
		2119	FRMKSW		=01		Z	1	3658		AREA	342
					''‡''		Z	3	3661		LIT	342
					'DC *'		Z	4	3665		LIT	342
					'01'		Z	2	3667		LIT	343
					'DCW'		Z	3	3670		LIT	343
					'1'		Z	1	3671		LIT	343
					'' ''		Z	3	3674		LIT	343
2154	20	15		DA	1X80		Z		3675	3754		343
2155	20	16	DAHLD		80		Z		3754		SBFLD	
2156	20	17	GRPMK6	DCW	' '	SYSTEM GROUP MARK	Z	1	3755			344
2157	20	18		EX	DOZERO		Z		B 000			345

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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2158 20 19           JOB   1401 AUTOCODER-PASS 4 PROCESS LITERALS -VERSION 3
2159 20 20           ORG   DOPROG                                  Z          2575
2160 20 21  OVLLIT   WTM   LITAPE                                  Z   5  2575  U (U6 M              348
2161 20 22           WTW   LITAPE,IMAGE+1          SAVE IMAGE AREA Z   8  2580  L (U6 101 W          348
2162 20 23           NOP   0                                       Z   4  2588  N 000                348
2163 20 24           BER   TPERR                                   Z   5  2592  B 221 L              348
2164 20 25           BEF   *+1                     RESET EOF TRIGGER Z   5  2597  B 002 K              348
2165 20 26           WTW   LITAPE,IMAGE+1          NOTE - MUST WRITE OUT Z 8  2602  L (U6 101 W       348
2166 20 27           NOP   0                        IMAGE AREA TWICE Z   4  2610  N 000                348
2167 20 28           BER   TPERR                    BECAUSE EOF TREATED Z 5  2614  B 221 L              349
2168 20 29  *                                        AS NOISE RECORD
2169 20 30           RWD   LITAPE                                  Z   5  2619  U (U6 R               349
2170 20 31           BSP   SYSTAP                  POSITION SYSTEM TAPE Z 5  2624  U (U1 B              349
2171 20 32           BSP   SYSTAP                   TO BRING BACK   Z   5  2629  U (U1 B              349
2172 20 33           BSP   SYSTAP                   MAIN LINE       Z   5  2634  U (U1 B              349
2173 20 34           CW    GRPMK7                                  Z   4  2639  ) Q27                349
2174 20 35           CS    INPUT+80                BLANK INPUT AND FIXED Z 4  2643  / 080              349
2175 20 36           SW    INPUT+16,LITSW2          FORM AREA      Z   7  2647  , 016 H90             350
2176 20 37           MRCM  INPUT+1,IMAGE+1                        Z   7  2654  P 001 101             350
2177 20 38           MLC   BLANK4,IMAGE+80                        Z   7  2661  M H62 180             350
2178 20 39           S     XL2+2                                   Z   4  2668  S 096                350
2179 20 40           S                                             Z   1  2672  S                    350
2180 20 41           MLC   'DCW',IMAGE+16                         Z   7  2673  M Q15 116             350
2181 20 42  LITGB    MCW   +INPUT+13,N2+6                         Z   7  2680  M Q18 446             351
2182 20 43           RT    LITAPE,INPUT+1          READ IN LITERAL Z   8  2687  M (U6 001 R          351
2183 20 44           B     NOISE                   CHECK FOR NOISE Z   4  2695  B 425                351
2184 20 45           BER   TPERR                                   Z   5  2699  B 221 L              351
2185 20 46           BEF   RTNLIT                  Q. ANY MORE LITERALS Z 5  2704  B P39 K              351
2186 20 47           MCW   INPUT+4,IMAGE+70       CODE MOTHER RECD NUMBR Z 7  2709  M 004 170            351
2187 20 48           MLC   '/',IMAGE+75            CODE RECORD     Z   7  2716  M Q19 175             352
2188 20 49           B     PROLBL                  PROCESS LABEL   Z   4  2723  B V38                352
2189 20 50           B     DCWCD                   PROCESS STATEMENT Z 4  2727  B Y11                352
2190 20 51  LITRTN   B     PUT                     PUT RECORD      Z   4  2731  B 610                352
2191 20 52           B     LITGB                                   Z   4  2735  B 080                352
2192 20 53  RTNLIT   MCW   +IMAGE+13,N2+6                         Z   7  2739  M Q22 446             352
2193 20 54           RTW   LITAPE,IMAGE+1          REGENERATE IMAGE AREA Z 8  2746  L (U6 101 R          352
2194 20 55           B     NOISE                   CHECK FOR NOISE Z   4  2754  B 425                353
2195 20 56           BER   TPERR                                   Z   5  2758  B 221 L              353
2196 20 57           RWD   LITAPE                                  Z   5  2763  U (U6 R              353
2197 20 58           SW    LITSW                   RESET LITERAL SWITCH Z 4  2768  , N46                353
2198 20 59           CW    LITSW2                                  Z   4  2772  ) H90                353
2199 20 60           A     +10,EXNUMB              SECTION TO GUARANTEE Z 7  2776  A Q24 193           353
2200 20 61           BCE   *+5,EXNUMB-1,0           UNIQUENESS OF  Z   8  2783  B P95 192 0          353
2201 20 62           B     RECALL                   LITERAL LABELS UP TO Z 4  2791  B U68                354
2202 20 63           A     +96,EXOVFL               80 LTORG OR EX CARDS Z 7  2795  A Q26 191           354
2203 20 64           A     +96,EXOVFL                              Z   7  2802  A Q26 191            354
2204 20 65           B     RECALL                                  Z   4  2809  B U68                354
2205 20 66           LTORG *                                       Z          2813
                     DCW   'DCW'                                   Z   3  2815              LIT      354
      2181                 +INPUT+13                               Z   3  2818  013         ADCON    354
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SEQ	PG	LIN	LABEL	OP	OPERANDS		SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					'/'		Z	1	2819		LIT	354
		2192			+IMAGE+13		Z	3	2822	113	ADCON	355
					+10		Z	2	2824		LIT	355
					+96		Z	2	2826		LIT	355
2206	20	67	GRPMK7	DCW	' '	SYSTEM GROUP MARK	Z	1	2827			355
2207	20	68		EX	DOZERO		Z			B 000		356

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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
2208 20 69          JOB   1401 AUTOCODER-PASS 4 END OF PASS OVERLAY -VERSION 3
2209 20 70          ORG   SAVE2                                   Z          0706
2210 20 71   EOJRT  RWD   LITAPE                                  Z   5  0706  U (U6 R            359
2211 20 72          B     PUT                  PUT END CARD       Z   4  0711  B 610              359
2212 20 73          WT    OUTAP,OUTPUT+1       ASSURE LAST RECORD Z   8  0715  M (U5 I18 W        359
2213 20 74          NOP   0                     IS WRITTEN         Z   4  0723  N 000              359
2214 20 75          BER   TPERR                 WHEN BLOCKING      Z   5  0727  B 221 L           359
2215 20 76          WTM   OUTAP                                   Z   5  0732  U (U5 M           359
2216 20 77          RWD   OUTAP                                   Z   5  0737  U (U5 R           359
2217 20 79          CS    INPUT+85             CLEAR ALL GROUP    Z   4  0742  / 085             360
2218 20 80          CW    GRPMK2,GRPMK3         MARKS             Z   7  0746  ) G59 H44         360
2219 20 81          CW    GRPMK4                                  Z   4  0753  ) 185             360
2220 20 82          RTW   SYSTAP,PASSC1        READ PASS 5        Z   8  0757  L (U1 Z25 R        360
2221 20 83          NOP   0                                       Z   4  0765  N 000             360
2222 20 84          BER   TPERR                                   Z   5  0769  B 221 L           360
2223 20 85          LCA   TOTLBL,2393          PASS INFORMATION TO Z  7  0774  L 198 L93         360
2224 20 86          LCA   PROCOR,2389           PASS 5             Z   7  0781  L 194 L89         361
2225 20 87          B     PASSC2               GO TO PASS 5       Z   4  0788  B M00             361
2226 20 88          DCW   0                                       Z   1  0792                   361
2227 20 89          DCW   ' '                  SYSTEM GROUP MARK  Z   1  0793                   361
2228 20 90          EX    0                                       Z          B 000             362
2229 20 91   *
2230 20 92   * EQUATES
2231 20 93   *
2232 20 94   INTAP  EQU   (U4                                     Z       (U4
2233 20 95   OUTAP  EQU   (U5                                     Z       (U5
2234 20 96   LITAPE EQU   (U6                                     Z       (U6
2235 20 97   K4K    EQU   4000                                    Z       4000
2236 20 98   W3AREA EQU   W6AREA-3                EQUATES         Z       3874
2237 20 99   W5AREA EQU   W6AREA-1                               Z       3876
2238 21 00   BLANK  EQU   BLANK4-3                               Z       3859
2239 21 01   BLANK2 EQU   BLANK4-2                               Z       3860
2240 21 02   HOLD2  EQU   B2CNTR-3                              Z       3864
2241 21 03   HOLD3  EQU   B2CNTR-2                              Z       3865
2242 21 04   ABIT   EQU   ZONE-2                                Z       0187
2243 21 05   BBIT   EQU   ZONE-1                                Z       0188
2244 21 06   ABBIT  EQU   ZONE                                  Z       0189
2245 21 07   XXXX   EQU   000                                   Z       0000
2246 21 08   INPUT  EQU   000                                   Z       0000
2247 21 09   OUTPUT EQU   3917                                  Z       3917
2248 21 10   PASSC1 EQU   1925                                  Z       1925
2249 21 11   PASSC2 EQU   2400                                  Z       2400
2250 21 12   DOZERO EQU   000                                   Z       0000
2251 21 13   FREE   EQU   INPUT                                 Z       0000
2252 21 14          END   START                                 Z          / N75 080         365
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CLEAR STORAGE 1      ,008015,019026,030,034041,045,053,0570571026                                                1
CLEAR STORAGE 2      L068112,102106,113/101099/I99,027A07002810278001027B0261,001/00111310                       2
BOOTSTRAP            ,008015,022029,036040,047054,061068,072/061039                ,0010011040                   3


                          1401 AUTOCODER-PASS 5-PROCESS LABELS-INITL-VERSION 3       3751L                PAGE    1


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

 101  1 01   000    JOB   1401 AUTOCODER-PASS 5-PROCESS LABELS-INITL-VERSION 3
 102  1 02          CTL   63011
 103  1 03   *
 104  1 04   * EQUATES USED BY PROGRAM
 105  1 05   *
 106  1 06   INITAP EQU   (U0                                                            (U0
 107  1 07   SYSTPE EQU   (U1                                                            (U1
 108  1 08   SAVETP EQU   (U4                                                            (U4
 109  1 09   CINPUT EQU   (U5                                                            (U5
 110  1 10   COUTPT EQU   (U6                                                            (U6
 111  1 11   DOUTPT EQU   (U5                                                            (U5
 112  1 12   DINPUT EQU   (U6                                                            (U6
 113  1 13   TABLE  EQU   2409                                                          2409
 114  1 14   ADDLO  EQU   TABLE-006+X2                                                  2403 X
 115  1 15   SYMHO  EQU   TABLE-005+X2                                                  2404 X
 116  1 16   ADDHO  EQU   TABLE-009+X2                                                  2400 X
 117  1 17   LBLREF EQU   TABLE-008+X2                                                  2401 X
 118  1 18   SYMBOL EQU   TABLE+X2                                                      2409 X
 119  1 19   CARD   EQU   0                                                             0000
 120  1 20   STAOP  EQU   CARD+001                                                      0001
 121  1 21   STLABL EQU   CARD+002                                                      0002
 122  1 22   STADDR EQU   CARD+003                                                      0003
 123  1 23   STBOP  EQU   CARD+004                                                      0004
 124  1 24   COUNT  EQU   CARD+007                                                      0007
 125  1 25   LABEL  EQU   CARD+013                                                      0013
 126  1 26   AOPER  EQU   CARD+022                                                      0022
 127  1 27   AOPADJ EQU   CARD+026                                                      0026
 128  1 28   AINDEX EQU   CARD+027                                                      0027
 129  1 29   ORGADD EQU   CARD+032                                                      0032
 130  1 30   CNVLAB EQU   CARD+056                                                      0056
 131  1 31   LABADD EQU   CARD+061                                                      0061
 132  1 32   SUPADD EQU   CARD+066                                                      0066
 133  1 33   AOP    EQU   CARD+070                                                      0070
 134  1 34   TYPE   EQU   CARD+075                                                      0075
 135  1 35   AOPHO  EQU   CARD+017                                                      0017
 136  1 36   LBLHO  EQU   CARD+008                                                      0008
 137  1 37   HOADD  EQU   CARD+057                                                      0057
 138  1 38   TPAREA EQU   3918                                                         3918
 139  1 39   INPUT  EQU   TPAREA-001+X3                                                3917 X
 140  1 40   LIMIT  EQU   TPAREA+13                                                    3931
 141  1 41   XXXX   EQU   0                                                             0000
 142  1 42   GPMRK3 EQU   3998                                                         3998
 143  1 43   LIBRN  EQU   0                                                             0000
 144  1 44   *
 145  1 45   *
 146  1 46   * GET, PUT, REDUNDANCY +
 147  1 47   * CROSSOVER ROUTINES COMMON
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SEQ PG LIN  LABEL   OP     OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
148  1 48   * TO BOTH PASSES
149  1 49   *
150  1 50   *
151  1 51           ORG    ENDOFC+1                                    1925
152  1 52   *
153  1 53   * GET + PUT
154  1 54   *
155  1 55   GET     C      BLKCT,KBLKNG                      7   1925  C L30 L26          4
156  1 56           BE     WRITE                             5   1932  B X67 S            4
157  1 57   NXTREC  A      +80,BLKCT                         7   1937  A L36 L30          4
158  1 58           MCW    BLKCT,XR3                         7   1944  M L30 099          4
159  1 59   MOVEIN  MCW    INPUT,CARD+080                    7   1951  M IA7 080          4
160  1 60           CHAIN  9                                                   MACRO
161                 MCW                                      1   1958  M            GEN   4
162                 MCW                                      1   1959  M            GEN   4
163                 MCW                                      1   1960  M            GEN   5
164                 MCW                                      1   1961  M            GEN   5
165                 MCW                                      1   1962  M            GEN   5
166                 MCW                                      1   1963  M            GEN   5
167                 MCW                                      1   1964  M            GEN   5
168                 MCW                                      1   1965  M            GEN   5
169                 MCW                                      1   1966  M            GEN   5
170  1 61           S      XR3+001                           4   1967  S 100              6
171  1 62           S                                        1   1971  S                  6
172  1 63           S                                        1   1972  S                  6
173  1 64           B      ANAL                              4   1973  B 114              6
174  1 65   PUT     MCW    BLKCT,XR3                         7   1977  M L30 099          6
175  1 66           MCW    CARD+080,INPUT                    7   1984  M 080 IA7          6
176  1 67           CHAIN  9                                                   MACRO
177                 MCW                                      1   1991  M            GEN   6
178                 MCW                                      1   1992  M            GEN   7
179                 MCW                                      1   1993  M            GEN   7
180                 MCW                                      1   1994  M            GEN   7
181                 MCW                                      1   1995  M            GEN   7
182                 MCW                                      1   1996  M            GEN   7
183                 MCW                                      1   1997  M            GEN   7
184                 MCW                                      1   1998  M            GEN   7
185                 MCW                                      1   1999  M            GEN   8
186  1 68           B      GET                               4   2000  B Z25              8
187  1 69   *
188  1 70   *TAPE REDUNDANCY ROUTINE
189  1 71   *
190  1 72   TPERR   SBR    XR1                               4   2004  H 089              8
191  1 73           SBR    REDXT+3                           4   2008  H -76              8
192  1 74           MZ     +9,XR1                            7   2012  Y L37 089          8
193  1 75           MCW    4000-10+X1,TPINST+7               7   2019  M IZ0 -67          8
194  1 76           MN     TPINST+3,BSP1+3                   7   2026  D -63 -43          8
195  1 77           MCW    TPINST+7,INST2+7                  7   2033  M -67 J76          9
196  1 78   BSP1    BSP    INITAP                            5   2040  U (U0 B            9
197  1 79           BCE    WRTRED,TPINST+7,W                 8   2045  B J49 -67 W        9
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
198   1 80           MCW   +9,READCT=1                         7  2053  M L37 L38          9
199   1 81   TPINST  RT    INITAP,XXXX                         8  2060  M (U0 000 R        9
200   1 82           BER   RDRERR                              5  2068  B -77 L           10
201   1 83   REDXT   B     XXXX                                4  2073  B 000             10
202   1 84   RDRERR  MN    TPINST+3,BSP2+3                     7  2077  D -63 -87         10
203   1 85   BSP2    BSP   INITAP                              5  2084  U (U0 B           10
204   1 86           S     +1,READCT                           7  2089  S L39 L38         10
205   1 87           BWZ   TPINST,READCT,B                     8  2096  V -60 L38 B       10
206   1 88           MN    TPINST+3,TPHALT+6                   7  2104  D -63 J17         11
207   1 89   TPHALT  H     XXXX,590                            7  2111  . 000 590         11
208   1 90           MCW   TPINST+7,*+8                        7  2118  M -67 J32         11
209   1 91           RT    INITAP,XXXX                         8  2125  M (U0 000 R        11
210   1 92           BSS   BSP1,E                              5  2133  B -40 E           11
211   1 93   TPHLT3  H     XXXX,511                            7  2138  . 000 511         12
212   1 94           B     REDXT                               4  2145  B -73             12
213   1 95   WRTRED  SKP   SYSTPE                              5  2149  U (U1 E           12
214   1 96           BCE   SUBCTR,WRTCTR-1,5                   8  2154  B J86 L40 5       12
215   1 97           A     +1,WRTCTR=2                         7  2162  A L39 L41         12
216   1 98   INST2   WT    INITAP,XXXX                         8  2169  M (U0 000 W        12
217   1 99           BER   BSP1                                5  2177  B -40 L           13
218   2 00           B     REDXT                               4  2182  B -73             13
219   2 01   SUBCTR  S     WRTCTR                              4  2186  S L41             13
220   2 02           MN    TPINST+3,*+7                        7  2190  D -63 K03         13
221   2 03   TPHLT2  H     XXXX,560                            7  2197  . 000 560         13
222   2 04           B     INST2                               4  2204  B J69             13
223   2 05   *
224   2 06   * CHECK FOR SHORT RECORDS
225   2 07   *
226   2 08   CHKLGT  SBR   XR1                                 4  2208  H 089             13
227   2 09           SBR   LGTXT+3                             4  2212  H K46             14
228   2 10           MZ    +9,XR1                              7  2216  Y L37 089         14
229   2 11   LGTCK   BCE   4000-12+X1,LIMIT,                   8  2223  B IY8 I31         14
230   2 12           CHAIN 12                                                MACRO
231                  BCE                                       1  2231  B         GEN     14
232                  BCE                                       1  2232  B         GEN     14
233                  BCE                                       1  2233  B         GEN     14
234                  BCE                                       1  2234  B         GEN     14
235                  BCE                                       1  2235  B         GEN     15
236                  BCE                                       1  2236  B         GEN     15
237                  BCE                                       1  2237  B         GEN     15
238                  BCE                                       1  2238  B         GEN     15
239                  BCE                                       1  2239  B         GEN     15
240                  BCE                                       1  2240  B         GEN     15
241                  BCE                                       1  2241  B         GEN     15
242                  BCE                                       1  2242  B         GEN     16
243   2 13   LGTXT   B     XXXX                                4  2243  B 000             16
244   2 14   *
245   2 15   * CROSSOVER, C TO D
246   2 16   *
247   2 17   RDPSSD  RTW   SYSTPE,1                            8  2247  L (U1 001 R       16
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
248   2 18           NOP   XXXX                                 4  2255  N 000               16
249   2 19           BER   TPERR                                5  2259  B -04 L             16
250   2 20           CW    ENDOFD                               4  2264  ) Y68               16
251   2 21           B     PASSD                                4  2268  B S90               16
252   2 22   *
253   2 23   * CROSSOVER, D TO C
254   2 24   *
255   2 25   RDPSSC RTW   COUTPT,1                             8  2272  L (U6 001 R         17
256   2 26           NOP   XXXX                                 4  2280  N 000               17
257   2 27           BER   TPERR                                5  2284  B -04 L             17
258   2 28           CW    ENDOFC                               4  2289  ) Z24               17
259   2 29           B     CLRTAB                               4  2293  B Y13               17
260   2 30   *
261   2 31   * COMMON CONSTANTS
262   2 32   *
263   2 33   CLRMAX DCW   'I97'                                3  2299                      17
264   2 34   CLRMIN DSA   TABLE-010                            3  2302  L99                 17
265   2 35   FNCTN  DCW   '      '                             6  2308                      18
266   2 36   TABMAX DCW   'V00'                                3  2311                      18
267   2 37   MAXADD DCW   '   '                                3  2314                      18
268   2 38   TABLSZ DCW   +0150                                4  2318                      18
269   2 39   MAXSER DCW   '    '                               4  2322                      18
270   2 40   SFXCTR DCW   ' '                                  1  2323                      18
271   2 41   KBLKNG DCW   '080'                                3  2326                      18
272   2 42   BUMPOP DCW   '='                                  1  2327                      19
273   2 43   HOLDA  DCW   +0000                                4  2331                      19
274   2 44   BLKCT  EQU   HOLDA-001                               2330
275   2 45   TPAD   DSA   TPAREA                               3  2334  I18                 19
276   2 46          LTORG *                                          2335
                     DCW   +80                                 2  2336        LIT       19
                           +9                                  1  2337        LIT       19
        198  READCT        =01                                 1  2338        AREA      19
                           +1                                  1  2339        LIT       19
        215  WRTCTR        =02                                 2  2341        AREA      20
277   2 47   *
278   2 48   * PROTECTED CONSTANTS
279   2 49   *
280   2 50   FACTOR EQU   TABLE-021                               2388
281   2 51   MACHSZ EQU   TABLE-020                               2389
282   2 52   TOTLAB EQU   TABLE-016                               2393
283   2 53   UNPRSW EQU   TABLE-015                               2394
284   2 54   PROCSW EQU   TABLE-014                               2395
285   2 55   SERCHS EQU   TABLE-010                               2399
286   2 56   *
287   2 57   * INITIALIZE PASS C ONE TIME
288   2 58   *
289   2 59          ORG   TABLE-009                                  2400
290   2 60          RWD   SAVETP                                5  2400  U (U4 R             21
291   2 61          RWD   CINPUT                               5  2405  U (U5 R             21
292   2 62          RWD   COUTPT                               5  2410  U (U6 R             21
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SEQ  PG LIN  LABEL  OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
293   2 63          CS    3999                          4  2415  / I99               21
294   2 64          SW    GRPMRK                        4  2419  , Q66               21
295   2 65          LCA   '00',PROCSW                  7  2423  L Q68 L95           21
296   2 66          LCA   +0150,SERCHS                 7  2430  L Q72 L99           21
297   2 67          LCA   '0015',FACTOR                7  2437  L Q76 L88           22
298   2 68          RTW   SYSTPE,1                     8  2444  L (U1 001 R         22
299   2 69          NOP   XXXX                          4  2452  N 000               22
300   2 70          BER   TPERR                         5  2456  B -04 L             22
301   2 71          CW    ENDINT                        4  2461  ) R01               22
302   2 72    *
303   2 73    * SET I/O GROUP MARK
304   2 74    *
305   2 75          MCW   MACHSZ,KEEP1=001              7  2465  M L89 Q77           22
306   2 76          A     +3,KEEP1                      7  2472  A Q78 Q77           23
307   2 77          MN    KEEP1,*+004                   7  2479  D Q77 M89           23
308   2 78          MZ    ZONE2,*+007                   7  2486  Y 109 M99           23
309   2 79    SETIO LCA   GRPMRK,GPMRK3                 7  2493  L Q66 I98           23
310   2 80          BWZ   SETBMP,SETIC+006,2            8  2500  V P18 M99 2         23
311   2 81          CS    4799                          4  2508  / 79Z               24
312   2 82          CS    4399                          4  2512  / 39Z               24
313   2 83          MCW   '=',BUMP                      7  2516  M Q79 W81           24
314   2 84          BCE   SET8K,MACHSZ,4                8  2523  B 020 L89 4         24
315   2 85    *
316   2 86    * 12K CONSTANTS
317   2 87    *
318   2 88          MCW   BLKG12,KBLKNG                 7  2531  M Q52 L26           24
319   2 89          MCW   TBSZ12,TABLSZ                 7  2538  M Q56 L18           24
320   2 90          MCW   TBLM12,TABMAX                 7  2545  M Q59 L11           25
321   2 91          MCW   TPAD12,TPAD                   7  2552  M Q62 L34           25
322   2 92          MCW   MDTP12,MDTP=003               7  2559  M Q65 Q82           25
323   2 93          A     +72,FACTOR                    7  2566  A Q84 L88           25
324   2 94          BCE   SETTP,MACHSZ,5                8  2573  B 062 L89 5         25
325   2 95    *
326   2 96    * 16K CONSTANTS
327   2 97    *
328   2 98          A     +400,TABLSZ                   7  2581  A Q87 L18           26
329   2 99          A     +40,FACTOR                    7  2588  A Q89 L88           26
330   3 00          MZ    ABBIT,TABMAX                  7  2595  Y 113 L11           26
331   3 01          MZ    ABBIT,TPAD                    7  2602  Y 113 L34           26
332   3 02          MZ    ABBIT,MDTP                    7  2609  Y 113 Q82           26
333   3 03          B     SETTP                         4  2616  B 062               26
334   3 04    *
335   3 05    * 8K CONSTANTS
336   3 06    *
337   3 07    SET8K MCW   BLKG8K,KBLKNG                 7  2620  M Q36 L26           27
338   3 08          MCW   TBSZ8K,TABLSZ                 7  2627  M Q40 L18           27
339   3 09          MCW   TBLM8K,TABMAX                 7  2634  M Q43 L11           27
340   3 10          MCW   TPAD8K,TPAD                   7  2641  M Q46 L34           27
341   3 11          MCW   MDTP8K,MDTP                   7  2648  M Q49 Q82           27
342   3 12          A     +36,FACTOR                    7  2655  A Q91 L88           28
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
343   3 13   SETTP   MZ    TPAD,CLRMAX                         7  2662  Y L34 K99           28
344   3 14           MCW   MDTP,MOVEIN+003                     7  2669  M Q82 Z54           28
345   3 15           MCW   MDTP,PUT+013                       7  2676  M Q82 Z90           28
346   3 16           MCW   TPAD,WRITE+006                     7  2683  M L34 X73           28
347   3 17           MCW   TPAD,READ+010                      7  2690  M L34 X98           29
348   3 18           MCW   TPAD,LIMAD=3                      7  2697  M L34 Q94           29
349   3 19           MA    +13,LIMAD                         7  2704  = Q96 Q94           29
350   3 20           MCW   LIMAD,LGTCK+6                     7  2711  M Q94 K29           29
351   3 21   SETBMP  MCW   BUMP,BUMPOP                       7  2718  M W81 L27           29
352   3 22           LCA   GRPMRK,ENDOFC                     7  2725  L Q66 Z24           30
353   3 23   *
354   3 24   * WRITE PASS C CHECKPOINT ON 6
355   3 25   *
356   3 26           CS    80                                4  2732  / 080               30
357   3 27           SW    CARD+001,CARD+006                 7  2736  , 001 006           30
358   3 28           SW    CARD+017,CARD+024                 7  2743  , 017 024           30
359   3 29           SW    CARD+028,CARD+035                 7  2750  , 028 035           30
360   3 30           SW    CARD+057,CARD+062                 7  2757  , 057 062           30
361   3 31           SW    CARD+068,CARD+071                 7  2764  , 068 071           31
362   3 32           WTW   COUTPT,1                          8  2771  L (U6 001 W         31
363   3 33           NOP   XXXX                              4  2779  N 000               31
364   3 34           BER   TPERR                             5  2783  B -04 L             31
365   3 35           CW    ENDOFC,GRPMRK                     7  2788  ) Z24 Q66           31
366   3 36           C     TOTLAB,TABLSZ                     7  2795  C L93 L18           31
367   3 37           MCW   TABLSZ,SERCHS                     7  2802  M L18 L99           32
368   3 38           S     TOTLAB                            4  2809  S L93               32
369   3 39           BE    CLRTAB                            5  2813  B Y13 S             32
370   3 40           BH    CLRTAB                            5  2818  B Y13 U             32
371   3 41           MCW   +0009,SERCHS                      7  2823  M R00 L99           32
372   3 42           B     CLRTAB                            4  2830  B Y13               32
373   3 43   BLKG8K  DCW   '400'                             3  2836                      32
374   3 44   TBSZ8K  DCW   +0510                            4  2840                      33
375   3 45   TBLM8K  DSA   5100                              3  2843  /0≠                 33
376   3 46   TPAD8K  DSA   7598                              3  2846  E9Y                 33
377   3 47   MDTP8K  DSA   7597+X3                          3  2849  EIX                 33
378   3 48   BLKG12  DCW   '800'                             3  2852                      33
379   3 49   TBSZ12  DCW   +0870                            4  2856                      33
380   3 50   TBLM12  DSA   8700                              3  2859  70-                 33
381   3 51   TPAD12  DSA   11198                             3  2862  A9Q                 34
382   3 52   MDTP12  DSA   11197+X3                         3  2865  AIP                 34
383   3 53   GRPMRK  DC    ' '                               1  2866                      34
384   3 54           LTORG *                                      2867
                     DCW   '00'                              2  2868        LIT       34
                           +0150                             4  2872        LIT       34
                           '0015'                            4  2876        LIT       34
      305  KEEP1           =01                               1  2877        AREA      34
                           +3                                1  2878        LIT       34
                           '='                               1  2879        LIT       35
      322  MDTP            =03                               3  2882        AREA      35
                           +72                               2  2884        LIT       35
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					+400		3	2887		LIT	35
					+40		2	2889		LIT	35
					+36		2	2891		LIT	35
		348	LIMAD		=03		3	2894		AREA	35
					+13		2	2896		LIT	36
					+0009		4	2900		LIT	36
385	3	55	ENDINT	DCW	' '		1	2901			36
386	3	56		XFR	LIBRN				B 000		37

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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
387   3 57           JOB   1401 AUTOCODER-PASS 5 MAIN LINE -VERSION 3
388   3 58   *
389   3 59   * PASS C-LOAD SYMBOL TABLE + SET ADDRESSES
390   3 60   *
391   3 61   ZONE    EQU   113                                             0113
392   3 62   113     DCW   '2SKB'                                    4     0113                        40
393   3 63   ZONE2   EQU   109                                             0109
394   3 64   109     DCW   '2SKB'                                    4     0109                        41
395   3 65   ABBIT   EQU   ZONE                                            0113
396   3 66   BBIT    EQU   ZONE-001                                        0112
397   3 67   ABIT    EQU   ZONE-002                                        0111
398   3 68   NOBIT   EQU   ZONE-003                                        0110
399   3 69   XR1     EQU   89                                              0089
400   3 70   89      DCW   '000'                                     3     0089                        42
401   3 71   XR2     EQU   94                                              0094
402   3 72   94      DCW   '000'                                     3     0094                        43
403   3 73   XR3     EQU   99                                              0099
404   3 74   99      DCW   '000'                                     3     0099                        44
405   3 75           ORG   ZONE+001                                              0114
406   3 76   *
407   3 77   * DETERMINE RECORD TYPE
408   3 78   *
409   3 79   ANAL    BM    PUT,CARD+005                              8     0114  V Z77 005 K           45
410   3 80           BCE   PUT,TYPE,(                                8     0122  B Z77 075 (           45
411   3 81           BCE   INSTR,TYPE,                               8     0130  B 219 075             45
412   3 82           MN    TYPE,XR2                                  7     0138  D 075 094             45
413   3 83           BCE   DA,XR2,0                                  8     0145  B 871 094 0           45
414   3 84           MCW   '0',INDFTR                                7     0153  M Y92 Y69             46
415   3 85           MCW   '0',DASW                                  7     0160  M Y92 Y68             46
416   3 86           A     XR2                                       4     0167  A 094                 46
417   3 87           A     XR2                                       4     0171  A 094                 46
418   3 88           B     *+001+X2                                  4     0175  B 1P9                 46
419   3 89           NOP   XXXX                                      4     0179  N 000                 46
420   3 90           B     CONST                                     4     0183  B 260                 46
421   3 91           B     CONST                                     4     0187  B 260                 47
422   3 92           B     EXEND                                     4     0191  B 973                 47
423   3 93           B     SFX                                       4     0195  B 992                 47
424   3 94           B     PUT                                       4     0199  B Z77                 47
425   3 95           B     ORG                                       4     0203  B 376                 47
426   3 96           B     DS                                        4     0207  B 295                 47
427   3 97           B     PUT                                       4     0211  B Z77                 47
428   3 98           B     PUT                                       4     0215  B Z77                 48
429   3 99   *
430   4 00   * PROCESS INSTRUCTIONS
431   4 01   *
432   4 02   INSTR   MCW   '0',INDFTR                                7     0219  M Y92 Y69             48
433   4 03           B     PRCADD                                    4     0226  B ‡03                 48
434   4 04           B     PROCLB                                    4     0230  B /09                 48
435   4 05           BWZ   PUT,STADDR,2                              8     0234  V Z77 003 2           48
436   4 06           A     COUNT,NOWCTR                              7     0242  A 007 Y48             48
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
437   4 07           S     '1',NOWCTR                          7  0249  S Y93 Y48           49
438   4 08           B     PUT                                 4  0256  B Z77               49
439   4 09   *
440   4 10   * PROCESS CONSTANTS + DSA
441   4 11   *
442   4 12   CONST  BCE   PRCAST,AOPHO,*                      8  0260  B 283 017 *         49
443   4 13          MCW   '1',ACTSW                           7  0268  M Y93 Y67           49
444   4 14          B     PROCLB                              4  0275  B /09               49
445   4 15          B     PUT                                 4  0279  B Z77               49
446   4 16   *
447   4 17   * CONSTANTS WITH ASTERISK ADDRESS
448   4 18   *
449   4 19   PRCAST B     PRCADD                              4  0283  B ǂ03               49
450   4 20          B     PROCLB                              4  0287  B /09               50
451   4 21          B     PUT                                 4  0291  B Z77               50
452   4 22   *
453   4 23   * PROCESS DS + EQUATES
454   4 24   *
455   4 25   DS     BCE   PROCTU,AOPHO,(                      8  0295  B 361 017 (         50
456   4 26          A     AINDEX,INDFTR                       7  0303  A 027 Y69           50
457   4 27          BCE   CONST,AOPHO,*                       8  0310  B 260 017 *         50
458   4 28          BWZ   CONST,AOPHO,2                       8  0318  V 260 017 2         50
459   4 29          BWZ   *+005,STAOP,2                       8  0326  V 338 001 2         51
460   4 30          B     CONST                               4  0334  B 260               51
461   4 31   *
462   4 32   * EQUATE
463   4 33   *
464   4 34          B     SETAOP                              4  0338  B U35               51
465   4 35          MCW   DSAPUT,LABRTN+003                   7  0342  M Y72 S97           51
466   4 36          BWZ   UNPROC,STAOP,2                      8  0349  V /81 001 2         51
467   4 37          B     CONST                               4  0357  B 260               51
468   4 38   *
469   4 39   * DS OF INPUT DEVICE
470   4 40   *
471   4 41   PROCTU MCW   AOPER-003,LABADD-001                7  0361  M 019 060           52
472   4 42          MCW   '0'                                 4  0368  M Y92               52
473   4 43          B     CONST                               4  0372  B 260               52
474   4 44   *
475   4 45   * PROCESS ORIGIN + LITERAL ORIGIN
476   4 46   *
477   4 47   ORG    BWZ   SETHGH,CARD+033,B                   8  0376  V 405 033 B         52
478   4 48          ZA    LABADD,ORGADD                       7  0384  + 061 032           52
479   4 49          A     '1',ORGADD                          7  0391  A Y93 032           52
480   4 50          MZ    ABBIT,CARD+033                      7  0398  Y 113 033           53
481   4 51   SETHGH BCE   ORGSAV,MAXSW,1                      8  0405  B 432 Y60 1         53
482   4 52          C     NOWCTR,HGHCTR                       7  0413  C Y48 Y58           53
483   4 53          BH    ORGSAV                              5  0420  B 432 U             53
484   4 54          ZA    NOWCTR,HGHCTR                       7  0425  + Y48 Y58           53
485   4 55   *
486   4 56   * PROCESS SAVE COUNTER OF ORIGIN
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
487   4 57    *
488   4 58    ORGSAV BCE    AOPOR,LBLHO,                        8  0432  B 536 008          54
489   4 59           MCW    '005',XR1                           7  0440  M Y96 089          54
490   4 60           MCW    +AOPOR,LABRTN+003                   7  0447  M Y99 S97          54
491   4 61           BWZ    *+005,STLABL,2                      8  0454  V 466 002 2        54
492   4 62           B      AOPOR                               4  0462  B 536              54
493   4 63           BCE    STRSAV,SUPADD,                      8  0466  B 502 066          55
494   4 64    BTOLAB B      DOLABL                              4  0474  B T58              55
495   4 65           B      SEARCH                              4  0478  B W29              55
496   4 66           BCE    STORE,DBLSW,1                       8  0482  B S69 Y64 1        55
497   4 67           BCE    STORE,SPCSW,0                       8  0490  B S69 Y63 0        55
498   4 68           B      UNPROC                              4  0498  B /81              55
499   4 69    STRSAV BCE    UNPROC,ADDRSW,1                     8  0502  B /81 Y59 1        56
500   4 70           BCE    UNPROC,LITRSW,1                     8  0510  B /81 Y61 1        56
501   4 71           MCW    NOWCTR,SUPADD                       7  0518  M Y48 066          56
502   4 72           A      '1',SUPADD                          7  0525  A Y93 066          56
503   4 73           B      BTOLAB                              4  0532  B 474              56
504   4 74    *
505   4 75    * PROCESS A OPERAND OF ORIGIN
506   4 76    *
507   4 77    AOPOR  BWZ    *+005,STAOP,2                       8  0536  V 548 001 2        57
508   4 78           B      ACTUAL                              4  0544  B 761              57
509   4 79           BCE    ASTRSK,AOPHC,*                      8  0548  B 708 017 *        57
510   4 80           MCW    '0',LITRSW                          7  0556  M Y92 Y61          57
511   4 81           S      NOWCTR                              4  0563  S Y48              57
512   4 82           BCE    BLKAOP,AOPHC,                       8  0567  B 735 017          57
513   4 83    *
514   4 84    * SYMBOLIC ORIGIN
515   4 85    *
516   4 86           MCW    '0',ORGSW                           7  0575  M Y92 Y66          58
517   4 87           S      XR1+001                             4  0582  S 090              58
518   4 88           B      SETAOP                              4  0586  B U35              58
519   4 89           BCE    SETORG,ORGSW,1                      8  0590  B 609 Y66 1        58
520   4 90    SETSWS MCW    '11',MAXSW                          7  0598  M Z01 Y60          58
521   4 91           B      SCNTB+7                             4  0605  B 813              58
522   4 92    SETORG MCW    LABADD,ORGCTR                       7  0609  M 061 Y53          59
523   4 93    RSTSWA MCW    '0',ADDRSW                          7  0616  M Y92 Y59          59
524   4 94           BCE    *+005,AOPADJ-002,X                  8  0623  B 635 024 X        59
525   4 95           B      AOPOUT                              4  0631  B 669              59
526   4 96    *
527   4 97    * ADJUSTMENT OF X00
528   4 98    *
529   4 99           BCE    NXTCNT,AOPHC,*                      8  0635  B 655 017 *        59
530   5 00           C      ORGCTR,+00                          7  0643  C Y53 Z03          60
531   5 01           BE     AOPOUT                              5  0650  B 669 S            60
532   5 02    NXTCNT MCW    +00,ORGCTR                          7  0655  M Z03 Y53          60
533   5 03           A      '1',ORGCTR-002                      7  0662  A Y93 Y51          60
534   5 04    AOPOUT A      ORGCTR,ORGADD                       7  0669  A Y53 032          60
535   5 05           ZA     ORGCTR,LABADD                       7  0676  + Y53 061          61
536   5 06           ZA     ORGADD,NOWCTR                       7  0683  + 032 Y48          61
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
537   5 07           S     '1',NOWCTR                          7  0690  S Y93 Y48           61
538   5 08           MZ    ABBIT,STAOP                         7  0697  Y 113 001           61
539   5 09           B     PUT                                 4  0704  B Z77               61
540   5 10   *
541   5 11   * ORIGIN ASTERISK
542   5 12   *
543   5 13   ASTRSK BCE   PUT,ADDRSW,1                        8  0708  B Z77 Y59 1         62
544   5 14          BCE   SETSWS,LITRSW,1                     8  0716  B 598 Y61 1         62
545   5 15          MCW   NOWCTR,ORGCTR                       7  0724  M Y48 Y53           62
546   5 16          B     RSTSWA                              4  0731  B 616               62
547   5 17   *
548   5 18   * ORIGIN MAXIMUM
549   5 19   *
550   5 20   BLKAOP BCE   SETSWS,MAXSW,1                     8  0735  B 598 Y60 1         62
551   5 21          MCW   HGHCTR,ORGCTR                       7  0743  M Y58 Y53           63
552   5 22          A     '1',ORGCTR                          7  0750  A Y93 Y53           63
553   5 23          B     RSTSWA                              4  0757  B 616               63
554   5 24   *
555   5 25   * ORIGIN ACTUAL OR PROCESSED
556   5 26   *
557   5 27   ACTUAL ZA    ORGADD,NOWCTR                       7  0761  + 032 Y48           63
558   5 28          S     '1',NOWCTR                          7  0768  S Y93 Y48           63
559   5 29          BCE   TSTXOO,AOPHO,*                      8  0775  B 821 017 *         64
560   5 30          MCW   '0',LITRSW                          7  0783  M Y92 Y61           64
561   5 31          BWZ   SCNTB,AOPHO,2                       8  0790  V 806 017 2         64
562   5 32          BWZ   SETORG,STAOP,K                      8  0798  V 609 001 K         64
563   5 33   SCNTB  MCW   '0',ADDRSW                         7  0806  M Y92 Y59           64
564   5 34          S     ORGCTR                              4  0813  S Y53               65
565   5 35          B     PUT                                 4  0817  B Z77               65
566   5 36   TSTXOO BCE   PUT,AOPADJ-002,X                   8  0821  B Z77 024 X         65
567   5 37          BWZ   PUT,CARD+034,B                     8  0829  V Z77 034 B         65
568   5 38          A     ORGCTR,ORGADD                       7  0837  A Y53 032           65
569   5 39          BCE   PUT,ADDRSW,1                       8  0844  B Z77 Y59 1         65
570   5 40          BCE   PUT,LITRSW,1                       8  0852  B Z77 Y61 1         66
571   5 41          MZ    ABBIT,CARD+034                      7  0860  Y 113 034           66
572   5 42          B     ACTUAL                              4  0867  B 761               66
573   5 43   *
574   5 44   * PROCESS DA STATEMENTS
575   5 45   *
576   5 46   DA     BCE   ORIGDA,TYPE,0                       8  0871  B 926 075 0         66
577   5 47          BCE   TSTRPT,ACTSW,1                     8  0879  B 910 Y67 1         66
578   5 48   BTOADD C     LABADD,SUPADD                       7  0887  C 061 066           67
579   5 49          BL    *+8                                 5  0894  B 906 T             67
580   5 50          MCW   '005',XR3                           7  0899  M Y96 099           67
581   5 51          B     PRCADD                              4  0906  B ‡03               67
582   5 52   TSTRPT BCE   PUT,TYPE,‡                         8  0910  B Z77 075 ‡         67
583   5 53          B     PROCLB                              4  0918  B /09               67
584   5 54          B     PUT                                 4  0922  B Z77               67
585   5 55   *
586   5 56   * DA HEADER
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SEQ  PG LIN  LABEL   OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
587   5 57    *
588   5 58    ORIGDA MCW    '0',INDFTR                    7  0926  M Y92 Y69           68
589   5 59           A      AINDEX,INDFTR                 7  0933  A 027 Y69           68
590   5 60           MCW    '1',DASW                      7  0940  M Y93 Y68           68
591   5 61           MCW    '0',ACTSW                     7  0947  M Y92 Y67           68
592   5 62           BCE    BTOADD,AOPHC,*                8  0954  B 887 017 *         68
593   5 63           MCW    '1',ACTSW                     7  0962  M Y93 Y67           69
594   5 64           B      TSTRPT                        4  0969  B 910               69
595   5 65    *
596   5 66    * PROCESS EX + END
597   5 67    *
598   5 68    EXEND  BWZ    PUT,TYPE,B                    8  0973  V Z77 075 B         69
599   5 69           MCW    'B',BRANCH                    7  0981  M Z04 X84           69
600   5 70           B      WRITE                         4  0988  B X67               69
601   5 71    *
602   5 72    * PROCESS SUFFIX
603   5 73    *
604   5 74    SFX    MCW    AOPHO,SFXCTR                  7  0992  M 017 L23           69
605   5 75           B      PUT                           4  0999  B Z77               70
606   5 76    *
607   5 77    * PROCESS ADDRESSES
608   5 78    *
609   5 79    PRCADD SBR    ADDRTN+003                    4  1003  H ≠89               70
610   5 80           MCW    '0',ACTSW                     7  1007  M Y92 Y67           70
611   5 81           BWZ    LITTST,STLABL,K               8  1014  V ≠90 002 K         70
612   5 82    TSTADD BWZ    ADDRTN,STADDR,B               8  1022  V ≠86 003 B         70
613   5 83           BCE    ADDRTN,ADDRSW,1               8  1030  B ≠86 Y59 1         70
614   5 84           A      ORGCTR,LABADD                 7  1038  A Y53 061           71
615   5 85           A      ORGCTR,SUPADD                 7  1045  A Y53 066           71
616   5 86           C      NOWCTR,LABADD+X3              7  1052  C Y48 0F1           71
617   5 87           BL     *+008                         5  1059  B ≠71 T             71
618   5 88           ZA     LABADD+X3,NOWCTR              7  1064  + 0F1 Y48           71
619   5 89           BCE    ADDRTN,LITRSW,1               8  1071  B ≠86 Y61 1         72
620   5 90           MZ     ABBIT,STADDR                  7  1079  Y 113 003           72
621   5 91    ADDRTN B      XXXX                          4  1086  B 000               72
622   5 92    LITTST MCW    DSAPUT,LABRTN+003             7  1090  M Y72 S97           72
623   5 93           BCE    LITRAL,TYPE,/                 8  1097  B T25 075 /         72
624   5 94           B      TSTADD                        4  1105  B ≠22               72
625   5 95    *
626   5 96    * PROCESS LABEL
627   5 97    *
628   5 98    PROCLB SBR    LABRTN+003                    4  1109  H S97               73
629   5 99           BWZ    *+005,STLABL,2                8  1113  V /25 002 2         73
630   6 00           B      LABRTN                        4  1121  B S94               73
631   6 01           BCE    MRKPRC,LBLHC,                 8  1125  B S80 008           73
632   6 02           BCE    BTOLBL,ACTSW,1                8  1133  B /57 Y67 1         73
633   6 03           BCE    TSTDBL,LITRSW,1               8  1141  B S07 Y61 1         74
634   6 04           BCE    TSTDBL,ADDRSW,1               8  1149  B S07 Y59 1         74
635   6 05    BTOLBL B      DOLABL                        4  1157  B T58               74
636   6 06           B      SEARCH                        4  1161  B W29               74
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
637   6 07           BCE   DBLDEF,DBLSW,1                      8  1165  B S98 Y64 1          74
638   6 08           BCE   STORE,SPCSW,0                       8  1173  B S69 Y63 0          75
639   6 09   *
640   6 10   * UNPROCESSED LABEL
641   6 11   *
642   6 12   UNPROC MCW   '1',UNPRSW                          7  1181  M Y93 L94            75
643   6 13          A     '1',TOTLAB                          7  1188  A Y93 L93            75
644   6 14          BCE   SETSWL,TYPE,/                       8  1195  B S50 075 /          75
645   6 15          B     LABRTN                              4  1203  B S94                75
646   6 16   *
647   6 17   * SEARCH TABLE FOR DBL DEF LITERAL
648   6 18   *
649   6 19   TSTDBL BCE   UNPROC,LBLHC,$                      8  1207  B /81 008 $          76
650   6 20          B     DOLABL                              4  1215  B T58                76
651   6 21          B     SEARCH                              4  1219  B W29                76
652   6 22          BCE   UNPROC,DBLSW,0                     8  1223  B /81 Y64 0          76
653   6 23          BCE   UNPROC,ADDHO,                       8  1231  B /81 M-0            76
654   6 24          MZ    BBIT,STLABL                         7  1239  Y 112 002            76
655   6 25          B     LABRTN                              4  1246  B S94                77
656   6 26   *
657   6 27   * UNPROCESSED LABEL OF LITERAL
658   6 28   *
659   6 29   SETSWL BCE   LABRTN,LBLHC,$                      8  1250  B S94 008 $          77
660   6 30          MCW   '11',LITRSW                         7  1258  M Z01 Y61            77
661   6 31          B     LABRTN                              4  1265  B S94                77
662   6 32   *
663   6 33   * STORE LABEL IN TABLE
664   6 34   *
665   6 35   STORE  LCA   FNCTN,SYMBOL                        7  1269  L L08 M-9            77
666   6 36          LCA   HOLDAD                              4  1276  L Z12                77
667   6 37   MRKPRC MZ    ABBIT,STLABL                        7  1280  Y 113 002            78
668   6 38          MCW   '1',PROCSW                          7  1287  M Y93 L95            78
669   6 39   LABRTN B     XXXX                                4  1294  B 000                78
670   6 40   *
671   6 41   * DOUBLY DEFINED LABEL
672   6 42   *
673   6 43   DBLDEF BCE   STORE,ADDHO,                        8  1298  B S69 M-0            78
674   6 44          MZ    BBIT,STLABL                         7  1306  Y 112 002            78
675   6 45          BCE   LITRAL,TYPE,/                       8  1313  B T25 075 /          79
676   6 46          B     LABRTN                              4  1321  B S94                79
677   6 47   *
678   6 48   * DOUBLY DEFINED LITERAL
679   6 49   *
680   6 50   LITRAL BWZ   LABRTN,STBOP,B                      8  1325  V S94 004 B          79
681   6 51          MCW   '(',TYPE                            7  1333  M Z05 075            79
682   6 52          S     COUNT,ORGCTR                        7  1340  S 007 Y53            79
683   6 53          S     COUNT,NOWCTR                        7  1347  S 007 Y48            80
684   6 54          B     LABRTN                              4  1354  B S94                80
685   6 55   *
686   6 56   * SET UP LABEL + ADDRESS
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SEQ  PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
687   6 57   * FOR TABLE SEARCH
688   6 58   *
689   6 59   DOLABL SBR   DOLABR+003                            4  1358  H U34             80
690   6 60          MCW   LABEL,FNCTN                          7  1362  M 013 L08         80
691   6 61          MCW   CNVLAB,ARGUMT=003                    7  1369  M 056 Z08         80
692   6 62   SETFUN BCE   *+005,FNCTN,                         8  1376  B T88 L08         80
693   6 63          B     *+008                                4  1384  B T95             81
694   6 64          MCW   SFXCTR,FNCTN                         7  1388  M L23 L08         81
695   6 65          MCW   LABADD+X1,HOLDAD=004                 7  1395  M 0W1 Z12         81
696   6 66          BCE   DOINDX,HOADD+X1,0                    8  1402  B U17 0V7 0       81
697   6 67          MZ    ABIT,HOLDAD-003                      7  1410  Y 111 Z09         81
698   6 68   DOINDX MN    INDFTR,*+004                         7  1417  D Y69 U27         82
699   6 69          MZ    ZONE,HOLDAD-001                      7  1424  Y 113 Z11         82
700   6 70   DOLABR B     XXXX                                 4  1431  B 000             82
701   6 71   *
702   6 72   * PROCESS A OPERAND OF ORIGIN + EQUATE
703   6 73   *
704   6 74   SETAOP SBR   AOPRTN+003                           4  1435  H U87             82
705   6 75          MCW   +BRSRH,DOLABR+003                    7  1439  M Z15 U34         82
706   6 76          MCW   AOPER,FNCTN                          7  1446  M 022 L08         82
707   6 77          MCW   AOP,ARGUMT                           7  1453  M 070 Z08         83
708   6 78          B     SETFUN                               4  1460  B T76             83
709   6 79   BRSRH  B     SEARCH                               4  1464  B W29             83
710   6 80          BCE   ADDBNK,DBLSW,1                       8  1468  B V03 Y64 1       83
711   6 81          BCE   STRBNK,SPCSW,0                       8  1476  B U88 Y63 0       83
712   6 82   AOPRTN B     XXXX                                 4  1484  B 000             83
713   6 83   *
714   6 84   * LABEL NOT IN TABLE, STORE
715   6 85   * WITH BLANK ADDRESS
716   6 86   *
717   6 87   STRBNK LCA   FNCTN,SYMBOL                         7  1488  L L08 M-9         84
718   6 88          LCA   '  '                                  4  1495  L Z19             84
719   6 89          B     AOPRTN                               4  1499  B U84             84
720   6 90   *
721   6 91   * RETRIEVE VALUE FROM TABLE
722   6 92   *
723   6 93   ADDBNK BCE   AOPRTN,ADDHC,                        8  1503  B U84 M-0         84
724   6 94          MCW   '1',ORGSW                            7  1511  M Y93 Y66         84
725   6 95          BWZ   *+5,LBLREF,2                         8  1518  V V30 M-1 2       84
726   6 96          B     *+8                                  4  1526  B V37             85
727   6 97          MZ    ABIT,LBLREF                          7  1530  Y 111 M-1         85
728   6 98          MCW   ADDLO,LABADD                         7  1537  M M-3 061         85
729   6 99          BCE   AOPROC,LABADD-3,(                   8  1544  B W18 058 (       85
730   7 00          BWZ   *+008,LABADD-003,2                   8  1552  V V67 058 2       85
731   7 01          MCW   '1',HOADD                            7  1560  M Y93 057         86
732   7 02          BCE   AOPRTN,TYPE,0                       8  1567  B U84 075 0       86
733   7 03   *
734   7 04   * ADD CHARACTER ADJUSTMENT FOR EQUATE
735   7 05   *
736   7 06          MZ    LABADD-001,SAVEZN=001                7  1575  Y 060 Z20         86
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
737   7 07           A     AOPADJ,LABADD                       7  1582  A 026 061           86
738   7 08           MZ    SAVEZN,LABADD-001                   7  1589  Y Z20 060           86
739   7 09           BCE   AOPROC,AINDEX,                      8  1596  B W18 027           87
740   7 10           MN    INDFTR,*+004                        7  1604  D Y69 W14           87
741   7 11           MZ    ZONE,LABADD-001                     7  1611  Y 113 060           87
742   7 12   AOPROC  MZ    ABBIT,STAOP                         7  1618  Y 113 001           87
743   7 13           B     AOPRTN                              4  1625  B U84               87
744   7 14   *
745   7 15   * TABLE SEARCH
746   7 16   *
747   7 17   SEARCH  SBR   RETURN+003                          4  1629  H X66               87
748   7 18           MCW   DBLSW+001,DBLSW                     7  1633  M Y65 Y64           88
749   7 19           MCW   TABMAX,MAXADD                      7  1640  M L11 L14           88
750   7 20           MCW   ARGUMT,XR2                          7  1647  M Z08 094           88
751   7 21           MCW   SERCHS,MAXSER                       7  1654  M L99 L22           88
752   7 22   TBLSRH  C     FNCTN,SYMBOL                        7  1661  C L08 M-9           88
753   7 23           BE    SETDBL                              5  1668  B X45 S             89
754   7 24           BCE   RETURN,SYMHC,                      8  1673  B X63 M-4           89
755   7 25   BUMP    A     '010',XR2                          7  1681  A Z23 094           89
756   7 26           S     '1',MAXSER                          7  1688  S Y93 L22           89
757   7 27           BM    SETSPC,MAXSER                       8  1695  V X56 L22 K         89
758   7 28           C     XR2,MAXADD                          7  1703  C 094 L14           90
759   7 29           BU    TBLSRH                              5  1710  B W61 /             90
760   7 30           BCE   SETSPC,WRAPSW,1                    8  1715  B X56 Y62 1         90
761   7 31           MCW   '1',WRAPSW                         7  1723  M Y93 Y62           90
762   7 32           MCW   ARGUMT,MAXADD                      7  1730  M Z08 L14           90
763   7 33           S     XR2+001                             4  1737  S 095               90
764   7 34           B     TBLSRH                              4  1741  B W61               91
765   7 35   *
766   7 36   * LABEL IN TABLE
767   7 37   *
768   7 38   SETDBL  MCW   '1',DBLSW                           7  1745  M Y93 Y64           91
769   7 39           B     RETURN                              4  1752  B X63               91
770   7 40   *
771   7 41   * SPACE AVAILABLE
772   7 42   *
773   7 43   SETSPC  MCW   '1',SPCSW                           7  1756  M Y93 Y63           91
774   7 44   RETURN  B     XXXX                                4  1763  B 000               91
775   7 45   *
776   7 46   * INPUT/OUTPUT - PASS C
777   7 47   *
778   7 48   WRITE   WT    COUTPT,TPAREA                       8  1767  M (U6 I18 W         91
779   7 49           NOP   XXXX                                4  1775  N 000               91
780   7 50           BER   TPERR                               5  1779  B -04 L             92
781   7 51   BRANCH  NOP   FINAL                               4  1784  N Y73               92
782   7 52   READ    S     HOLDA                               4  1788  S L31               92
783   7 53           RT    CINPUT,TPAREA                       8  1792  M (U5 I18 R         92
784   7 54           B     CHKLGT                              4  1800  B K08               92
785   7 55           BER   TPERR                               5  1804  B -04 L             92
786   7 56           B     NXTREC                              4  1809  B Z37               92
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SEQ PG LIN  LABEL   OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
787  7 57   *
788  7 58   * CLEAR TABLE AREA
789  7 59   *
790  7 60   CLRTAB MCW   CLRMAX,CLEAR+003             7  1813  M K99 Y23          93
791  7 61   CLEAR  CS    XXXX                        4  1820  / 000              93
792  7 62          SBR   CLEAR+003                   4  1824  H Y23              93
793  7 63          C     CLEAR+003,CLRMIN            7  1828  C Y23 L02          93
794  7 64          BU    CLEAR                       5  1835  B Y20 /            93
795  7 65          B     READ                        4  1840  B X88              93
796  7 66   NOWCTR DCW   +00000                      5  1848                     93
797  7 67   ORGCTR DCW   +00000                      5  1853                     94
798  7 68   HGHCTR DCW   +00000                      5  1858                     94
799  7 69   ADDRSW DCW   '0'                         1  1859                     94
800  7 70   MAXSW  DC    '0'                         1  1860                     94
801  7 71   LITRSW DC    '0'                         1  1861                     94
802  7 72   WRAPSW DCW   '0'                         1  1862                     94
803  7 73   SPCSW  DC    '0'                         1  1863                     94
804  7 74   DBLSW  DC    '0'                         1  1864                     94
805  7 75          DC    '0'                         1  1865                     94
806  7 76   ORGSW  DCW   '0'                         1  1866                     94
807  7 77   ACTSW  DCW   '0'                         1  1867                     94
808  7 78   DASW   DCW   '0'                         1  1868                     94
809  7 79   INDFTR DCW   '0'                         1  1869                     95
810  7 80   DSAPUT DSA   PUT                         3  1872  Z77                95
811  7 81   *
812  7 82   * END OF PASS C, GET PASS D
813  7 83   *
814  7 84   FINAL  WTM   COUTPT                      5  1873  U (U6 M            95
815  7 85          RWD   CINPUT                      5  1878  U (U5 R            95
816  7 86          RWD   COUTPT                      5  1883  U (U6 R            95
817  7 87          B     RDPSSD                      4  1888  B K47              95
818  7 88          LTORG *                                1892
                   DCW   '0'                         1  1892           LIT     95
                         '1'                         1  1893           LIT     96
                         '005'                       3  1896           LIT     96
       490               +AOPOR                      3  1899  536      ADCON   96
                         '11'                        2  1901           LIT     96
                         +00                         2  1903           LIT     96
                         'B'                         1  1904           LIT     96
                         '('                         1  1905           LIT     96
       691   ARGUMT      =03                         3  1908           AREA    97
       695   HOLDAD      =04                         4  1912           AREA    97
       705               +BRSRH                      3  1915  U64      ADCON   97
                         '    '                      4  1919           LIT     97
       736   SAVEZN      =01                         1  1920           AREA    97
                         '010'                       3  1923           LIT     97
819  7 89   ENDOFC DCW   ' '                         1  1924                     97
820  7 90          XFR   LIBRN                             B 000              98
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
821  7 91          JOB   1401 AUTOCODER-PASS 6-PROCESS OPERANDS -VERSION 3
822  7 92   *
823  7 93   91     DCW   '00000'                                        5  0091                    101
824  7 94   96     DCW   '00000'                                        5  0096                    101
825  7 95   101    DCW   '00000'                                        5  0101                    101
826  7 96   109    DCW   '2SKB'                                         4  0109                    102
827  7 97   113    DCW   '2SKB'                                         4  0113                    102
828  7 98          ORG   ZONE+001                                            0114
829  7 99   *
830  8 00   * DETERMINE RECORD TYPE
831  8 01   *
832  8 02          MCW   '0',ASTRSW                                     7  0114  M U32 U18          102
833  8 03          BM    PUT,CARD+005                                   8  0121  V Z77 005 K        102
834  8 04          BCE   PUT,TYPE,(                                     8  0129  B Z77 075 (        102
835  8 05          MN    TYPE,TYPEA=001                                 7  0137  D 075 U33          102
836  8 06          BCE   PRINST,TYPEA,                                  8  0144  B 196 U33          103
837  8 07          BCE   PRDSA,TYPEA,2                                  8  0152  B 318 U33 2        103
838  8 08          BCE   PROEND,TYPEA,3                                 8  0160  B 446 U33 3        103
839  8 09          BCE   PROSFX,TYPEA,4                                 8  0168  B S79 U33 4        103
840  8 10          BCE   ORGEQU,TYPEA,6                                 8  0176  B 489 U33 6        104
841  8 11          BCE   ORGEQU,TYPEA,7                                 8  0184  B 489 U33 7        104
842  8 12          B     PUT                                            4  0192  B Z77              104
843  8 13   *
844  8 14   * PROCESS INSTRUCTIONS
845  8 15   *
846  8 16   PRINST BWZ   SETAST,STADDR,2                                8  0196  V 208 003 2        104
847  8 17          B     LOADDR                                         4  0204  B 215              104
848  8 18   SETAST MCW   '1',ASTRSW                                     7  0208  M U34 U18          104
849  8 19   *
850  8 20   * SET ASTERISK ADDRESS
851  8 21   *
852  8 22   LOADDR ZA    LABADD,ASTADD=005                              7  0215  + 061 U39          105
853  8 23          A     COUNT,ASTADD                                   7  0222  A 007 U39          105
854  8 24          S     '1',ASTADD                                     7  0229  S U34 U39          105
855  8 25   *
856  8 26   * TEST FOR A OPERAND
857  8 27   *
858  8 28          BCE   PUT,COUNT,1                                    8  0236  B Z77 007 1        105
859  8 29          BCE   PUT,COUNT,2                                    8  0244  B Z77 007 2        105
860  8 30          BWZ   *+005,STAOP,2                                  8  0252  V 264 001 2        106
861  8 31          B     SEEBOP                                         4  0260  B 268              106
862  8 32          B     PROCOP                                         4  0264  B 578              106
863  8 33   *
864  8 34   * TEST FOR B OPERAND
865  8 35   *
866  8 36   SEEBOP BCE   PUT,COUNT,4                                    8  0268  B Z77 007 4        106
867  8 37          BCE   PUT,COUNT,5                                    8  0276  B Z77 007 5        106
868  8 38          BWZ   *+005,STBOP,2                                  8  0284  V 296 004 2        107
869  8 39          B     PUT                                            4  0292  B Z77              107
870  8 40          MCW   '003',XR3                                      7  0296  M U42 099          107
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
871   8 41           MCW   '011',XR1                           7  0303  M U45 089          107
872   8 42           B     PROCOP                              4  0310  B 578              107
873   8 43           B     PUT                                 4  0314  B Z77              107
874   8 44   *
875   8 45   * PROCESS DSA AND ADCON
876   8 46   *
877   8 47   PRDSA   BWZ   *+005,STADDR,2                      8  0318  V 330 003 2        108
878   8 48           B     TSTPRC                              4  0326  B 434              108
879   8 49           MCW   '1',ASTRSW                          7  0330  M U34 U18          108
880   8 50   SETDSA  ZA    LABADD,ASTADD                       7  0337  + 061 U39          108
881   8 51           MCW   '003',XR3                           7  0344  M U42 099          108
882   8 52           MCW   '011',XR1                           7  0351  M U45 089          109
883   8 53           BWZ   *+005,STBOP,2                       8  0358  V 370 004 2        109
884   8 54           B     PUT                                 4  0366  B Z77              109
885   8 55           B     PROCOP                              4  0370  B 578              109
886   8 56           BWZ   PUT,STBOP,2                        8  0374  V Z77 004 2        109
887   8 57           BCE   CMP16K,AINDEX,-                     8  0382  B 409 027 -        109
888   8 58   COMPRS  MCW   +PUT,OPRTN+3                        7  0390  M U48 /78          110
889   8 59           BCE   PUT,AOP+1,(                        8  0397  B Z77 071 (        110
890   8 60           B     CNVT03                              4  0405  B ‡94              110
891   8 61   *
892   8 62   * GET 16000 COMPLEMENT
893   8 63   *
894   8 64   CMP16K  MCW   +16000,FNCTN-001                    7  0409  M U53 L07          110
895   8 65           S     HOLDAR,FNCTN-001                    7  0416  S U58 L07          110
896   8 66           ZA    FNCTN-001,HOLDAR=005                7  0423  + L07 U58          111
897   8 67           B     COMPRS                              4  0430  B 390              111
898   8 68   TSTPRC  BWZ   SETDSA,STBOP,2                      8  0434  V 337 004 2        111
899   8 69           B     PUT                                 4  0442  B Z77              111
900   8 70   *
901   8 71   * PROCESS EX + END
902   8 72   *
903   8 73   PROEND  S     ASTADD                              4  0446  S U39              111
904   8 74           BWZ   *+005,STAOP,2                       8  0450  V 462 001 2        111
905   8 75           B     *+005                               4  0458  B 466              111
906   8 76           B     PROCOP                              4  0462  B 578              112
907   8 77           BCE   ENDOPN,TYPE,3                       8  0466  B 478 075 3        112
908   8 78           B     PUT                                 4  0474  B Z77              112
909   8 79   ENDOPN  MCW   'B',BRNCH2                          7  0478  M U59 X84          112
910   8 80           B     PUT                                 4  0485  B Z77              112
911   8 81   *
912   8 82   * PROCESS ORIGIN + EQUATE
913   8 83   *
914   8 84   ORGEQU  BWZ   *+005,STAOP,2                       8  0489  V 501 001 2        112
915   8 85           B     ORGOUT                              4  0497  B 574              112
916   8 86           BCE   ORGOUT,AOPHO,                       8  0501  B 574 017          113
917   8 87           BWZ   ORGOUT,AOPHO,2                      8  0509  V 574 017 2        113
918   8 88           BCE   ORGOUT,AOPHO,*                      8  0517  B 574 017 *        113
919   8 89           BCE   ORGOUT,AOPHO,(                      8  0525  B 574 017 (        113
920   8 90           B     PROCOP                              4  0533  B 578              113
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SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
921  8 91           BWZ   ORGOUT,STAOP,2                            8  0537  V 574 001 2       114
922  8 92           MCW   '0',ITERSW                                7  0545  M U32 U28         114
923  8 93           BCE   *+008,TYPEA,7                            8  0552  B 567 U33 7       114
924  8 94           MZ    BBIT,STAOP                                7  0560  Y 112 001         114
925  8 95           MCW   HOLDAR,LABADD                             7  0567  M U58 061         114
926  8 96  ORGOUT B      PUT                                       4  0574  B Z77             115
927  8 97  *
928  8 98  * PROCESS OPERAND SUB-ROUTINE
929  8 99  *
930  9 00  PROCOP SBR    OPRTN+003                                 4  0578  H /78             115
931  9 01           BWZ   *+005,STACP+X3,2                          8  0582  V 594 0+1 2       115
932  9 02           B     OPRTN                                     4  0590  B /75             115
933  9 03           BCE   SETZRO,AOPHC+X1,                          8  0594  B 942 0/7         115
934  9 04           BCE   PERCNT,AOPHC+X1,(                         8  0602  B 950 0/7 (       115
935  9 05           BWZ   FLOAT,AOPHO+X1,2                          8  0610  V S21 0/7 2       116
936  9 06           BCE   PROAST,AOPHC+X1,*                        8  0618  B /90 0/7 *       116
937  9 07  *
938  9 08  * CONVERT SYMBOL TO TABLE ADDRESS
939  9 09  *
940  9 10  CNVSYM BCE    *+005,AOP-002+X3,                         8  0626  B 638 0F8         116
941  9 11           B     SETSYM                                    4  0634  B 804             116
942  9 12           MCW   AOPER+X1,W6AREA=006                       7  0638  M 0S2 U65         116
943  9 13           BCE   *+5,W6AREA,                              8  0645  B 657 U65         117
944  9 14           B     *+8                                       4  0653  B 664             117
945  9 15           MCW   SFXCTR,W6AREA                             7  0657  M L23 U65         117
946  9 16           ZA    +2,HOLD2=002                              7  0664  + U66 U68         117
947  9 17           ZA    W6AREA-002,HOLD4=004                      7  0671  + U63 U72         117
948  9 18           A     W6AREA,HOLD4                              7  0678  A U65 U72         118
949  9 19           A     W6AREA,HOLD4-002                          7  0685  A U65 U70         118
950  9 20           MZ    NOBIT,HOLD4                               7  0692  Y 110 U72         118
951  9 21           ZA    FACTOR,HOLD7                              7  0699  + L88 U26         118
952  9 22  MPYLP  MN     HOLD7,HOLD1                               7  0706  D U26 U27         118
953  9 23           ZA                                              1  0713  +                 118
954  9 24  MULT   BCE    NXTDGT,HOLD1,+                            8  0714  B 740 U27 +       119
955  9 25           A     HOLD4,HOLD7-002                           7  0722  A U72 U24         119
956  9 26           S     +1,HOLD1                                  7  0729  S U73 U27         119
957  9 27           B     MULT                                      4  0736  B 714             119
958  9 28  NXTDGT S      +1,HOLD2                                  7  0740  S U73 U68         119
959  9 29           BWZ   MPYLP,HOLD2,B                           8  0747  V 706 U68 B       120
960  9 30           MCW   '000',AOP+X3                            7  0755  M U76 0G0         120
961  9 31           BAV   *+001                                    5  0762  B 767 Z           120
962  9 32  LOOP1  A      +96,HOLD7-005                             7  0767  A U78 U21         120
963  9 33           BAV   LOOP1                                     5  0774  B 767 Z           120
964  9 34           MZ    HOLD7-006,AOP+X3                          7  0779  Y U20 0G0         120
965  9 35           MCW   HOLD7-003                                 4  0786  M U23             121
966  9 36           MN    HOLD7-005,*+004                           7  0790  D U21 800         121
967  9 37           MZ    ZONE2,AOP-002+X3                          7  0797  Y 109 0F8         121
968  9 38  *
969  9 39  * SYMBOLIC OPERAND
970  9 40  *
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
971   9 41   SETSYM  MCW   AOPER+X1,FNCTN                      7  0804  M OS2 L08           121
972   9 42           BCE   *+005,FNCTN,                        8  0811  B 823 L08           121
973   9 43           B     *+008                               4  0819  B 830               121
974   9 44           MCW   SFXCTR,FNCTN                        7  0823  M L23 L08           122
975   9 45           MCW   TABMAX,MAXADD                      7  0830  M L11 L14           122
976   9 46           MCW   '0',SWICH1                         7  0837  M U32 U19           122
977   9 47           MCW   AOP+X3,XR2                         7  0844  M OGO 094           122
978   9 48           MCW   SERCHS,MAXSER                      7  0851  M L99 L22           122
979   9 49   *
980   9 50   * TABLE SEARCH
981   9 51   *
982   9 52   SRHLOP  C     FNCTN,SYMBOL                       7  0858  C L08 M-9           123
983   9 53           BE    RECALL                            5  0865  B 980 S             123
984   9 54           BCE   UNDEF,SYMHO,                       8  0870  B 961 M-4           123
985   9 55   BUMPER  A     '010',XR2                         7  0878  A U81 094           123
986   9 56           S     '1',MAXSER                        7  0885  S U34 L22           123
987   9 57           BM    UNDEF,MAXSER                      8  0892  V 961 L22 K         124
988   9 58           C     XR2,MAXADD                        7  0900  C 094 L14           124
989   9 59           BU    SRHLOP                            5  0907  B 858 /             124
990   9 60           BCE   UNDEF,SWICH1,1                    8  0912  B 961 U19 1         124
991   9 61           MCW   '1',SWICH1                        7  0920  M U34 U19           124
992   9 62           MCW   AOP+X3,MAXADD                     7  0927  M OGO L14           125
993   9 63           S     XR2+001                           4  0934  S 095               125
994   9 64           B     SRHLOP                            4  0938  B 858               125
995   9 65   *
996   9 66   * BLANK OPERAND
997   9 67   *
998   9 68   SETZRO  S     HOLDAR                            4  0942  S U58               125
999   9 69           B     CHRADJ                            4  0946  B ‡49               125
1000  9 70   *
1001  9 71   * PERCENT OPERAND
1002  9 72   *
1003  9 73   PERCNT  MCW   AOPER-003+X1,AOP+X3               7  0950  M 0/9 OGO           125
1004  9 74           B     MARK                              4  0957  B /68               125
1005  9 75   *
1006  9 76   * UNDEFINED OPERAND
1007  9 77   *
1008  9 78   UNDEF   BCE   OPRTN,ITERSW,0                    8  0961  B /75 U28 0         126
1009  9 79           MCW   '===',AOP+X3                      7  0969  M U84 OGO           126
1010  9 80           B     OPRTN                             4  0976  B /75               126
1011  9 81   *
1012  9 82   * RETRIEVE VALUE FROM TABLE
1013  9 83   *
1014  9 84   RECALL  BCE   UNDEF,ADDHO,                      8  0980  B 961 M-0           126
1015  9 85           BWZ   *+5,LBLREF,2                      8  0988  V ‡00 M-1 2         126
1016  9 86           B     *+8                               4  0996  B ‡07               126
1017  9 87           MZ    ABIT,LBLREF                       7  1000  Y 111 M-1           127
1018  9 88           MCW   ADDLO,HOLDAR                      7  1007  M M-3 U58           127
1019  9 89           MCW   '0'                               4  1014  M U32               127
1020  9 90           BCE   IOADD,HOLDAR-003,(                8  1018  B /79 U55 (         127
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 SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1021   9 91           BWZ   *+008,HOLDAR-003,2                          8  1026  V ‡41 U55 2         127
1022   9 92           MCW   '1',HOLDAR-004                              7  1034  M U34 U54           128
1023   9 93           BCE   TSTCNV,TYPEA,6                             8  1041  B ‡78 U33 6         128
1024   9 94   *
1025   9 95   * ADD CHARACTER ADJUSTMENT
1026   9 96   *
1027   9 97   CHRADJ MZ    HOLDAR-001,HOLDZN=001                       7  1049  Y U57 U85           128
1028   9 98           BCE   TSTCNV,AOPADJ-002+X1,X                     8  1056  B ‡78 0S4 X         128
1029   9 99           A     AOPADJ+X1,HOLDAR                            7  1064  A 0S6 U58           128
1030  10 00           MZ    HOLDZN,HOLDAR-001                           7  1071  Y U85 U57           129
1031  10 01   TSTCNV BM    MARK,TYPE                                   8  1078  V /68 075 K         129
1032  10 02           BCE   MARK,TYPEA,2                               8  1086  B /68 U33 2         129
1033  10 03   *
1034  10 04   * CONVERT FIVE DIGIT ADDRESS TO THREE DIGIT ADDR
1035  10 05   *
1036  10 06   CNVT03 BAV   *+001                                       5  1094  B ‡99 Z             129
1037  10 07           A     '96',HOLDAR-003                             7  1099  A U87 U55           129
1038  10 08           BAV   CNVT03+005                                  5  1106  B ‡99 Z             130
1039  10 09           MZ    HOLDAR-004,HOLDAR                           7  1111  Y U54 U58           130
1040  10 10           MN    HOLDAR-003,*+004                            7  1118  D U55 /28           130
1041  10 11           MZ    ZONE2,HOLDAR-002                            7  1125  Y 109 U56           130
1042  10 12           MZ    HOLDZN,HOLDAR-001                           7  1132  Y U85 U57           130
1043  10 13           BCE   STRADD,AINDEX+X1,                          8  1139  B /61 0S7           131
1044  10 14           MN    AINDEX+X1,*+004                             7  1147  D 0S7 /57           131
1045  10 15           MZ    ZONE,HOLDAR-001                             7  1154  Y 113 U57           131
1046  10 16   STRADD MCW   HOLDAR,AOP+X3                               7  1161  M U58 0G0           131
1047  10 17   *
1048  10 18   * MARK OPERAND PROCESSED
1049  10 19   *
1050  10 20   MARK   MZ    ABBIT,STAOP+X3                              7  1168  Y 113 0+1           131
1051  10 21   OPRTN  B     XXXX                                        4  1175  B 000               132
1052  10 22   *
1053  10 23   * I/O ADDRESS IN TABLE
1054  10 24   *
1055  10 25   IOADD  MCW   HOLDAR-001,AOP+X3                           7  1179  M U57 0G0           132
1056  10 26          B     MARK                                        4  1186  B /68               132
1057  10 27   *
1058  10 28   * ASTERISK OPERAND
1059  10 29   *
1060  10 30   PROAST BCE   *+5,AOPER+X1,                               8  1190  B S02 0S2           132
1061  10 31          B     CNVSYM                                      4  1198  B 626               132
1062  10 32          BCE   OPRTN,ASTRSW,1                              8  1202  B /75 U18 1         132
1063  10 33          MCW   ASTADD,HOLDAR                              7  1210  M U39 U58           133
1064  10 34          B     CHRADJ                                      4  1217  B ‡49               133
1065  10 35   *
1066  10 36   * ACTUAL OPERAND - FLOAT TO 5 DIGITS
1067  10 37   *
1068  10 38   FLOAT  BCE   CNVSYM,AOPHC+X1,=                           8  1221  B 626 0/7 =         133
1069  10 39          BCE   CNVSYM,AOPHC+X1,'                           8  1229  B 626 0/7 '         133
1070  10 40          BWZ   *+005,AOPER-004+X1,2                        8  1237  V S49 0/8 2         133
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1071 10 41           B     CNVSYM                                    4  1245  B 626             133
1072 10 42           ZA    AOPER-001+X1,HOLDAR                       7  1249  + 0S1 U58         134
1073 10 43  REFLOT   BCE   *+005,HOLDAR,+                           8  1256  B S68 U58 +       134
1074 10 44           B     CHRADJ                                    4  1264  B ‡49             134
1075 10 45           ZA    HOLDAR-001,HOLDAR                         7  1268  + U57 U58         134
1076 10 46           B     REFLOT                                    4  1275  B S56             134
1077 10 47  *
1078 10 48  * PROCESS SUFFIX
1079 10 49  *
1080 10 50  PROSFX  MCW   AOPHO,SFXCTR                               7  1279  M 017 L23         134
1081 10 51           B     PUT                                       4  1286  B Z77             135
1082 10 52  *
1083 10 53  * INITIALIZE PASS D
1084 10 54  *
1085 10 55  PASSD   SW    GPMRK2-1                                  4  1290  , U30             135
1086 10 56           RTW   DINPUT,BYPRD                              8  1294  L (U6 U29 R       135
1087 10 57           CW    GPMRK2-1                                  4  1302  ) U30             135
1088 10 58           CS    CARD+080                                  4  1306  / 080             135
1089 10 59           SW    CARD+001,CARD+006                         7  1310  , 001 006         135
1090 10 60           SW    CARD+017,CARD+024                         7  1317  , 017 024         135
1091 10 61           SW    CARD+028,CARD+035                         7  1324  , 028 035         136
1092 10 62           SW    CARD+057,CARD+062                         7  1331  , 057 062         136
1093 10 63           SW    CARD+068,CARD+071                         7  1338  , 068 071         136
1094 10 64           MCW   BUMPOP,BUMPER                             7  1345  M L27 878         136
1095 10 65           MCW   '6',TPHALT+4                             7  1352  M U88 J15         136
1096 10 66           MCW   '6',TPHLT2+4                             7  1359  M U88 K01         137
1097 10 67           MCW   '6',TPHLT3+4                             7  1366  M U88 J42         137
1098 10 68           MCW   TPAD,WRITE2+006                         7  1373  M L34 X73         137
1099 10 69           MCW   TPAD,READ2+010                          7  1380  M L34 X98         137
1100 10 70           MCW   ' ',SFXCTR                              7  1387  M U89 L23         137
1101 10 71  *
1102 10 72  * TEST LAST ITERATION
1103 10 73  *
1104 10 74           BCE   LSTITR,PROCSW,0                         8  1394  B U07 L95 0       138
1105 10 75           BCE                                           1  1402  B                 138
1106 10 76           B     READ2                                   4  1403  B X88             138
1107 10 77  LSTITR   MCW   '1',ITERSW                              7  1407  M U34 U28         138
1108 10 78           B     READ2                                   4  1414  B X88             138
1109 10 79  ASTRSW   DCW   0                                       1  1418                    138
1110 10 80  SWICH1   DCW   '0'                                     1  1419                    138
1111 10 81  HOLD7    DCW   '       '                               7  1426                    139
1112 10 82  HOLD1    DCW   +0                                      1  1427                    139
1113 10 83  ITERSW   DCW   '0'                                     1  1428                    139
1114 10 84  BYPRD    DCW   ' '                                     1  1429                    139
1115 10 85  GPMRK2   DC    '  '                                    2  1431                    139
1116 10 86  SSOP     EQU   1900                                       1900
1117 10 87           LTORG *                                                1432
                     DCW   '0'                                     1  1432          LIT       139
        835  TYPEA          =01                                    1  1433          AREA      139
                            '1'                                    1  1434          LIT       139
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
		852	ASTADD		=05		5	1439		AREA	140
					'003'		3	1442		LIT	140
					'011'		3	1445		LIT	140
		888			+PUT		3	1448	Z77	ADCON	140
					+16000		5	1453		LIT	140
		896	HOLDAR		=05		5	1458		AREA	140
					'B'		1	1459		LIT	140
		942	W6AREA		=06		6	1465		AREA	141
					+2		1	1466		LIT	141
		946	HOLD2		=02		2	1468		AREA	141
		947	HOLD4		=04		4	1472		AREA	141
					+1		1	1473		LIT	141
					'000'		3	1476		LIT	141
					+96		2	1478		LIT	141
					'010'		3	1481		LIT	142
					'==='		3	1484		LIT	142
		1027	HOLDZN		=01		1	1485		AREA	142
					'96'		2	1487		LIT	142
					'6'		1	1488		LIT	142
					' '		1	1489		LIT	142
1118	10	88	*								
1119	10	89	* INPUT/OUTPUT - PASS D								
1120	10	90	*								
1121	10	91		ORG	WRITE			1767			
1122	10	92	WRITE2	WT	DOUTPT,TPAREA		8	1767	M (U5 I18 W		143
1123	10	93		NOP	XXXX		4	1775	N 000		143
1124	10	94		BER	TPERR		5	1779	B -04 L		143
1125	10	95	BRNCH2	NOP	FINALD		4	1784	N Y13		143
1126	10	96	READ2	S	HOLDA		4	1788	S L31		143
1127	10	97		RT	DINPUT,TPAREA		8	1792	M (U6 I18 R		143
1128	10	98		B	CHKLGT		4	1800	B K08		143
1129	10	99		BER	TPERR		5	1804	B -04 L		144
1130	11	00		B	NXTREC		4	1809	B Z37		144
1131	11	01	*								
1132	11	02	FINALD	WTM	DOUTPT		5	1813	U (U5 M		144
1133	11	03		RWD	DINPUT		5	1818	U (U6 R		144
1134	11	04		RWD	DOUTPT		5	1823	U (U5 R		144
1135	11	05		RTW	SYSTPE,333		8	1828	L (U1 333 R		144
1136	11	06		NOP	XXXX		4	1836	N 000		144
1137	11	07		BER	TPERR		5	1840	B -04 L		145
1138	11	08		CW	ENDOVL		4	1845	) S45		145
1139	11	09		MCW	BUMPOP,TSTLST		7	1849	M L27 474		145
1140	11	10		MCW	BUMPOP,NOT		7	1856	M L27 726		145
1141	11	11		B	TSTREF		4	1863	B 333		145
1142	11	12		DCW	' '		1	1867			145
1143	11	13	ENDOFD	DCW	' '		1	1868			145
1144	11	14		EX	LIBRN				B 000		146

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 SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1145 11 15           JOB   1401 AUTOCODER-PASS 6 PRINT SYMBOL TABLE -VERSION 3
1146 11 16    *
1147 11 17           ORG   333                                                       0333
1148 11 18    *
1149 11 19    * END OF PASS D
1150 11 20    *
1151 11 21    * PRINT LIST OF UNREFERENCED LABELS
1152 11 22    *
1153 11 23    TSTREF CS    0332                                                4   0333  / 332              149
1154 11 24           CS                                                       1   0337  /                  149
1155 11 25           S     XR3+1                                              4   0338  S 100              149
1156 11 26           S                                                        1   0342  S                  149
1157 11 27           S                                                        1   0343  S                  149
1158 11 28           SW    HEADSW=001                                         4   0344  , /80              149
1159 11 29    NXTLBL BCE   TSTLST,SYMHC,                                     8   0348  B 474 M-4          149
1160 11 30           BCE   TSTLST,ADDHC,                                     8   0356  B 474 M-0          150
1161 11 31           BCE   LOZNG,SYMHO,)                                     8   0364  B 530 M-4 )        150
1162 11 32           C     SYMHO,'A'                                          7   0372  C M-4 /81          150
1163 11 33           BH    DOREF                                              5   0379  B 441 U            150
1164 11 34           C     SYMHO,'Z'                                          7   0384  C M-4 /82          150
1165 11 35           BL    DOREF                                              5   0391  B 441 T            151
1166 11 36           MN    SYMHO,XR3                                          7   0396  D M-4 099          151
1167 11 37           BWZ   SWTAB,SYMHO,B                                      8   0403  V 433 M-4 B        151
1168 11 38           A     '010',XR3                                          7   0411  A /85 099          151
1169 11 39           BM    SWTAB,SYMHO                                        8   0418  V 433 M-4 K        151
1170 11 40           A     '010',XR3                                          7   0426  A /85 099          152
1171 11 41    SWTAB  SW    SORTAB+X3                                          4   0433  , /D8              152
1172 11 42           S     XR3+2                                              4   0437  S 101              152
1173 11 43    DOREF  BWZ   *+5,LBLREF,2                                       8   0441  V 453 M-1 2        152
1174 11 44           B     TSTLST                                             4   0449  B 474              152
1175 11 45           BW    NEWPGE,HEADSW                                      8   0453  V 502 /80 1        152
1176 11 46    DONEXT CW    HEADSW                                             4   0461  ) /80              152
1177 11 47           B     PRINT                                              4   0465  B 538              153
1178 11 48           W                                                        1   0469  2                  153
1179 11 49           CS    216                                                4   0470  / 216              153
1180 11 50    TSTLST A     '010',XR2                                          7   0474  A /85 094          153
1181 11 51           C     XR2,TABMAX                                         7   0481  C 094 L11          153
1182 11 52           BE    DUMP                                               5   0488  B 646 S            153
1183 11 53           BCV   NEWPGE                                             5   0493  B 502 '            153
1184 11 54           B     NXTLBL                                             4   0498  B 348              154
1185 11 55    NEWPGE CC    1                                                  2   0502  F 1                154
1186 11 56           MCW   'UNREFERENCED LABELS',219                          7   0504  M S04 219          154
1187 11 57           CC    T                                                  2   0511  F T                154
1188 11 58           W                                                        1   0513  2                  154
1189 11 59           CS    0219                                               4   0514  / 219              154
1190 11 60           BW    DONEXT,HEADSW                                      8   0518  V 461 /80 1        154
1191 11 61           B     NXTLBL                                             4   0526  B 348              155
1192 11 62    LOZNG  SW    LIST-1                                             4   0530  , /78              155
1193 11 63           B     DOREF                                              4   0534  B 441              155
1194 11 64    *
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1195 11 65   * PRINT SUBROUTINE FOR UNREFERENCED LABELS + SYMBOL TABLE
1196 11 66   *
1197 11 67   PRINT  SBR   PRTXT+3                                    4  0538  H 634             155
1198 11 68           MCW   SYMBOL,206+X1                            7  0542  M M-9 2‡6         155
1199 11 69           BCE   DOIO,ADDHC,(                            8  0549  B 635 M-0 (       155
1200 11 70           MN    ADDLO,212+X1                             7  0557  D M-3 2/2         155
1201 11 71           MN                                             1  0564  D                 156
1202 11 72           MN                                             1  0565  D                 156
1203 11 73           MN                                             1  0566  D                 156
1204 11 74           BWZ   *+8,ADDHO,2                            8  0567  V 582 M-0 2       156
1205 11 75           MCW   '1',208+X1                             7  0575  M S05 2‡8         156
1206 11 76           BWZ   PRTXT,ADDLO-1,2                        8  0582  V 631 M-2 2       156
1207 11 77           MN    '1',215+X1                             7  0590  D S05 2/5         156
1208 11 78           MCW   '+X'                                   4  0597  M S07             157
1209 11 79           BWZ   PRTXT,ADDLO-1,S                        8  0601  V 631 M-2 S       157
1210 11 80           MN    '2',215+X1                             7  0609  D S08 2/5         157
1211 11 81           BWZ   PRTXT,ADDLO-1,K                        8  0616  V 631 M-2 K       157
1212 11 82           MN    '3',215+X1                             7  0624  D S09 2/5         157
1213 11 83   PRTXT   B     XXXX                                   4  0631  B 000             157
1214 11 84   DOIO    MCW   ADDLO,212+X1                           7  0635  M M-3 2/2         158
1215 11 85           B     PRTXT                                  4  0642  B 631             158
1216 11 86   *
1217 11 87   * PRINT SYMBOL TABLE
1218 11 88   *
1219 11 89   DUMP    B     NXTPGE                                 4  0646  B 859             158
1220 11 90           S     XR3+1                                  4  0650  S 100             158
1221 11 91           S                                            1  0654  S                 158
1222 11 92           S                                            1  0655  S                 158
1223 11 93   NXTCTR  SW    ENDSW=1                                4  0656  , S10             158
1224 11 94           BW    SCAN,SORTAB+1+X3                       8  0660  V 687 /D9 1       159
1225 11 95   BMPXR3  BCE   TSTEOJ,SORTAB+1+X3,'                   8  0668  B 888 /D9 '       159
1226 11 96           A     +1,XR3                                 7  0676  A S11 099         159
1227 11 97           B     NXTCTR                                 4  0683  B 656             159
1228 11 98   SCAN    BCE   BMPXR3,SORTAB+1+X3,-                   8  0687  B 668 /D9 -       159
1229 11 99           BCE   BMPXR3,SORTAB+1+X3,‡                   8  0695  B 668 /D9 ‡       160
1230 12 00           BCE   BMPXR3,SORTAB+1+X3,/                   8  0703  B 668 /D9 /       160
1231 12 01           MCW   SORTAB+1+X3,TSTLBL+7                   7  0711  M /D9 725         160
1232 12 02   TSTLBL  BCE   DOPNT,SYMHO,X                         8  0718  B 777 M-4 X       160
1233 12 03   NOT     A     '010',XR2                              7  0726  A /85 094         160
1234 12 04           C     XR2,TABMAX                             7  0733  C 094 L11         161
1235 12 05           BU    TSTLBL                                 5  0740  B 718 /           161
1236 12 06           S     XR2+1                                  4  0745  S 095             161
1237 12 07           S                                            1  0749  S                 161
1238 12 08           A     +1,XR3                                 7  0750  A S11 099         161
1239 12 09           CW    ENDSW                                  4  0757  ) S10             161
1240 12 10           BW    PNTSYM,PNTSW                           8  0761  V 812 S18 1       161
1241 12 11           SW    PNTSW                                  4  0769  , S18             162
1242 12 12           B     TSTESW                                 4  0773  B 847             162
1243 12 13   DOPNT   BCE   NOT,ADDHO,                            8  0777  B 726 M-0         162
1244 12 14           B     PRINT                                  4  0785  B 538             162
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 SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1245 12 15           SW    PNTSW                               4  0789  , S18               162
1246 12 16           A     '016',XR1                           7  0793  A S14 089          162
1247 12 17           C     XR1,'128'                           7  0800  C 089 S17          162
1248 12 18           BU    NOT                                 5  0807  B 726 /            163
1249 12 19  PNTSYM   W                                         1  0812  2                  163
1250 12 20           CW    PNTSW=1                             4  0813  ) S18              163
1251 12 21           CS    332                                 4  0817  / 332              163
1252 12 22           CS                                        1  0821  /                  163
1253 12 23           S     XR1+1                               4  0822  S 090              163
1254 12 24           BW    *+9,ENDSW                           8  0826  V 842 S10 1        163
1255 12 25           BCE   TSTEOJ,SORTAB+1+X3,'               8  0834  B 888 /D9 '        164
1256 12 26           BCV   NXTPGE                              5  0842  B 859 '            164
1257 12 27  TSTESW   BW    NOT,ENDSW                           8  0847  V 726 S10 1        164
1258 12 28           B     NXTCTR                              4  0855  B 656              164
1259 12 29  NXTPGE  SBR   PGXT+3                              4  0859  H 887              164
1260 12 30           CS    332                                 4  0863  / 332              164
1261 12 31           CS                                        1  0867  /                  164
1262 12 32           CC    1                                   2  0868  F 1                165
1263 12 33           MCW   'SYMBOL TABLE',212                  7  0870  M S30 212          165
1264 12 34           W                                         1  0877  2                  165
1265 12 35           CC    K                                   2  0878  F K                165
1266 12 36           CS    212                                 4  0880  / 212              165
1267 12 37  PGXT     B     XXXX                                4  0884  B 000              165
1268 12 38  TSTEOJ   BW    *+3,HEADSW                          8  0888  V 898 /80 1        165
1269 12 39           CC    1                                   2  0896  F 1                166
1270 12 391          CS    332                                 4  0898  / 332              166
1271 12 392          CHAIN 3                                                 MACRO
1272                 CS                                        1  0902  /          GEN     166
1273                 CS                                        1  0903  /          GEN     166
1274                 CS                                        1  0904  /          GEN     166
1275 12 40           BCE   EOJOB,ITERSW,1                     8  0905  B 997 U28 1        166
1276 12 41  *
1277 12 42  * GET PASS C
1278 12 43  *
1279 12 44           BSP   SYSTPE                              5  0913  U (U1 B            166
1280 12 45           BSP   SYSTPE                              5  0918  U (U1 B            167
1281 12 46           MCW   '5',TPHALT+4                        7  0923  M S31 J15          167
1282 12 47           MCW   '5',TPHLT2+4                       7  0930  M S31 K01          167
1283 12 48           MCW   '5',TPHLT3+4                       7  0937  M S31 J42          167
1284 12 49           MCW   '00',PROCSW                         7  0944  M S33 L95          167
1285 12 50           MCW   ' ',SFXCTR                          7  0951  M S34 L23          168
1286 12 51  *
1287 12 52  * SET NUMBER OF SEEKS FOR TABLE SEARCH
1288 12 53  *
1289 12 54           C     TOTLAB,TABLSZ                       7  0958  C L93 L18          168
1290 12 55           MCW   TABLSZ,SERCHS                       7  0965  M L18 L99          168
1291 12 56           S     TOTLAB                              4  0972  S L93              168
1292 12 57           BE    RDPSSC                              5  0976  B K72 S            168
1293 12 58           BH    RDPSSC                              5  0981  B K72 U            168
1294 12 59           MCW   +0009,SERCHS                        7  0986  M S38 L99          169
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 SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1295 12 60          B     RDPSSC                                        4  0993  B K72             169
1296 12 61    *
1297 12 62    * LAST ITERATION, GET PASS E
1298 12 63    *
1299 12 64    EOJOB CW    GPMRK2-1                                      4  0997  ) U30             169
1300 12 65          CS    3999                                          4  1001  / I99             169
1301 12 66          BCE   READE,MACHSZ,3                                8  1005  B ≠44 L89 3       169
1302 12 67          CS    4799                                          4  1013  / 79Z             169
1303 12 68          CHAIN 7                                                                MACRO
1304                CS                                                  1  1017  /          GEN    169
1305                CS                                                  1  1018  /          GEN    170
1306                CS                                                  1  1019  /          GEN    170
1307                CS                                                  1  1020  /          GEN    170
1308                CS                                                  1  1021  /          GEN    170
1309                CS                                                  1  1022  /          GEN    170
1310                CS                                                  1  1023  /          GEN    170
1311 12 681 CLR     CS    3999                                          4  1024  / I99             170
1312 12 682         SBR   CLR+3                                         4  1028  H ≠27             171
1313 12 683         C     CLR+3,+SSOP-1                                 7  1032  C ≠27 S41         171
1314 12 684         BU    CLR                                           5  1039  B ≠24 /           171
1315 12 69  READE   RTW   SYSTPE,SSOP                                   8  1044  L (U1 Z00 R       171
1316 12 70          BER   SYSERR                                        5  1052  B ≠68 L           171
1317 12 71  GOTOE   MCW   'N',SSOP                                      7  1057  M S42 Z00         171
1318 12 72          B     SSOP+1                                        4  1064  B Z01             172
1319 12 73  SYSERR MCW   +9,RDCT=1                                     7  1068  M S43 S44         172
1320 12 74          BSP   SYSTPE                                        5  1075  U (U1 B           172
1321 12 75  RETRY   RTW   SYSTPE,SSOP                                   8  1080  L (U1 Z00 R       172
1322 12 76          BER   AGAIN                                         5  1088  B ≠97 L           172
1323 12 77          B     GOTOE                                         4  1093  B ≠57             172
1324 12 78  AGAIN   BSP   SYSTPE                                        5  1097  U (U1 B           172
1325 12 79          S     '1',RDCT                                      7  1102  S S05 S44         173
1326 12 80          BWZ   RETRY,RDCT,B                                 8  1109  V ≠80 S44 B       173
1327 12 81          H     XXXX,691                                      7  1117  . 000 691         173
1328 12 82          RTW   SYSTPE,SSOP                                   8  1124  L (U1 Z00 R       173
1329 12 83          BSS   SYSERR,E                                      5  1132  B ≠68 E           173
1330 12 84          H     XXXX,612                                      7  1137  . 000 612         174
1331 12 85          B     GOTOE                                         4  1144  B ≠57             174
1332 12 86  LIST    DCW   ' ABCDEFGHI-JKLMNOPQR≠/STUVWXYZ)''          32  1179                    175
1333 12 87  SORTAB EQU   LIST-31                                        1148
1334 12 88          LTORG *                                                  1180
      1158  HEADSW DCW   =01                                           1  1180          AREA    175
                         'A'                                           1  1181          LIT     175
                         'Z'                                           1  1182          LIT     175
                         '010'                                         3  1185          LIT     175
      1186               'UNREFERENCED LABELS'                        19  1204          LIT     176
                         '1'                                           1  1205          LIT     176
                         '+X'                                          2  1207          LIT     176
                         '2'                                           1  1208          LIT     176
                         '3'                                           1  1209          LIT     176
      1223  ENDSW        =01                                           1  1210          AREA    176
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					+1		1	1211		LIT	176
					'016'		3	1214		LIT	177
					'128'		3	1217		LIT	177
		1250	PNTSW		=01		1	1218		AREA	177
		1263			'SYMBOL TABLE'		12	1230		LIT	177
					'5'		1	1231		LIT	177
					'00'		2	1233		LIT	177
					' '		1	1234		LIT	177
					+0009		4	1238		LIT	178
		1313			+SSOP-1		3	1241	Y99	ADCON	178
					'N'		1	1242		LIT	178
					+9		1	1243		LIT	178
		1319	RDCT		=01		1	1244		AREA	178
1335	12	89	ENDOVL	DCW	' '		1	1245			178
1336	12	90		EX	LIBRN				B 000		179
1337	12	91		END	LIBRN				/ 000 080		182

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CLEAR STORAGE 1     ,008015,019026,030,034041,045,053,0570571026                                    1
CLEAR STORAGE 2     L068112,102106,113/101099/199,027A070028)027B0010270B0261,001/00111310          2
BOOTSTRAP           ,008015,022029,036040,047054,061068,072/061039              ,0010011040         3

                          1401 AUTOCODER-PASS 7-LIST,CONDNS-INITL 1 -VERSION 3       3771L                PAGE    1

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

 101  1 01   000    JOB   1401 AUTOCODER-PASS 7-LIST,CONDNS-INITL 1 -VERSION 3
 102  1 02          CTL   630 1
 103  1 03   *
 104  1 04   * EQUATES USED BY PROGRAM
 105  1 05   *
 106  1 06   INITAP EQU   (U0                                                    (U0
 107  1 07   SYSTAP EQU   (U1                                                    (U1
 108  1 08   ORIGTP EQU   (U4                                                    (U4
 109  1 09   WORKTP EQU   (U5                                                    (U5
 110  1 10   XTRATP EQU   (U6                                                    (U6
 111  1 11   FIXFRM EQU   0                                                      0000
 112  1 12   STLABL EQU   FIXFRM+2                                               0002
 113  1 13   STSTMT EQU   FIXFRM+5                                               0005
 114  1 14   COUNT  EQU   FIXFRM+7                                               0007
 115  1 15   ORGADD EQU   FIXFRM+32                                              0032
 116  1 16   LABADD EQU   FIXFRM+61                                              0061
 117  1 17   SUPADD EQU   FIXFRM+66                                              0066
 118  1 18   OP     EQU   FIXFRM+67                                              0067
 119  1 19   AOP    EQU   FIXFRM+70                                              0070
 120  1 20   BOP    EQU   FIXFRM+73                                              0073
 121  1 21   DMOD   EQU   FIXFRM+74                                              0074
 122  1 22   TYPE   EQU   FIXFRM+75                                              0075
 123  1 23   ALTER  EQU   FIXFRM+80                                              0080
 124  1 24   XXXX   EQU   0                                                      0000
 125  1 25   PRINT  EQU   200                                                    0200
 126  1 26   ALT    EQU   PRINT+4                                                0204
 127  1 27   PG     EQU   PRINT+7                                                0207
 128  1 28   LIN    EQU   PRINT+11                                               0211
 129  1 29   LAB    EQU   PRINT+19                                               0219
 130  1 30   OPCODE EQU   PRINT+25                                              0225
 131  1 31   OPRAND EQU   PRINT+78                                              0278
 132  1 32   SUFFIX EQU   PRINT+80                                              0280
 133  1 33   CT     EQU   PRINT+84                                               0284
 134  1 34   LOCN   EQU   PRINT+90                                              0290
 135  1 35   INOP   EQU   PRINT+93                                              0293
 136  1 36   INAOP  EQU   PRINT+97                                              0297
 137  1 37   INBOP  EQU   PRINT+101                                             0301
 138  1 38   INDMOD EQU   PRINT+103                                             0303
 139  1 39   KIND   EQU   PRINT+109                                             0309
 140  1 40   CARDNO EQU   PRINT+114                                             0314
 141  1 41   PUNCH  EQU   100                                                    0100
 142  1 42   LIBRN  EQU   0                                                      0000
 143  1 43   ZONE   EQU   189                                                    0189
 144  1 44   XR1    EQU   89                                                     0089
 145  1 45   XR2    EQU   94                                                     0094
 146  1 46   XR3    EQU   99                                                     0099
 147  1 47   *
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SEQ PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
148  1 48   * INITIALIZATION ROUTINE
149  1 49   *
150  1 50          ORG   1900                                      1900
151  1 51   SSOP   DCW   'B'                               1   1900                        4
152  1 52          CS    332                               4   1901  / 332                 4
153  1 53          CS                                      1   1905  /                     4
154  1 54          CS                                      1   1906  /                     4
155  1 55          CS                                      1   1907  /                     4
156  1 56          RTW   SYSTAP,400                        8   1908  L (U1 400 R           4
157  1 57          NOP   XXXX                              4   1916  N 000                 4
158  1 58          BER   TPERRI                            5   1920  B M03 L               5
159  1 59          CW    ENDIN2,LSTOP1                     7   1925  ) X99 093             5
160  1 60          SW    ENDIN                             4   1932  , I98                 5
161  1 61          LCA   ENDIN,333                         7   1936  L I98 333             5
162  1 62          LCA   ENDIN,181                         7   1943  L I98 181             5
163  1 63          MCW   SSOP,TSTSIZ                      7   1950  M Z00 407             5
164  1 64          MCW   SSOP,SSAVE1                      7   1957  M Z00 091             6
165  1 65          CW    ENDIN                             4   1964  ) I98                 6
166  1 66          RWD   ORIGTP                            5   1968  U (U4 R               6
167  1 67          RWD   WORKTP                            5   1973  U (U5 R               6
168  1 68          RWD   XTRATP                            5   1978  U (U6 R               6
169  1 69          SW    PUNCH+72,PUNCH+76                 7   1983  , 172 176             6
170  1 70          A     +1,PUNCH+75                       7   1990  A 096 175             7
171  1 71          B     READ4                             4   1997  B T15                 7
172  1 72   *
173  1 73   * CHECK FOR JOB CARD
174  1 74   *
175  1 75          C     MNEMON-2,'JOB'                    7   2001  C H48 099             7
176  1 76          BU    CKCTL                             5   2008  B -78 /               7
177  1 77          CW    JOBSW=1                           4   2013  ) P00                 7
178  1 78          RT    WORKTP,180                        8   2017  M (U5 180 R           7
179  1 79          LCA   333,181                          7   2025  L 333 181             8
180  1 80          MCW   OPERND,JOBSAV                    7   2032  M I02 085             8
181  1 81          MCW   IMAGE+80,PUNCH+80                7   2039  M I10 180             8
182  1 82          MCW   ALTNO,JOBALT=4                   7   2046  M I14 P04             8
183  1 83          MCW   PAGENO,JOBPAG=2                  7   2053  M H32 P06             8
184  1 84          MCW   LINENO,JOBLIN=3                  7   2060  M H35 P09             9
185  1 85          MCW   LABEL,JOBLAB=6                   7   2067  M H41 P15             9
186  1 86          B     READ4                             4   2074  B T15                 9
187  1 87   *
188  1 88   * CHECK FOR CONTROL CARD
189  1 89   *
190  1 90   CKCTL  C     MNEMON-2,'CTL'                    7   2078  C H48 P18             9
191  1 91          BU    TSTSIZ                            5   2085  B 407 /               9
192  1 92          CW    CTLSW=1                           4   2090  ) P19                 9
193  1 93          MCW   IMAGE+30,CTLSAV=10                7   2094  M H60 P29            10
194  1 94          MCW   ALTNO,CTLALT=4                   7   2101  M I14 P33            10
195  1 95          MCW   PAGENO,CTLPAG=2                  7   2108  M H32 P35            10
196  1 96          MCW   LINENO,CTLLIN=3                  7   2115  M H35 P38            10
197  1 97          B     READ4                             4   2122  B T15                10
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
198  1 98   *
199  1 99   * TEST OUTPUT OPTION DESIRED
200  2 00   *
201  2 01   CHKOP   BCE   OPNTAP,LSTAPE,1                            8  2126  B K14 P24 1         11
202  2 02   TSTOP   BCE   TSTSIZ,OUTOPN,0                           8  2134  B 407 P22 0         11
203  2 03          BCE   CONDOP,OUTOPN,1                           8  2142  B 400 P22 1         11
204  2 04          BCE   TSTSIZ,OUTOPN,2                           8  2150  B 407 P22 2         11
205  2 05          BCE   CONDOP,OUTOPN,3                           8  2158  B 400 P22 3         12
206  2 06          BCE   TSTSIZ,OUTOPN,4                           8  2166  B 407 P22 4         12
207  2 07          BCE   CONDOP,OUTOPN,5                           8  2174  B 400 P22 5         12
208  2 08          BCE   TSTSIZ,OUTOPN,6                           8  2182  B 407 P22 6         12
209  2 09          BCE   CONDOP,OUTOPN,7                           8  2190  B 400 P22 7         13
210  2 10          BCE   TSTSIZ,OUTOPN,                            8  2198  B 407 P22           13
211  2 11          CW    CTLSW1=1                                  4  2206  ) P39               13
212  2 12          B     TSTSIZ                                    4  2210  B 407               13
213  2 13   OPNTAP CW    TAPOP1                                    4  2214  ) 092               13
214  2 14          B     TSTOP                                     4  2218  B J34               13
215  2 15   *
216  2 16   * SETUP + GET MAIN PROGRAM
217  2 17   *
218  2 18   GETMAN BSP   ORIGTP                                    5  2222  U (U4 B             13
219  2 19          SW    FIXFRM+1,FIXFRM+6                         7  2227  , 001 006           14
220  2 20          SW    FIXFRM+8,FIXFRM+14                        7  2234  , 008 014           14
221  2 21          SW    FIXFRM+23,FIXFRM+57                       7  2241  , 023 057           14
222  2 22          SW    FIXFRM+62,FIXFRM+67                       7  2248  , 062 067           14
223  2 23          SW    FIXFRM+68,FIXFRM+71                       7  2255  , 068 071           14
224  2 24          SW    FIXFRM+74                                 4  2262  , 074               14
225  2 25          CW    181,333                                   7  2266  ) 181 333           15
226  2 26          MCW   KBLK1,HOLDA1-1                            7  2273  M 027 023           15
227  2 27          LCA   'LO     ,      ,      ,      1    ',PUNCH+71  7  2280  L P71 171         15
228  2 28          LCA   '2SKB',ZONE                               7  2287  L P75 189           15
229  2 29          LCA   '00000',XR3+2                             7  2294  L P80 101           15
230  2 30          LCA   XR3+2                                     4  2301  L 101               15
231  2 31          LCA                                           1  2305  L                   16
232  2 32          SW    GRPMK3                                    4  2306  , 095               16
233  2 33          BCE   SETOUT,CNDSW1,1                          8  2310  B L49 033 1         16
234  2 34          BW    *+5,LSTOP1                                8  2318  V L30 093 1         16
235  2 35          B     SETOUT                                    4  2326  B L49               16
236  2 36          BW    *+5,TAPOP1                                8  2330  V L42 092 1         16
237  2 37          B     SETOUT                                    4  2338  B L49               16
238  2 38          MCW   '1',NOOUT1                                7  2342  M P81 094           17
239  2 39   SETOUT MCW   OUTOPN,OPNSV1                            7  2349  M P22 090           17
240  2 40          WTW   XTRATP,SAVCN1                           8  2356  L (U6 021 W         17
241  2 41          NOP   XXXX                                     4  2364  N 000               17
242  2 42          BER   TPERRI                                   5  2368  B M03 L             17
243  2 43          RWD   XTRATP                                    5  2373  U (U6 R             17
244  2 44          CW    GRPMK3                                    4  2378  ) 095               18
245  2 45          RTW   SYSTAP,201                                8  2382  L (U1 201 R         18
246  2 46          NOP   XXXX                                     4  2390  N 000               18
247  2 47          BER   TPERRI                                   5  2394  B M03 L             18
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SEQ  PG LIN  LABEL    OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
248   2 48           B     INIT2                               4  2399  B 201               18
249   2 49    *
250   2 50    * TAPE REDUNDANCY ROUTINE
251   2 51    *
252   2 52    TPERRI SBR    XR2                                 4  2403  H 094               18
253   2 53           SBR    REDXI+3                             4  2407  H M75               18
254   2 54           MZ     +9,XR2                              7  2411  Y P82 094           19
255   2 55           MCW    4000-10+X2,TPINSI+7                 7  2418  M IR0 M66           19
256   2 56           MN     TPINSI+3,BSPI+3                     7  2425  D M62 M42           19
257   2 57           MCW    TPINSI+7,INST2I+7                   7  2432  M M66 N75           19
258   2 58    BSPI   BSP    INITAP                              5  2439  U (U0 B             19
259   2 59           BCE    WRTRDI,TPINSI+7,W                   8  2444  B N48 M66 W         20
260   2 60           MCW    +9,READCI=1                         7  2452  M P82 P83           20
261   2 61    TPINSI RT     INITAP,XXXX                         8  2459  M (U0 000 R         20
262   2 62           BER    RDRERI                              5  2467  B M76 L             20
263   2 63    REDXI  B      XXXX                                4  2472  B 000               20
264   2 64    RDRERI MN     TPINSI+3,BSP2I+3                    7  2476  D M62 M86           20
265   2 65    BSP2I  BSP    INITAP                              5  2483  U (U0 B             21
266   2 66           S      +1,READCI                           7  2488  S 096 P83           21
267   2 67           BWZ    TPINSI,READCI,B                     8  2495  V M59 P83 B         21
268   2 68           MN     TPINSI+3,TPHALI+6                   7  2503  D M62 N16           21
269   2 69    TPHALI H      XXXX,790                            7  2510  . 000 790           21
270   2 70           MCW    TPINSI+7,*+8                        7  2517  M M66 N31           22
271   2 71           RT     INITAP,XXXX                         8  2524  M (U0 000 R         22
272   2 72           BSS    BSPI,E                              5  2532  B M39 E             22
273   2 73           H      XXXX,711                            7  2537  . 000 711           22
274   2 74           B      REDXI                               4  2544  B M72               22
275   2 75    WRTRDI SKP    SYSTAP                              5  2548  U (U1 E             22
276   2 76           BCE    SUBCTI,WRTCTI-1,5                   8  2553  B N85 P84 5         23
277   2 77           A      +1,WRTCTI=2                         7  2561  A 096 P85           23
278   2 78    INST2I WT     INITAP,XXXX                         8  2568  M (U0 000 W         23
279   2 79           BER    BSPI                                5  2576  B M39 L             23
280   2 80           B      REDXI                               4  2581  B M72               23
281   2 81    SUBCTI S      WRTCTI                              4  2585  S P85               23
282   2 82           MN     TPINSI+3,*+7                        7  2589  D M62 002           24
283   2 83           H      XXXX,760                            7  2596  . 000 760           24
284   2 84           B      INST2I                              4  2603  B N68               24
285   2 85    CLRLEG DCW    'CLEAR STORAGE '                   14  2620                      24
286   2 86    HOLDA1 DCW    +0000                               4  2624                      24
287   2 87    KBLK1  DCW    '080'                               3  2627                      24
288   2 88    CORSIZ DCW    ' 3999'                             5  2632                      25
289   2 89    CNDSW1 DCW    '0'                                 1  2633                      25
290   2 90    JOBSAV DCW    =52                                52  2685                      27
291   2 91    ERRCT1 DCW    '0000'                              4  2689                      27
292   2 92    OPNSV1 DCW    ' '                                 1  2690                      27
293   2 93    SSAVE1 DCW    ' '                                 1  2691                      27
294   2 94    TAPCP1 DCW    ' '                                 1  2692                      27
295   2 95    LSTOP1 DCW    ' '                                 1  2693                      28
296   2 96    NOOUT1 DCW    ' '                                 1  2694                      28
297   2 97    GRPMK3 DC     ' '                                 1  2695                      28
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298	2	98	SAVCN1	EQU	HOLDA1-3			2621			
299	2	99		LTORG	*				2696		
				DCW	+1		1	2696		LIT	28
					'JOB'		3	2699		LIT	28
		177	JOBSW		=01		1	2700		AREA	28
		182	JOBALT		=04		4	2704		AREA	28
		183	JOBPAG		=02		2	2706		AREA	28
		184	JOBLIN		=03		3	2709		AREA	29
		185	JOBLAB		=06		6	2715		AREA	29
					'CTL'		3	2718		LIT	29
		192	CTLSW		=01		1	2719		AREA	29
		193	CTLSAV		=10		10	2729		AREA	29
		194	CTLALT		=04		4	2733		AREA	29
		195	CTLPAG		=02		2	2735		AREA	29
		196	CTLLIN		=03		3	2738		AREA	30
		211	CTLSW1		=01		1	2739		AREA	30
		227			'L0 , , , 1 '		32	2771		LIT	30
					'2SKB'		4	2775		LIT	31
		229			'00000'		5	2780		LIT	31
					'1'		1	2781		LIT	31
					+9		1	2782		LIT	31
		260	READCI		=01		1	2783		AREA	31
		277	WRTCTI		=02		2	2785		AREA	31
300	3	00		ORG	3831			3831			
301	3	01	INPUT4	DA	1X86			3831	3916		31
302	3	02	PAGENO		1,2			3832		FIELD	32
303	3	03	LINENO		3,5			3835		FIELD	32
304	3	04	LABEL		6,11			3841		FIELD	32
305	3	05	MNEMON		16,20			3850		FIELD	32
306	3	06	OPERND		21,72			3902		FIELD	32
307	3	07	ALTNO		81,84			3914		FIELD	32
308	3	08	IMAGE	EQU	INPUT4-1			3830			
309	3	09	FIXINP	EQU	IMAGE+87+X3	X		3917			
310	3	10	INPUT5	EQU	FIXINP+1+X0			3918			
311	3	11	PROSIZ	EQU	CTLSAV-9			2720			
312	3	12	OBJSIZ	EQU	CTLSAV-8			2721			
313	3	13	OUTOPN	EQU	CTLSAV-7			2722			
314	3	14	LSTAPE	EQU	CTLSAV-5			2724			
315	3	15	ENDIN	EQU	3998			3998			
316	3	16	3998	DCW	' '		1	3998			33
317	3	17		XFR	LIBRN				B 000		34

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SEQ  PG LIN  LABEL   OP    OPERANDS                                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
318   3 18           JOB   1401 AUTOCODER-PASS 7 LIST,CONDNS-INITL 2 -VERSION 3
319   3 19           ORG   400                                                           0400
320   3 20    *
321   3 21    * CONDENSE OPTION
322   3 22    *
323   3 23    CONDOP MCW   '1',CNDSW1                                               7   0400  M T64 033             37
324   3 24    *
325   3 25    * TEST OBJECT MACHINE SIZE
326   3 26    *
327   3 27    TSTSIZ BSS   SENSW,F                                                  5   0407  B /03 F               37
328   3 28           BW    *+3,LSTOP1                                              8   0412  V 422 093 1           37
329   3 29           CC    1                                                       2   0420  F 1                   37
330   3 30           MCW   '1',PRINT+15                                            7   0422  M T64 215             37
331   3 31           MCW   CLRLEG                                                  4   0429  M 020                 37
332   3 32           MCW   '1',200                                                 7   0433  M T64 200             38
333   3 33           BW    IS4K,CTLSW                                              8   0440  V 544 P19 1           38
334   3 34           C     OBJSIZ,'3'                                              7   0448  C P21 T65             38
335   3 35           BL    OVER4K                                                  5   0455  B 464 T               38
336   3 36           B     IS4K                                                    4   0460  B 544                 38
337   3 37    OVER4K C     OBJSIZ,'6'                                              7   0464  C P21 T66             38
338   3 38           BL    BADCTL                                                  5   0471  B 540 T               39
339   3 39           MCW   ',053053N000000N00001026',PUNCH+52                     7   0476  M T89 152             39
340   3 40           LCA   ',008015,022026,030037,044,049'                        4   0483  L U18                 39
341   3 41           MCW   PUNCH+52,PRINT+72                                      7   0487  M 152 272             39
342   3 42           B     PRTPNH                                                  4   0494  B S17                 39
343   3 43           MCW   '1,001/00111710+',PUNCH+71                            7   0498  M U33 171             39
344   3 44           MCW   '=071029C029056B026/B001/099'                          4   0505  M U60                 39
345   3 45           LCA   'L068116,105106,110117B101/I9I'                       4   0509  L U89                 40
346   3 46           BCE   IS8K,OBJSIZ,4                                         8   0513  B 651 P21 4           40
347   3 47           BCE   IS12K,OBJSIZ,5                                        8   0521  B 669 P21 5           40
348   3 48           MCW   '15',CORSIZ-3                                         7   0529  M U91 029             40
349   3 49           B     CLRST2                                                  4   0536  B 683                 40
350   3 50    BADCTL CW    CTLSW1                                                  4   0540  ) P39                 40
351   3 51    IS4K   MCW   ',0570571C26',PUNCH+44                                 7   0544  M V02 144             41
352   3 52           LCA   ',008015,019026,030,034041,045,053'                    4   0551  L V35                 41
353   3 53           MCW   PUNCH+44,PRINT+64                                      7   0555  M 144 264             41
354   3 54           B     PRTPNH                                                  4   0562  B S17                 41
355   3 55           MCW   'B00102708O261,001/00111310',PUNCH+70                 7   0566  M V61 170             41
356   3 56           LCA   'L068112,102106,113/101099/I99,027A070028)027'         4   0573  L W05                 41
357   3 57           BCE   CLRST2,OBJSIZ,3                                       8   0577  B 683 P21 3           42
358   3 58           MZ    'S',PUNCH+27                                            7   0585  Y W06 127             42
359   3 59           MCW   '1',CORSIZ-3                                          7   0592  M T64 029             42
360   3 60           BCE   CLRST2,OBJSIZ,2                                       8   0599  B 683 P21 2           42
361   3 61           MCW   'T',PUNCH+27                                          7   0607  M W07 127             42
362   3 62           MCW   '3',CORSIZ-2                                          7   0614  M T65 030             43
363   3 63           BCE   CLRST2,OBJSIZ,1                                       8   0621  B 683 P21 1           43
364   3 64           CW    CTLSW1                                                  4   0629  ) P39                 43
365   3 65           MCW   'I',PUNCH+27                                          7   0633  M W08 127             43
366   3 66           MCW   '39',CORSIZ-2                                         7   0640  M W10 030             43
367   3 67           B     CLRST2                                                  4   0647  B 683                 43
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SEQ  PG LIN  LABEL   OP    OPERANDS                                              SFX CT  LOCN  INSTRUCTION TYPE  CARD
368   3 68   IS8K    MZ    'S',PUNCH+29                                            7  0651  Y W06 129           44
369   3 69           MCW   '7',CORSIZ-3                                           7  0658  M W11 029           44
370   3 70           B     CLRST2                                                  4  0665  B 683               44
371   3 71   IS12K   MZ    'K',PUNCH+29                                            7  0669  Y W12 129           44
372   3 72           MCW   '11',CORSIZ-3                                          7  0676  M W14 029           44
373   3 73   CLRST2  MCW   PUNCH+71,PRINT+91                                       7  0683  M 171 291           44
374   3 74           MCW   '2',PRINT+15                                           7  0690  M W15 215           45
375   3 75           MCW   CLRLEG                                                  4  0697  M 020               45
376   3 76           B     PRTPNH                                                  4  0701  B S17               45
377   3 77           MCW   ',0010011040',PUNCH+71                                 7  0705  M W26 171           45
378   3 78           MCW   ',061068,072/061039',PUNCH+46                          7  0712  M W44 146           45
379   3 79           LCA   ',008015,022029,036040,047054'                        4  0719  L W72               45
380   3 80           MCW   PUNCH+71,PRINT+91                                     7  0723  M 171 291           46
381   3 81           MCW   'BOOTSTRAP',PRINT+9                                   7  0730  M W81 209           46
382   3 82           B     PRTPNH                                                  4  0737  B S17               46
383   3 83           BW    *+3,LSTOP1                                              8  0741  V 751 093 1         46
384   3 84           CC    K                                                       2  0749  F K                 46
385   3 85           BW    DOHEAD,CTLSW                                            8  0751  V 818 P19 1         46
386   3 86   *
387   3 87   * TEST PROCESSOR MACHINE SIZE
388   3 88   *
389   3 89           C     PROSIZ,'3'                                              7  0759  C P20 T65           47
390   3 90           BE    DOHEAD                                                  5  0766  B 818 S             47
391   3 91           BH    BADPRO                                                  5  0771  B 814 U             47
392   3 92           C     PROSIZ,'6'                                              7  0776  C P20 T66           47
393   3 93           BL    BADPRO                                                  5  0783  B 814 T             47
394   3 94           MCW   '400',KBLK1                                            7  0788  M W84 027           47
395   3 95           BCE   DOHEAD,PROSIZ,4                                        8  0795  B 818 P20 4         48
396   3 96           A     '400',KBLK1                                             7  0803  A W84 027           48
397   3 97           B     DOHEAD                                                  4  0810  B 818               48
398   3 98   BADPRO  CW    CTLSW1                                                  4  0814  ) P39               48
399   3 99   *
400   4 00   * PRINT HEADING, JOB + CONTROL CARDS
401   4 01   *
402   4 02   DOHEAD  MCW   '1',PRINT+114                                          7  0818  M T64 314           48
403   4 03           MCW   'PAGE',PRINT+109                                      7  0825  M W88 309           48
404   4 04           MCW   JOBSAV,OPRAND                                         7  0832  M 085 278           49
405   4 05           MCW   PUNCH+80,LOCN                                         7  0839  M 180 290           49
406   4 06           MCW   '0',200                                               7  0846  M W89 200           49
407   4 07           B     PRINT2                                                  4  0853  B ≠61               49
408   4 08           BW    *+3,LSTOP1                                              8  0857  V 867 093 1         49
409   4 09           CC    K                                                       2  0865  F K                 49
410   4 10           CS    PRINT+78                                                4  0867  / 278               49
411   4 11           MCW   'SFX CT  LOCN  INSTRUCTION TYPE  CARD',PRINT+114       7  0871  M X25 314           50
412   4 12           MCW   'SEQ PG LIN  LABEL  OP    OPERANDS',PRINT+34           7  0878  M X58 234           50
413   4 13           MCW   '0',200                                               7  0885  M W89 200           50
414   4 14           B     PRINT2                                                  4  0892  B ≠61               50
415   4 15           CS    PRINT+132                                               4  0896  / 332               50
416   4 16           CS                                                            1  0900  /                   50
417   4 17           B     PRINT2                                                  4  0901  B ≠61               50
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
418   4 18           BW    TSTCTL,JOBSW                               8  0905  V 970 P00 1         51
419   4 19           MCS   JOBALT,ALT                                7  0913  Z P04 204           51
420   4 20           MCS   JOBPAG,PG                                 7  0920  Z P06 207           51
421   4 21           MZ    JOBPAG,PG                                 7  0927  Y P06 207           51
422   4 22           MCW   JOBLIN,LIN                                7  0934  M P09 211           51
423   4 23           MCW   JOBLAB,LAB                                7  0941  M P15 219           52
424   4 24           MCW   'JOB',OPCODE-2                           7  0948  M X61 223           52
425   4 25           MCW   JOBSAV,OPRAND                            7  0955  M 085 278           52
426   4 26           B     PRINT2                                    4  0962  B ‡61               52
427   4 27           CS    OPRAND                                    4  0966  / 278               52
428   4 28  TSTCTL   BW    NOCNTL,CTLSW                              8  0970  V ‡50 P19 1         52
429   4 29           MCS   CTLALT,ALT                                7  0978  Z P33 204           53
430   4 30           MCS   CTLPAG,PG                                 7  0985  Z P35 207           53
431   4 31           MZ    CTLPAG,PG                                 7  0992  Y P35 207           53
432   4 32           MCW   CTLLIN,LIN                                7  0999  M P38 211           53
433   4 33           MCW   CTLSAV,PRINT+36                           7  1006  M P29 236           53
434   4 34           MCW   'CTL',OPCODE-2                           7  1013  M X64 223           54
435   4 35           BW    CTLPNT,CTLSW1                             8  1020  V ‡42 P39 1         54
436   4 36           MCW   'BAD STATEMENT',PRINT+128                 7  1028  M X77 328           54
437   4 37  ERRCTL   A     +1,ERRCT1                                 7  1035  A X78 089           54
438   4 38  CTLPNT   B     PRINT2                                    4  1042  B ‡61               54
439   4 39           B     GETMAN                                    4  1046  B K22               54
440   4 40  NOCNTL   MCW   'NO CONTROL CARD',PRINT+130               7  1050  M X93 330           55
441   4 41           B     ERRCTL                                    4  1057  B ‡35               55
442   4 42  PRINT2   SBR   PNT2XT+3                                 4  1061  H /02               55
443   4 43           BW    *+2,LSTOP1                                8  1065  V ‡74 093 1         55
444   4 44           W                                               1  1073  2                   55
445   4 45           BW    PNT2XT,TAPOP1                             8  1074  V ‡99 092 1         55
446   4 46           WT    3,200                                     8  1082  M (U3 200 W         56
447   4 47           NOP   XXXX                                      4  1090  N 000               56
448   4 48           BER   TPERRI                                    5  1094  B M03 L             56
449   4 49  PNT2XT   B     XXXX                                      4  1099  B 000               56
450   4 50  *
451   4 51  * TEST SENSE SWITCHES FOR OUTPUT OPTIONS
452   4 52  *
453   4 53  SENSW    LCA   '0',OUTOPN                               7  1103  L W89 P22           56
454   4 54           LCA   '0',CNDSW1                               7  1110  L W89 033           56
455   4 55           MCW   ' ',LSTAPE                               7  1117  M X94 P24           57
456   4 56           SW    TAPOP1                                    4  1124  , 092               57
457   4 57           BSS   ADD1,B                                    5  1128  B /68 B             57
458   4 58  TSTSSC   BSS   ADD2,C                                    5  1133  B /79 C             57
459   4 59  TSTSSG   BSS   ADD4,G                                    5  1138  B /90 G             57
460   4 60  TSTSSD   BSS   LSTAP,D                                   5  1143  B S01 D             57
461   4 61  TSTSSE   BSS   SUPLST,E                                  5  1148  B S09 E             57
462   4 62  SSXT     CW    OUTOPN                                    4  1153  ) P22               58
463   4 63           MCW   'N',TSTSIZ                               7  1157  M X95 407           58
464   4 64           B     CHKOP                                     4  1164  B J26               58
465   4 65  ADD1     A     +1,OUTOPN                                 7  1168  A X78 P22           58
466   4 66           B     TSTSSC                                    4  1175  B /33               58
467   4 67  ADD2     A     +2,OUTOPN                                 7  1179  A X96 P22           58
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE      CARD
468   4 68           B     TSTSSG                             4  1186  B /38                    58
469   4 69   ADD4    A     +4,OUTOPN                          7  1190  A X97 P22                59
470   4 70           B     TSTSSD                             4  1197  B /43                    59
471   4 71   LSTAP   CW    TAPOP1                             4  1201  ) 092                    59
472   4 72           B     TSTSSE                             4  1205  B /48                    59
473   4 73   SUPLST  SW    LSTOP1                             4  1209  , 093                    59
474   4 74           B     SSXT                               4  1213  B /53                    59
475   4 75   *
476   4 76   * PRINT AND/OR PUNCH
477   4 77   *
478   4 78   PRTPNH  SBR   EXIT+3                             4  1217  H T14                    59
479   4 79           MCS   PUNCH+75,CARDNO                    7  1221  Z 175 314                60
480   4 80           BW    *+2,LSTOP1                         8  1228  V S37 093 1              60
481   4 81           W                                        1  1236  2                        60
482   4 82           BW    PUNCH1,TAPOP1                      8  1237  V S86 092 1              60
483   4 83           WT    3,200                              8  1245  M (U3 200 W              60
484   4 84           NOP   XXXX                               4  1253  N 000                    60
485   4 85           BER   TPERRI                            5  1257  B M03 L                  61
486   4 86           MCW   '+',100                            7  1262  M X98 100                61
487   4 87           WT    3,100                              8  1269  M (U3 100 W              61
488   4 88           NOP   XXXX                               4  1277  N 000                    61
489   4 89           BER   TPERRI                            5  1281  B M03 L                  61
490   4 90   PUNCH1  BCE   *+2,CNDSW1,0                       8  1286  B S95 033 0              61
491   4 91           P                                        1  1294  4                        61
492   4 92           A     +1,PUNCH+75                        7  1295  A X78 175                62
493   4 93           CS    PRINT+132                          4  1302  / 332                    62
494   4 94           CS                                       1  1306  /                        62
495   4 95           CS    PUNCH+71                           4  1307  / 171                    62
496   4 96   EXIT    B     XXXX                               4  1311  B 000                    62
497   4 97   *
498   4 98   * READ ORIGINAL TAPE
499   4 99   *
500   5 00   READ4   SBR   READ4X+3                          4  1315  H T39                    62
501   5 01           RT    ORIGTP,INPUT4                      8  1319  M (U4 H31 R              62
502   5 02           B     CHKLG                              4  1327  B T40                    63
503   5 03           BER   TPERRI                            5  1331  B M03 L                  63
504   5 04   READ4X  B     XXXX                               4  1336  B 000                    63
505   5 05   CHKLG   BCE   READ4+4,INPUT4+12,                 8  1340  B T19 H43                63
506   5 06           CHAIN 12                                                  MACRO
507                  BCE                                      1  1348  B        GEN             63
508                  BCE                                      1  1349  B        GEN             63
509                  BCE                                      1  1350  B        GEN             63
510                  BCE                                      1  1351  B        GEN             64
511                  BCE                                      1  1352  B        GEN             64
512                  BCE                                      1  1353  B        GEN             64
513                  BCE                                      1  1354  B        GEN             64
514                  BCE                                      1  1355  B        GEN             64
515                  BCE                                      1  1356  B        GEN             64
516                  BCE                                      1  1357  B        GEN             64
517                  BCE                                      1  1358  B        GEN             65
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SEQ  PG LIN  LABEL    OP     OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
518                   BCE                                                        1  1359  B           GEN     65
519   5 07            B      READ4X-5                                            4  1360  B T31               65
520   5 08            LTORG  *                                                        1364
                      DCW    '1'                                                 1  1364                LIT     65
                             '3'                                                 1  1365                LIT     65
                             '6'                                                 1  1366                LIT     65
          339                ',053053N000000N00001026'                          23  1389                LIT     65
          340                ',008015,022026,030037,044,049'                    29  1418                LIT     66
          343                '1,001/00111710+'                                  15  1433                LIT     67
          344                '=071029C029056B026/B001/099'                      27  1460                LIT     68
          345                'L068116,105106,110117B101/I9I'                    29  1489                LIT     69
                             '15'                                                2  1491                LIT     69
          351                ',0570571026'                                      11  1502                LIT     70
          352                ',008015,019026,030,034041,045,053'                33  1535                LIT     71
          355                'B0010270B0261,001/00111310'                       26  1561                LIT     72
          356                'L068112,102106,113/101099/I99,027A070028)027'     44  1605                LIT     74
                             'S'                                                 1  1606                LIT     74
                             'T'                                                 1  1607                LIT     74
                             'I'                                                 1  1608                LIT     74
                             '39'                                                2  1610                LIT     74
                             '7'                                                 1  1611                LIT     75
                             'K'                                                 1  1612                LIT     75
                             '11'                                                2  1614                LIT     75
                             '2'                                                 1  1615                LIT     75
          377                ',0010011040'                                      11  1626                LIT     75
          378                ',061068,072/061039'                               18  1644                LIT     75
          379                ',008015,022029,036040,047054'                     28  1672                LIT     76
          381                'BOOTSTRAP'                                         9  1681                LIT     76
                             '400'                                               3  1684                LIT     77
                             'PAGE'                                              4  1688                LIT     77
                             '0'                                                 1  1689                LIT     77
          411                'SFX CT  LOCN  INSTRUCTION TYPE  CARD'            36  1725                LIT     78
          412                'SEQ PG LIN  LABEL  OP    OPERANDS'                33  1758                LIT     79
                             'JOB'                                               3  1761                LIT     79
                             'CTL'                                               3  1764                LIT     79
          436                'BAD STATEMENT'                                    13  1777                LIT     80
                             +1                                                  1  1778                LIT     80
          440                'NO CONTROL CARD'                                  15  1793                LIT     80
                             ' '                                                 1  1794                LIT     80
                             'N'                                                 1  1795                LIT     80
                             +2                                                  1  1796                LIT     80
                             +4                                                  1  1797                LIT     80
                             '+'                                                 1  1798                LIT     81
521   5 09    ENDIN2 DCW     ' '                                                 1  1799                       81
522   5 10           XFR     LIBRN                                                      B 000               82
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
523  5 11           JOB   1401 AUTOCODER-PASS 7 PROCESS EX/END -VERSION 3
524  5 12           ORG   ISIOCS                                                 0794
525  5 13   *
526  5 14   * EX, END CARDS
527  5 15   *
528  5 16   EXEND  MCW   'B',INOP                                      7  0794  M D12 293           85
529  5 17           MCW   'B',HOLDH+1                                  7  0801  M D12 D93           85
530  5 18           BCE   SETAOP,TYPE,C                                8  0808  B 830 075 C         85
531  5 19           MCW   '/     080',INBOP                            7  0816  M D21 301           85
532  5 20           MCW   '/   080',HOLDH+7                            7  0823  M D28 D99           85
533  5 21   SETAOP MCW   AOP,INAOP                                    7  0830  M 070 297           86
534  5 22           MCW   AOP,HOLDH+4                                  7  0837  M 070 D96           86
535  5 23           BCE   SYMUND,AOP,=                                 8  0844  B L09 070 =         86
536  5 24           B     SETLOC                                       4  0852  B U18               86
537  5 25           B     CONDNS                                       4  0856  B L54               86
538  5 26           B     PRNTLN                                       4  0860  B Y54               86
539  5 27           BCE   GETOV1,TYPE,C                               8  0864  B Z63 075 C         87
540  5 28           CC    1                                            2  0872  F 1                 87
541  5 29           MCW   '1',200                                     7  0874  M D29 200           87
542  5 30           MCS   ERRCNT,PRINT+4                              7  0881  Z C66 204           87
543  5 31           C     PRINT+4,BLANK4=4                           7  0888  C 204 D33           87
544  5 32           BU    SETERH                                       5  0895  B 945 /             87
545  5 33   TSTCOR BW    EOJOB,ADDRSW=1                               8  0900  V 928 D34 1         88
546  5 34           MCW   WORD1,PRINT+20                             7  0908  M S49 220           88
547  5 35           B     WTAPE                                        4  0915  B J24               88
548  5 36           BW    *+2,LSTOP                                    8  0919  V 928 C70 1         88
549  5 37           W                                                  1  0927  2                   88
550  5 38   EOJOB  BW    RESET,TAPCP                                  8  0928  V 543 C69 1         88
551  5 39           WTM   3                                            5  0936  U (U3 M             89
552  5 40           B     RESET                                        4  0941  B 543               89
553  5 41   SETERH MCW   'ERRORS',PRINT+11                            7  0945  M D40 211           89
554  5 42           C     PRINT+4,'   1'                             7  0952  C 204 D44           89
555  5 43           BU    *+8                                          5  0959  B 971 /             89
556  5 44           MCW   BLANK1,PRINT+11                            7  0964  M D30 211           89
557  5 45           B     WTAPE                                        4  0971  B J24               89
558  5 46           BW    *+2,LSTOP                                    8  0975  V 984 C70 1         90
559  5 47           W                                                  1  0983  2                   90
560  5 48           CS    PRINT+11                                     4  0984  / 211               90
561  5 49           B     TSTCOR                                       4  0988  B 900               90
562  5 50   *
563  5 51   * CONDENSE EX, END CARDS
564  5 52   *
565  5 53   NOCARD C     WMLOC,AWMSTR                                 7  0992  C C75 C78           90
566  5 54           BE    TSTEND                                       5  0999  B ‡20 S             90
567  5 55           CW    NEWSW                                        4  1004  ) G27               90
568  5 56   ENDRTN BW    NOCARD,NEWSW                                 8  1008  V 992 G27 1         91
569  5 57           B     PNCHCD                                       4  1016  B P62               91
570  5 58   TSTEND BCE   EXCUTE,TYPE,C                               8  1020  B ‡57 075 C         91
571  5 59           CS    PUNCH+71                                     4  1028  / 171               91
572  5 60           MCW   HOLDH+7,PUNCH+46                           7  1032  M D99 146           91
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SEQ  PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
573   5 61           MCS   PUNCH+75,CARDNO                                     7  1039  Z 175 314           91
574   5 62           SBR   PNHXT+3,LSTCD                                       7  1046  H Q90 S11           92
575   5 63           B     TSTPCH                                              4  1053  B Q21               92
576   5 64   EXCUTE  MCE   WMSTR,PUNCH+71                                     7  1057  E D11 171           92
577   5 65           MCW   'NOOOOOO',PUNCH+46                                7  1064  M D51 146           92
578   5 66           MCW   HOLDH+4,PUNCH+71                                   7  1071  M D96 171           92
579   5 67           MCS   PUNCH+75,CARDNO                                    7  1078  Z 175 314           92
580   5 68           SBR   PNHXT+3,EXOUT                                     7  1085  H Q90 #96           93
581   5 69           B     TSTPCH                                              4  1092  B Q21               93
582   5 70   *
583   5 71   * PUNCH COMPATIBILITY CARDS
584   5 72   *
585   5 73   EXOUT   CS    PUNCH+71                                            4  1096  / 171               93
586   5 74           B     READOG                                              4  1100  B B09               93
587   5 75           BSP   ORIGTP                                              5  1104  U (U4 B             93
588   5 76           C     MNEMON-2,'JOB'                                      7  1109  C H48 D54           93
589   5 77           BU    *+8                                                 5  1116  B /28 /             93
590   5 78           MCW   IMAGE+80,PUNCH+80                                   7  1121  M I10 180           94
591   5 79           MCW   WORD2,PUNCH+39                                      7  1128  M S88 139           94
592   5 80           LCA   WORD3,PUNCH+66                                      7  1135  L S99 166           94
593   5 81           MCW   PUNCH+66,PUNCH+50                                   7  1142  M 166 150           94
594   5 82           BCE   *+2,CONDSW,0                                        8  1149  B /58 C10 0         94
595   5 83           P                                                         1  1157  4                   94
596   5 84           B     WTAP2                                               4  1158  B +43               95
597   5 85           CS    PUNCH+66                                            4  1162  / 166               95
598   5 86           A     +1,PUNCH+75                                         7  1166  A D55 175           95
599   5 87           MCW   WORD4,PUNCH+21                                      7  1173  M T20 121           95
600   5 88           MCW   WORD5,PUNCH+71                                      7  1180  M T31 171           95
601   5 89           SBR   PNHXT+3,OUTEX                                      7  1187  H Q90 S26           95
602   5 90           BCE   *+2,CONDSW,0                                        8  1194  B S03 C10 0         96
603   5 91           P                                                         1  1202  4                   96
604   5 92           B     WTAP2                                               4  1203  B +43               96
605   5 93           B     NEWCRD                                              4  1207  B Q34               96
606   5 94   LSTCD   CS    PUNCH+80                                            4  1211  / 180               96
607   5 95           BCE   *+4,CONDSW,0                                        8  1215  B S26 C10 0         96
608   5 96           P                                                         1  1223  4                   96
609   5 97           SS    8                                                   2  1224  K 8                 97
610   5 98   OUTEX   B     CNDOUT+7                                            4  1226  B +14               97
611   5 99   WORD1   DCW   'OBJECT CORE EXCEEDED'                             20  1249                      97
612   6 00   WORD2   DCW   ',015022)024056,029036,040047,0540611001'          39  1288                      98
613   6 01   WORD3   DCW   ',0010088001'                                      11  1299                      99
614   6 02   WORD4   DCW   ',068072)063067/061039'                            21  1320                      99
615   6 03   WORD5   DCW   ',0010011C4C'                                      11  1331                     100
616   6 04   OV2GM   DCW   ' '                                                 1  1332                     100
617   6 05           XFR   LIBRN                                                     B 000                  101
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
618  6 06          JOB   1401 AUTOCODER-PASS 7 LEFT MAIN LINE  -VERSION 3
619  6 07   *
620  6 08   * READ SECOND HALF OF MAIN PROGRAM
621  6 09   *
622  6 10          ORG   201                                                 0201
623  6 11   INIT2  RTW   SYSTAP,2000                               8  0201  L (U1 -00 R       104
624  6 12          NOP   XXXX                                      4  0209  N 000             104
625  6 13          BER   TPERR                                     5  0213  B 334 L           104
626  6 14          RTW   XTRATP,SAVCON                           8  0218  L (U6 B98 R       104
627  6 15          NOP   XXXX                                      4  0226  N 000             104
628  6 16          BER   TPERR                                     5  0230  B 334 L           104
629  6 17          RWD   XTRATP                                    5  0235  U (U6 R           104
630  6 18          CW    GMSAVE,WMSW=1                             7  0240  ) C72 D56         105
631  6 19          CW    ENDE1,ENDE2                               7  0247  ) Z94 H27         105
632  6 20          SW    GM,181                                    7  0254  , 333 181         105
633  6 21          SW    OV1GM                                     4  0261  , U17             105
634  6 22          WTW   XTRATP,ISIOCS                           8  0265  L (U6 794 W       105
635  6 23          NOP   XXXX                                      4  0273  N 000             105
636  6 24          BER   TPERR                                     5  0277  B 334 L           106
637  6 25          RWD   XTRATP                                    5  0282  U (U6 R           106
638  6 26          CW    OV1GM                                     4  0287  ) U17             106
639  6 27          ZA    +5,LINCT                                  7  0291  + D57 F13         106
640  6 28          BCE   RESET,NOOUT,1                            8  0298  B 543 C71 1       106
641  6 29          B     GET                                       4  0306  B A24             106
642  6 30          B     SETUP                                     4  0310  B 595             106
643  6 31          DCW   ' '                                       1  0314                    107
644  6 32   *
645  6 33   * MAIN LINE PROGRAM
646  6 34   *
647  6 35          ORG   333                                                 0333
648  6 36   GM     DC    ' '                                       1  0333                    108
649  6 37   *
650  6 38   * TAPE REDUNDANCY ROUTINE
651  6 39   *
652  6 40   TPERR  SBR   XR2                                       4  0334  H 094             108
653  6 41          SBR   REDXT+3                                   4  0338  H 406             108
654  6 42          MZ    PLUS9,XR2                                 7  0342  Y 538 094         108
655  6 43          MCW   4000-10+X2,TPINST+7                       7  0349  M IR0 397         108
656  6 44          MN    TPINST+3,BSP1+3                           7  0356  D 393 373         109
657  6 45          MCW   TPINST+7,INST2+7                         7  0363  M 397 506         109
658  6 46   BSP1   BSP   INITAP                                    5  0370  U (U0 B           109
659  6 47          BCE   WRTRED,TPINST+7,W                        8  0375  B 479 397 W       109
660  6 48          MCW   PLUS9,READCT                            7  0383  M 538 540         109
661  6 49   TPINST RT    INITAP,XXXX                               8  0390  M (U0 000 R       110
662  6 50          BER   RDRERR                                    5  0398  B 407 L           110
663  6 51   REDXT  B     XXXX                                      4  0403  B 000             110
664  6 52   RDRERR MN    TPINST+3,BSP2+3                           7  0407  D 393 417         110
665  6 53   BSP2   BSP   INITAP                                    5  0414  U (U0 B           110
666  6 54          S     PLUS1,READCT                              7  0419  S 539 540         110
667  6 55          BWZ   TPINST,READCT,B                           8  0426  V 390 540 B       111
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
668   6 56           MN    TPINST+3,TPHALT+6                   7  0434  D 393 447           111
669   6 57   TPHALT  H     XXXX,790                            7  0441  . 000 790           111
670   6 58           MCW   TPINST+7,*+8                        7  0448  M 397 462           111
671   6 59           RT    INITAP,XXXX                         8  0455  M (U0 000 R         111
672   6 60           BSS   BSP1,E                              5  0463  B 370 E             112
673   6 61           H     XXXX,712                            7  0468  . 000 712           112
674   6 62           B     REDXT                               4  0475  B 403               112
675   6 63   WRTRED  SKP   SYSTAP                              5  0479  U (U1 E             112
676   6 64           BCE   SUBCTR,WRTCTR-1,5                   8  0484  B 516 541 5         112
677   6 65           A     PLUS1,WRTCTR                        7  0492  A 539 542           112
678   6 66   INST2   WT    INITAP,XXXX                         8  0499  M (U0 000 W         113
679   6 67           BER   BSP1                                5  0507  B 370 L             113
680   6 68           B     REDXT                               4  0512  B 403               113
681   6 69   SUBCTR  S     WRTCTR                              4  0516  S 542               113
682   6 70           MN    TPINST+3,*+7                        7  0520  D 393 533           113
683   6 71           H     XXXX,760                            7  0527  . 000 760           113
684   6 72           B     INST2                               4  0534  B 499               113
685   6 73   PLUS9   DCW   +9                                  1  0538                      114
686   6 74   PLUS1   DCW   +1                                  1  0539                      114
687   6 75   READCT  DCW   =1                                  1  0540                      114
688   6 76   WRTCTR  DCW   =2                                  2  0542                      114
689   6 77   *
690   6 78   * GET PASS F
691   6 79   *
692   6 80   RESET   LCA   SSAVE,201                          7  0543  L C68 201           114
693   6 81           LCA                                       1  0550  L                   114
694   6 82           RT    SYSTAP,332                          8  0551  M (U1 332 R         114
695   6 83           CW    181,333                             7  0559  ) 181 333           115
696   6 84           RTW   SYSTAP,2000                         8  0566  L (U1 -00 R         115
697   6 85           NOP   XXXX                                4  0574  N 000               115
698   6 86           BER   TPERR                               5  0578  B 334 L             115
699   6 87           MCW   201,2001                            7  0583  M 201 -01           115
700   6 88           MCW                                       1  0590  M                   115
701   6 89           B     2002                                4  0591  B -02               115
702   6 90   *
703   6 91   * BEGIN MAIN LINE PROGRAM
704   6 92   *
705   6 93   SETUP   CS    PRINT+132                           4  0595  / 332               116
706   6 94           CS                                        1  0599  /                   116
707   6 95   GETORG  B     READOG                              4  0600  B B09               116
708   6 96   *
709   6 97   * DETERMINE TYPE
710   6 98   *
711   6 99   ANALWK  SW    TYPESW=1                            4  0604  , D58               116
712   7 00           MN    TYPE,TYPEA=1                        7  0608  D 075 D59           116
713   7 01           BCE   BYPASS,TYPE,(                       8  0615  B S85 075 (         116
714   7 02           BCE   BYPASS,TYPE,8                       8  0623  B S85 075 8         116
715   7 03           BCE   BYPASS,TYPE,I                       8  0631  B S85 075 I         117
716   7 04           BCE   BYPASS,TYPE,H                       8  0639  B S85 075 H         117
717   7 05           BCE   PROWRK,ALTER,                       8  0647  B 881 080           117
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
718   7 06   ANALOG  BCE   SETCOM,LABEL-5,*                    8  0655  B J72 H36 *         117
719   7 07           BCE   MACPNT,IMAGE+75,R                   8  0663  B 805 I05 R         118
720   7 08           BCE   ISIOCS,IMAGE+75,W                   8  0671  B 794 I05 W         118
721   7 09           BCE   MACPNT+7,IMAGE+75,S                 8  0679  B 812 I05 S         118
722   7 10           BCE   MACPNT+7,IMAGE+75,Z                 8  0687  B 812 I05 Z         118
723   7 11           C     MNEMON-2,'JOB'                      7  0695  C H48 D54           118
724   7 115          BE    DOJOB                               5  0702  B 843 S             119
725   7 12           C     ALTER,ALTNO                         7  0707  C 080 I14           119
726   7 13           BU    SEQERR                              5  0714  B +83 /             119
727   7 14           B     SETFRE                              4  0719  B T01               119
728   7 15           CW    TYPESW                              4  0723  ) D58               119
729   7 16           BCE   INSTR,TYPE,                        8  0727  B V43 075           119
730   7 17           MN    TYPE,XR2                            7  0735  D 075 094           120
731   7 18           A     XR2                                 4  0742  A 094               120
732   7 19           A     XR2                                 4  0746  A 094               120
733   7 20           B     *+1+X2                              4  0750  B 7N4               120
734   7 21           B     DA                                  4  0754  B W52               120
735   7 22           B     CONST                               4  0758  B ǂ62               120
736   7 23           B     DSA                                 4  0762  B 969               120
737   7 24           B     GETOV2                              4  0766  B +94               121
738   7 25           B     SFX                                 4  0770  B L43               121
739   7 26           B     TYPERR                              4  0774  B S78               121
740   7 27           B     ORG                                 4  0778  B K12               121
741   7 28           B     DS                                  4  0782  B K85               121
742   7 29           B     TYPERR                              4  0786  B S78               121
743   7 30           B     TYPERR                              4  0790  B S78               121
744   7 31   *
745   7 32   * MACRO CARD
746   7 33   *
747   7 34   ISIOCS MCW   'IOCS',KIND-1                       7  0794  M D63 308           122
748   7 35          B     MACPNT+7                            4  0801  B 812               122
749   7 36   MACPNT MCW   'MACRO',KIND                        7  0805  M D68 309           122
750   7 37          B     SETFRE                              4  0812  B T01               122
751   7 38          BCE   CALERR,IMAGE+86,7                   8  0816  B 828 I16 7         122
752   7 39          B     COMXT                               4  0824  B J85               122
753   7 40   CALERR MCW   'OVERCALL',PRINT+123                7  0828  M D76 323           123
754   7 41          B     BMPERR                              4  0835  B L28               123
755   7 42          B     COMXT                               4  0839  B J85               123
756   7 43   *
757   7 44   * NEW JOB CARD
758   7 45   *
759   7 46   DOJOB  MCW   OPERND,JOB                          7  0843  M I02 C62           123
760   7 47          BW    DOIDT,NEWSW                         8  0850  V 862 G27 1         123
761   7 48          B     PNCHCD                              4  0858  B P62               123
762   7 49   DOIDT  MCW   IMAGE+80,PUNCH+80                   7  0862  M I10 180           124
763   7 50          S     LINCT                               4  0869  S F13               124
764   7 51          B     PRTHDG                              4  0873  B -00               124
765   7 52          B     MACPNT+7                            4  0877  B 812               124
766   7 53   *
767   7 54   * PROGRAM GENERATED RECORD
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SEQ  PG LIN  LABEL   OP     OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
768   7 55    *
769   7 56    PROWRK  BCE    XTRA,TYPE,Y                        8  0881  B 924 075 Y       124
770   7 57            CW     OP+1                               4  0889  ) 068             124
771   7 58            MCS    AOP,PRINT+11                       7  0893  Z 070 211         124
772   7 59            SW     OP+1                               4  0900  , 068             125
773   7 60            BCE    ADCON,TYPE,S                       8  0904  B 944 075 S       125
774   7 61            BCE    LITRAL,TYPEA,1                     8  0912  B 999 059 1       125
775   7 62            B      TYPERR                             4  0920  B S78             125
776   7 63    *
777   7 64    * LITERAL GREATER THAN 30 CHARACTERS
778   7 65    *
779   7 66    XTRA    SW     PRINT+27                           4  0924  , 227             125
780   7 67            MCW    FIXFRM+72,OPRAND                   7  0928  M 072 278         125
781   7 68            CHAIN  5                                                MACRO
782                   MCW                                       1  0935  M         GEN     125
783                   MCW                                       1  0936  M         GEN     126
784                   MCW                                       1  0937  M         GEN     126
785                   MCW                                       1  0938  M         GEN     126
786                   MCW                                       1  0939  M         GEN     126
787   7 69            B      BYPASS                             4  0940  B S85             126
788   7 70    *
789   7 71    * ADCON CARD
790   7 72    *
791   7 73    ADCON   MCW    'ADCON',KIND                       7  0944  M D81 309         126
792   7 74            SW     PRINT+27                           4  0951  , 227             126
793   7 75            MCW    FIXFRM+53,PRINT+40                 7  0955  M 053 240         127
794   7 76            MCW    FIXFRM+16,OPCODE-2                 7  0962  M 016 223         127
795   7 77    DSA     MCW    BOP,PRINT+95                       7  0969  M 073 295         127
796   7 78            MCW    BOP,HOLDH+3                        7  0976  M 073 D95         127
797   7 79            B      SETADD                             4  0983  B S45             127
798   7 80            BCE    SYMUND,BOP,=                       8  0987  B L09 073 =       128
799   7 81            B      SETLIT                             4  0995  B /56             128
800   7 82    *
801   7 83    * LITERAL + AREA DEFINITION CARDS
802   7 84    *
803   7 85    LITRAL  BWZ    PROLIT,TYPE,S                      8  0999  V ‡41 075 S       128
804   7 86            BWZ    DADC,FIXFRM+1,B                    8  1007  V S28 001 B       128
805   7 87            MCW    'RMARK',KIND                       7  1015  M D86 309         128
806   7 88            BCE    PROLIT+7,TYPE,A                    8  1022  B ‡48 075 A       129
807   7 89            MCW    'G',KIND-4                         7  1030  M D87 305         129
808   7 90            B      PROLIT+7                           4  1037  B ‡48             129
809   7 91    PROLIT  MCW    'LIT',KIND-2                       7  1041  M D90 307         129
810   7 92            MCW    FIXFRM+53,PRINT+57                 7  1048  M 053 257         129
811   7 93            MCW    FIXFRM+16,OPCODE-2                 7  1055  M 016 223         130
812   7 94    CONST   B      SETADD                             4  1062  B S45             130
813   7 95            A      '00',COUNT                         7  1066  A D92 007         130
814   7 96            C      COUNT,'00'                         7  1073  C 007 D92         130
815   7 97            BL     GOOD                               5  1080  B ‡96 T           130
816   7 98            MZ     ZONE-1,STSTMT                      7  1085  Y 188 005         130
817   7 99            B      SETLIT                             4  1092  B /56             131
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
818   8 00   GOOD    BCE   AREADF,PRINT+27,=                    8  1096  B /83 227 =         131
819   8 01           BWZ   AREADF,FIXFRM+4,B                   8  1104  V /83 004 B         131
820   8 02           MCW   OPRAND,HOLDDT-1                      7  1112  M 278 E43           131
821   8 03           BCE   SETLIT,PRINT+27,'                    8  1119  B /56 227 '         131
822   8 04           BWZ   UNSIGN,PRINT+27,2                    8  1127  V /72 227 2         132
823   8 05           MCW   COUNT,XR1                            7  1135  M 007 089           132
824   8 06           MZ    BLANK4,PRINT+27+X1                   7  1142  Y D33 2S7           132
825   8 07           MZ    PRINT+27,HOLDH+X1                    7  1149  Y 227 DZ2           132
826   8 08   SETLIT  B     SETLOC                               4  1156  B U18               132
827   8 09           B     CONDNS                               4  1160  B L54               132
828   8 10   LITOUT  B     PRNTLN                               4  1164  B Y54               133
829   8 11           B     BYPASS                               4  1168  B S85               133
830   8 12   UNSIGN  MCW   OPRAND,HOLDDT=52                     7  1172  M 278 E44           133
831   8 13           B     SETLIT                               4  1179  B /56               133
832   8 14   AREADF  BW    *+5,TYPESW                           8  1183  V /95 D58 1         133
833   8 15           B     SETLIT                               4  1191  B /56               133
834   8 16           MCW   FIXFRM+13,LAB                        7  1195  M 013 219           133
835   8 17           MCW   BLANK4-2,PRINT+31                   7  1202  M D31 231           134
836   8 18           MCW   COUNT                                4  1209  M 007               134
837   8 19           MCW   '='                                  4  1213  M E45               134
838   8 20           MCW   'AREA',KIND-1                        7  1217  M E49 308           134
839   8 21           B     SETLIT                               4  1224  B /56               134
840   8 22   DADC    B     SETADD                               4  1228  B S45               134
841   8 23           B     CONDNS                               4  1232  B L54               134
842   8 24           CS    PRINT+132                            4  1236  / 332               135
843   8 25           CS                                         1  1240  /                   135
844   8 26           B     BYPASS                               4  1241  B S85               135
845   8 27   *
846   8 28   * SET CONDENSE ADDRESSES FOR CONSTANTS
847   8 29   *
848   8 30   SETADD SBR    ADDXT+3                              4  1245  H S77               135
849   8 31           ZA    LABADD,LOADAD                        7  1249  + 061 E83           135
850   8 32           MCW   LOADAD                               4  1256  M E83               135
851   8 33           S     COUNT,WMADDR                         7  1260  S 007 E78           135
852   8 34           A     +1,WMADDR                            7  1267  A D55 E78           136
853   8 35   ADDXT   B     XXXX                                 4  1274  B 000               136
854   8 36   *
855   8 37   * GET NEXT RECORDS
856   8 38   *
857   8 39   TYPERR H      XXXX,770                             7  1278  . 000 770           136
858   8 40   BYPASS B      GET                                  4  1285  B A24               136
859   8 41           BW    ANALWK,TYPESW                        8  1289  V 604 D58 1         136
860   8 42           B     GETORG                               4  1297  B 600               136
861   8 43   *
862   8 44   * FREE FORM RECORD TO PRINT AREA
863   8 45   *
864   8 46   SETFRE SBR    FREEXT+3                             4  1301  H T89               136
865   8 47           MCS   ALTNO,ALT                            7  1305  Z I14 204           137
866   8 48           MCS   PAGENO,PG                            7  1312  Z H32 207           137
867   8 49           MZ    PAGENO,PG                            7  1319  Y H32 207           137
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
868   8 50           MCW   LINENO,LIN                                   7  1326  M H35 211           137
869   8 51           MCW   LABEL,LAB                                    7  1333  M H41 219           137
870   8 52           MCW   MNEMON,OPCODE                                7  1340  M H50 225           138
871   8 53           MCW   OPERND,OPRAND                                7  1347  M I02 278           138
872   8 54           BCE   IOGEN,IMAGE+75,Z                            8  1354  B T90 I05 Z         138
873   8 55           BCE   IOGEN,IMAGE+75,Y                            8  1362  B T90 I05 Y         138
874   8 56           BCE   GENSTM,IMAGE+75,C                           8  1370  B T97 I05 C         138
875   8 57           BCE   GENSTM,IMAGE+75,S                           8  1378  B T97 I05 S         139
876   8 58   FREEXT  B     XXXX                                        4  1386  B 000               139
877   8 59   IOGEN   MCW   'IO',KIND                                   7  1390  M E51 309           139
878   8 60   GENSTM  MCW   'GEN',KIND-2                                7  1397  M E54 307           139
879   8 61           BCE   COMERR,IMAGE+86,B                          8  1404  B J97 I16 B         139
880   8 62           B     FREEXT                                      4  1412  B T86               139
881   8 63           DCW   ' '                                         1  1416                      139
882   8 64   OV1GM   DC    ' '                                         1  1417                      140
883   8 65   *
884   8 66   * ASSEMBLED INFORMATION TO PRINT AREA
885   8 67   *
886   8 68   SETLOC  SBR   LOCXT+3                                     4  1418  H V01               140
887   8 69           MCS   COUNT,CT                                    7  1422  Z 007 284           140
888   8 70           MCW   SFXCTR,SUFFIX                               7  1429  M G18 280           140
889   8 71           MN    LABADD,LOCN                                 7  1436  D 061 290           140
890   8 72           MCW                                               1  1443  M                   141
891   8 73           BWZ   TSTFR,LABADD-1,2                            8  1444  V U66 060 2         141
892   8 74           MCW   'X',PRINT+92                                7  1452  M E55 292           141
893   8 75           MZ    BLANK1,PRINT+89                             7  1459  Y D30 289           141
894   8 76   TSTFR   BCE   FOURCH,LABADD-4,0                           8  1466  B V02 057 0         141
895   8 77   TSTLBL  BM    DBLDEF,STLABL                               8  1474  V V13 002 K         141
896   8 78   TSTSTM  BM    STMBAD,STSTMT                               8  1482  V V28 005 K         142
897   8 79           BWZ   STMBAD,STSTMT,S                             8  1490  V V28 005 S         142
898   8 80   LOCXT   B     XXXX                                        4  1498  B 000               142
899   8 81   FOURCH  MCW   BLANK1,LOCN-4                               7  1502  M D30 286           142
900   8 82           B     TSTLBL                                      4  1509  B U74               142
901   8 83   DBLDEF  MCW   'LABEL',PRINT+120                           7  1513  M E60 320           142
902   8 84           B     BMPERR                                      4  1520  B L28               143
903   8 85           B     TSTSTM                                      4  1524  B U82               143
904   8 86   STMBAD  MCW   'BAD STATEMENT',PRINT+128                   7  1528  M E73 328           143
905   8 87           B     BMPERR                                      4  1535  B L28               143
906   8 88           B     LOCXT                                       4  1539  B U98               143
907   8 89   *
908   8 90   * INSTRUCTION CARD
909   8 91   *
910   8 92   INSTR   MCW   DMOD,INDMOD                                7  1543  M 074 303           143
911   8 93           MCW   BOP,INBOP                                   7  1550  M 073 301           143
912   8 94           MCW   AOP,INAOP                                   7  1557  M 070 297           144
913   8 95           MCW   OP,INOP                                     7  1564  M 067 293           144
914   8 96           MCW   DMOD,HOLDH+8                               7  1571  M 074 E00           144
915   8 97           MCW                                               1  1578  M                   144
916   8 98           MCW                                               1  1579  M                   144
917   8 99           MCW                                               1  1580  M                   144
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
918   9 00           MCW   LABADD,WMADDR=5                     7  1581  M 061 E78           144
919   9 01           MCW   LABADD,LOADAD=5                     7  1588  M 061 E83           145
920   9 02           A     COUNT,LOADAD                        7  1595  A 007 E83           145
921   9 03           S     +1,LOADAD                           7  1602  S D55 E83           145
922   9 04           BCE   SYMUND,BOP,=                        8  1609  B L09 073 =         145
923   9 05           BCE   SYMUND,AOP,=                        8  1617  B L09 070 =         145
924   9 06           BCE   BADOP,OP,                           8  1625  B W37 067           146
925   9 07           B     SETLIT                              4  1633  B /56               146
926   9 08   BADOP   MCW   ' OP',PRINT+123                     7  1637  M E86 323           146
927   9 09           B     BMPERR                              4  1644  B L28               146
928   9 10           B     SETLIT                              4  1648  B /56               146
929   9 11   *
930   9 12   * DEFINE AREA CARDS
931   9 13   *
932   9 14   DA      BCE   HEADER,TYPE,0                       8  1652  B X41 075 0         146
933   9 15           MCW   SUPADD,WMADDR                       7  1660  M 066 E78           147
934   9 16           MCW   'FIELD',KIND                        7  1667  M E91 309           147
935   9 17           BWZ   SETDA,TYPE,B                       8  1674  V W93 075 B         147
936   9 18           MCW   'SBF',KIND-2                        7  1682  M E94 307           147
937   9 19           B     ORGXT                               4  1689  B K62               147
938   9 20   SETDA   B     SETLOC                              4  1693  B U18               147
939   9 21           B     CONDNS                              4  1697  B L54               148
940   9 22           B     PRNTLN                              4  1701  B Y54               148
941   9 23   BYPDA   B     GET                                 4  1705  B A24               148
942   9 24           BCE   RPTOUT,TYPE,‡                       8  1709  B X21 075 ‡         148
943   9 25           B     GETORG                              4  1717  B 600               148
944   9 26   RPTOUT  MCW   SUPADD,WMADDR                       7  1721  M 066 E78           148
945   9 27           B     CONDNS                              4  1728  B L54               148
946   9 28           CS    PRINT+132                           4  1732  / 332               149
947   9 29           CS                                        1  1736  /                   149
948   9 30           B     BYPDA                               4  1737  B X05               149
949   9 31   HEADER  BWZ   BADDA,FIXFRM+4,B                    8  1741  V Y24 004 B         149
950   9 32           B     SETLOC                              4  1749  B U18               149
951   9 33   NXTRPT  MN    SUPADD,PRINT+97                     7  1753  D 066 297           149
952   9 34           MCW                                       1  1760  M                   149
953   9 35           MCW   LABADD,WMADDR                       7  1761  M 061 E78           150
954   9 36           B     CONDNS                              4  1768  B L54               150
955   9 37           B     GET                                 4  1772  B A24               150
956   9 38           C     FIXFRM+16,'CA '                     7  1776  C 016 E97           150
957   9 39           BU    PNTDA                               5  1783  B X96 /             150
958   9 40           BCE   NXTRPT,TYPE,‡                       8  1788  B X53 075 ‡         150
959   9 41   PNTDA   BCE   ADDR4K,PRINT+93,0                   8  1796  B Y39 293 0         151
960   9 42           C     PRINT+97,OBJCOR                     7  1804  C 297 C09           151
961   9 43           BL    PUADSW                              5  1811  B K97 T             151
962   9 44           B     PRNTLN                              4  1816  B Y54               151
963   9 45           B     GETORG                              4  1820  B 600               151
964   9 46   BADDA   MCW   ' NO B X L',PRINT+129               7  1824  M F06 329           151
965   9 47           B     BMPERR                              4  1831  B L28               151
966   9 48           B     HEADER+8                            4  1835  B X49               152
967   9 49   ADDR4K  SBR   AD4KXT+3                           4  1839  H Y53               152
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
968   9 50           MCW   BLANK1,PRINT+93                     7  1843  M D30 293           152
969   9 51   AD4KXT  B     XXXX                                4  1850  B 000               152
970   9 52   *
971   9 53   * PRINT STATEMENTS
972   9 54   *
973   9 55   PRNTLN  SBR   PRNTXT+3                            4  1854  H Z50               152
974   9 56           BCE   DOPNT,LOCN,                         8  1858  B Y86 290           152
975   9 57           BCE   DOPNT,TYPEA,7                       8  1866  B Y86 D59 7         152
976   9 58           C     LOCN,' 0081'                        7  1874  C 290 F11           153
977   9 59           BH    ADDERR                              5  1881  B J57 U             153
978   9 60   DOPNT   BW    *+2,LSTOP                           8  1886  V Y95 C70 1         153
979   9 61           W                                         1  1894  2                   153
980   9 62           B     WTAPE                               4  1895  B J24               153
981   9 63           BCE   CLR,TYPEA,7                       8  1899  B Z19 D59 7         153
982   9 64           C     LOCN,OBJCOR                         7  1907  C 290 C09           154
983   9 65           BL    PUADSW                              5  1914  B K97 T             154
984   9 66   CLR     CS    PRINT+132                           4  1919  / 332               154
985   9 67           CS                                        1  1923  /                   154
986   9 68           BCE   PRNTXT,TYPE,3                       8  1924  B Z47 075 3         154
987   9 69           A     +1,LINCT=2                          7  1932  A D55 F13           154
988   9 70           BCE   OVRFLO,LINCT-1,5                   8  1939  B Z51 F12 5         155
989   9 71   PRNTXT  B     XXXX                                4  1947  B 000               155
990   9 72   OVRFLO  B     PRTHDG                              4  1951  B -00               155
991   9 73           S     LINCT                               4  1955  S F13               155
992   9 74           B     PRNTXT                              4  1959  B Z47               155
993   9 75   GETOV1  RTW   XTRATP,ISIOCS                       8  1963  L (U6 794 R         155
994   9 76           NOP   XXXX                                4  1971  N 000               155
995   9 77           BER   TPERR                               5  1975  B 334 L             156
996   9 78           CW    OV1GM                               4  1980  ) U17               156
997   9 79           RWD   XTRATP                              5  1984  U (U6 R             156
998   9 80           B     BYPASS                              4  1989  B S85               156
999   9 81           DCW   ' '                                 1  1993                      156
1000  9 82   ENDE1   DCW   ' '                                 1  1994                      156
1001  9 83           XFR   LIBRN                                    B 000               157
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 SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1002  9 84          JOB   1401 AUTOCODER-PASS 7 RIGHT MAIN LINE  -VERSION 3
1003  9 85          ORG   2000                                                      2000
1004  9 86    *
1005  9 87    * PRINT PAGE HEADING
1006  9 88    *
1007  9 89    PRTHDG SBR    PHDGXT+3                                           4  2000  H J23             160
1008  9 90           MCW    'PAGE',PRINT+109                                   7  2004  M F17 309         160
1009  9 91           A      +1,NUMBER                                          7  2011  A D55 C84         160
1010  9 92           MCS    NUMBER,PRINT+114                                   7  2018  Z C84 314         160
1011  9 93           MCW    JOB,OPRAND                                         7  2025  M C62 278         160
1012  9 94           MCW    PUNCH+80,LOCN                                      7  2032  M 180 290         160
1013  9 95           BW     WTHEAD,LSTOP                                       8  2039  V -52 C70 1       161
1014  9 96           CC     1                                                  2  2047  F 1               161
1015  9 97           W                                                         1  2049  2                 161
1016  9 98           CC     K                                                  2  2050  F K               161
1017  9 99    WTHEAD MCW    '1',200                                            7  2052  M D29 200         161
1018 10 00           B      WTAPE                                              4  2059  B J24             161
1019 10 01           CS     PRINT+132                                          4  2063  / 332             161
1020 10 02           CS                                                        1  2067  /                 162
1021 10 03           MCW    'SFX CT  LOCN  INSTRUCTION TYPE  CARD',PRINT+114   7  2068  M F53 314         162
1022 10 04           MCW    'SEQ PG LIN  LABEL  OP    OPERANDS',PRINT+34       7  2075  M F86 234         162
1023 10 05           BW     *+2,LSTOP                                          8  2082  V -91 C70 1       162
1024 10 06           W                                                         1  2090  2                 162
1025 10 07           MCW    '0',200                                            7  2091  M F87 200         162
1026 10 08           B      WTAPE                                              4  2098  B J24             162
1027 10 09           CS     PRINT+132                                          4  2102  / 332             163
1028 10 10           CS                                                        1  2106  /                 163
1029 10 11           BW     *+2,LSTOP                                          8  2107  V J16 C70 1       163
1030 10 12           W                                                         1  2115  2                 163
1031 10 13           B      WTAPE                                              4  2116  B J24             163
1032 10 14    PHDGXT B      XXXX                                               4  2120  B 000             163
1033 10 15    WTAPE  SBR    WTXT+3                                             4  2124  H J56             163
1034 10 16           BW     WTXT,TAPOP                                         8  2128  V J53 C69 1       164
1035 10 17           WT     3,200                                              8  2136  M (U3 200 W       164
1036 10 18           NOP    XXXX                                               4  2144  N 000             164
1037 10 19           BER    TPERR                                              5  2148  B 334 L           164
1038 10 20    WTXT   B      XXXX                                               4  2153  B 000             164
1039 10 21    ADDERR MCW    ' ADDR',PRINT+132                                  7  2157  M F92 332         164
1040 10 22           B      BMPERR                                             4  2164  B L28             165
1041 10 23           B      DOPNT                                              4  2168  B Y86             165
1042 10 24    *
1043 10 25    * COMMENTS CARD
1044 10 26    *
1045 10 27    SETCOM B      SETFRE                                             4  2172  B T01             165
1046 10 28           MCW    OPERND,PRINT+80                                    7  2176  M I02 280         165
1047 10 29           MCW                                                       1  2183  M                 165
1048 10 30           MCW                                                       1  2184  M                 165
1049 10 31    COMXT  B      PRNTLN                                             4  2185  B Y54             165
1050 10 32           B      READOG                                             4  2189  B B09             166
1051 10 33           B      ANALOG                                             4  2193  B 655             166
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1052 10 34   COMERR MCW   'MACRO ERROR',PRINT+126                     7  2197  M G03 326         166
1053 10 35          B     BMPERR                                      4  2204  B L28             166
1054 10 36          B     FREEXT                                      4  2208  B T86             166
1055 10 37   *
1056 10 38   * ORG, LTORG CARDS
1057 10 39   *
1058 10 40   ORG    MCW   SUPADD,LABADD                               7  2212  M 066 061         166
1059 10 41          MCW   ORGADD,SUPADD                               7  2219  M 032 066         166
1060 10 42          BWZ   BADORG,FIXFRM+1,2                           8  2226  V K70 001 2       167
1061 10 43   ORGOUT MN    SUPADD,PRINT+97                             7  2234  D 066 297         167
1062 10 44          MCW                                               1  2241  M                 167
1063 10 45          BCE   ADDR4K,PRINT+93,0                          8  2242  B Y39 293 0       167
1064 10 46          C     PRINT+97,OBJCOR                             7  2250  C 297 C09         167
1065 10 47          BL    PUADSW                                      5  2257  B K97 T           167
1066 10 48   ORGXT  B     SETLOC                                      4  2262  B U18             168
1067 10 49          B     LITOUT                                      4  2266  B /64             168
1068 10 50   BADORG MCW   ' UNDEF ORG',PRINT+130                      7  2270  M G13 330         168
1069 10 51          B     BMPERR                                      4  2277  B L28             168
1070 10 52          B     ORGOUT                                      4  2281  B K34             168
1071 10 53   *
1072 10 54   * DS, EQU CARDS
1073 10 55   *
1074 10 56   DS     BCE   SYMUND,AOP,=                                8  2285  B L09 070 =       168
1075 10 57          B     ORGXT                                       4  2293  B K62             168
1076 10 58   *
1077 10 59   * ERROR - ADDRESS EXCEEDS CORE
1078 10 60   *
1079 10 61   PUADSW SBR   ADSWXT+3                                    4  2297  H L08             169
1080 10 62          CW    ADDRSW                                      4  2301  ) D34             169
1081 10 63   ADSWXT B     XXXX                                        4  2305  B 000             169
1082 10 64   *
1083 10 65   * ERROR - UNDEFINED SYMBOL
1084 10 66   *
1085 10 67   SYMUND SBR   UNDXT+3                                    4  2309  H L27             169
1086 10 68          MCW   ' SYM',PRINT+127                            7  2313  M G17 327         169
1087 10 69          B     BMPERR                                      4  2320  B L28             169
1088 10 70   UNDXT  B     XXXX                                        4  2324  B 000             169
1089 10 71   *
1090 10 72   * BUMP NUMBER OF ERRORS
1091 10 73   *
1092 10 74   BMPERR SBR   ERREXT+3                                   4  2328  H L42             170
1093 10 75          A     +1,ERRCNT                                   7  2332  A D55 C66         170
1094 10 76   ERREXT B     XXXX                                        4  2339  B 000             170
1095 10 77   *
1096 10 78   * SUFFIX CARD
1097 10 79   *
1098 10 80   SFX    MCW   IMAGE+21,SFXCTR=1                           7  2343  M H51 G18         170
1099 10 81          B     LITOUT                                      4  2350  B /64             170
1100 10 82   *
1101 10 83   * CONDENSE ROUTINE
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 SEQ PG LIN  LABEL  OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
1102 10 84   *
1103 10 85   CONDNS SBR   CONDXT+3                      4  2354  H +42             170
1104 10 86          CW    BIGSW,DCSW                   7  2358  ) H17 G48         170
1105 10 87          BM    CONDXT,STSTMT                8  2365  V +39 005 K       171
1106 10 88          BW    PNCHCD,WMSW                  8  2373  V P62 D56 1       171
1107 10 89   *
1108 10 90   * PROCESS RECORD
1109 10 91   *
1110 10 92   NXTRCD BCE   DOWM,TYPEA,0                 8  2381  B N39 D59 0       171
1111 10 93          BCE   ENDRTN,TYPEA,3               8  2389  B ÷08 D59 3       171
1112 10 94          BWZ   TSTDC,TYPE,B                 8  2397  V 017 075 B       172
1113 10 95   *
1114 10 96   * TEST ROOM ON CARD
1115 10 97   *
1116 10 98   TSTROM C     COUNT,'39'                   7  2405  C 007 G20         172
1117 10 99          BL    TSTCON                       5  2412  B Q91 T           172
1118 11 00          MCW   PNHLOC,ROOMCT=3              7  2417  M C81 G23         172
1119 11 01          A     COUNT,ROOMCT                 7  2424  A 007 G23         172
1120 11 02          C     ROOMCT,'039'                 7  2431  C G23 G26         173
1121 11 03          BL    SETPNH                       5  2438  B 009 T           173
1122 11 04          BW    RSTCTR,NEWSW=1               8  2443  V N98 G27 1       173
1123 11 05   *
1124 11 06   * TEST SEQUENCE
1125 11 07   *
1126 11 08          MCW   COUNTR=5,SEQCT=5             7  2451  M G32 G37         173
1127 11 09          A     COUNT,SEQCT                  7  2458  A 007 G37         173
1128 11 10          C     LOADAD,SEQCT                 7  2465  C E83 G37         174
1129 11 11          BU    SETPNH                       5  2472  B 009 /           174
1130 11 12          A     COUNT,COUNTR                 7  2477  A 007 G32         174
1131 11 13   *
1132 11 14   * MOVE DATA TO PUNCH AREA
1133 11 15   *
1134 11 16   MVDATA SBR   XR3,HOLDH                    7  2484  H 099 D92         174
1135 11 17          A     COUNT,XR3                    7  2491  A 007 099         174
1136 11 18          A     COUNT,PNHLOC                 7  2498  A 007 C81         175
1137 11 19          MCW   PNHLOC,XR2                   7  2505  M C81 094         175
1138 11 20          MCW   XXXX+X3,PUNCH+X2            7  2512  M 0+0 1-0         175
1139 11 21          CW    DATASW=1                     4  2519  ) G38             175
1140 11 22          BW    FIRST,NEWSW                  8  2523  V 053 G27 1       175
1141 11 23          BWZ   CNDOUT,TYPE,B                8  2531  V +07 075 B       176
1142 11 24   *
1143 11 25   * SET WORD MARK ADDRESS
1144 11 26   *
1145 11 27   DOWM   MCW   WMADDR,CNVADD=5              7  2539  M E78 G43         176
1146 11 28          B     CNVRT                        4  2546  B P16             176
1147 11 29          A     +3,WMLOC                     7  2550  A G44 C75         176
1148 11 30          MCW   WMLOC,XR1                    7  2557  M C75 089         176
1149 11 31          MCW   CNVADD,WMADDR-2             7  2564  M G43 E76         177
1150 11 32          MCW   WMADDR-2,XXXX+X1            7  2571  M E76 0÷0         177
1151 11 33          C     XR1,+WMSTR-3                 7  2578  C 089 G47         177
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 SEQ PG LIN  LABEL   OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1152 11 34           BU    CNDOUT                                    5  2585  B +07 /           177
1153 11 35           SW    WMSW                                      4  2590  , D56             177
1154 11 36           B     CNDOUT                                    4  2594  B +07             177
1155 11 37   RSTCTR  MCW   LOADAD,COUNTR                            7  2598  M E83 G32         178
1156 11 38           B     MVDATA                                    4  2605  B M84             178
1157 11 39   SETPNH  B     PNCHCD                                    4  2609  B P62             178
1158 11 40           B     NXTRCD                                    4  2613  B L81             178
1159 11 41   TSTDC   BW    COMPWM,NEWSW                              8  2617  V 029 G27 1       178
1160 11 42           B     TSTROM                                    4  2625  B M05             178
1161 11 43   COMPWM  C     WMLOC,AWMSTR                              7  2629  C C75 C78         178
1162 11 44           BE    TSTROM                                    5  2636  B M05 S           179
1163 11 45           SW    DCSW=1                                    4  2641  , G48             179
1164 11 46           B     PNCHCD                                    4  2645  B P62             179
1165 11 47           B     TSTROM                                    4  2649  B M05             179
1166 11 48   *
1167 11 49   * FIRST DATA ON CARD
1168 11 50   *
1169 11 51   FIRST   CW    NEWSW                                     4  2653  ) G27             179
1170 11 52           BWZ   PRODC,TYPE,8                              8  2657  V 069 075 8       179
1171 11 53           B     CNDOUT                                    4  2665  B +07             179
1172 11 54   *
1173 11 55   * CONDENSE DC CARDS
1174 11 56   *
1175 11 57   PRODC   MCW   ')',PUNCH+47                              7  2669  M G49 147         180
1176 11 58           MCW   WMADDR,CNVADD                             7  2676  M E78 G43         180
1177 11 59           B     CNVRT                                     4  2683  B P16             180
1178 11 60           MCW   CNVADD,WMADDR-2                          7  2687  M G43 E76         180
1179 11 61           MCW   WMADDR-2,WMSTR-15                       7  2694  M E76 C96         180
1180 11 62           MCW   WMADDR-2                                  4  2701  M E76             180
1181 11 63           A     +6,WMLOC                                  7  2705  A G50 C75         181
1182 11 64           B     CNDOUT                                    4  2712  B +07             181
1183 11 65   *
1184 11 66   * CONVERT 5 TO 3 DIGIT ADDRESS
1185 11 67   *
1186 11 68   CNVRT   SBR   CNVXT+3                                   4  2716  H P61             181
1187 11 69           BAV   *+1                                       5  2720  B P25 Z           181
1188 11 70   ADDAGN  A     +96,CNVADD-3                              7  2725  A G52 G40         181
1189 11 71           BAV   ADDAGN                                    5  2732  B P25 Z           181
1190 11 72           MZ    CNVADD-4,CNVADD                           7  2737  Y G39 G43         181
1191 11 73           MN    CNVADD-3,*+4                              7  2744  D G40 P54         182
1192 11 74           MZ    ZONE,CNVADD-2                             7  2751  Y 189 G41         182
1193 11 75   CNVXT   B     XXXX                                      4  2758  B 000             182
1194 11 76   *
1195 11 77   * PUNCH A CARD
1196 11 78   *
1197 11 79   PNCHCD  SBR   PNHXT+3                                   4  2762  H Q90             182
1198 11 80           BW    EDIT,DCSW                                 8  2766  V Q07 G48 1       182
1199 11 81           BW    EDIT,DATASW                               8  2774  V Q07 G38 1       182
1200 11 82           MCW   COUNTR,CNVADD                            7  2782  M G32 G43         183
1201 11 83           B     CNVRT                                     4  2789  B P16             183
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 SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1202 11 84           MCW   CNVADD,WMSTR-21                                     7  2793  M G43 C90          183
1203 11 85           MCW   PNHLOC,WMSTR-24                                     7  2800  M C81 C87          183
1204 11 86   EDIT    MCE   WMSTR,PUNCH+71                                      7  2807  E D11 171          183
1205 11 87           MN    '0',PUNCH+41                                        7  2814  D F87 141          183
1206 11 88   TSTPCH  BCE   *+2,CONDSW,0                                        8  2821  B Q30 C10 0        184
1207 11 89           P                                                         1  2829  4                  184
1208 11 90           B     WTAP2                                               4  2830  B +43              184
1209 11 91   *
1210 11 92   * RESET COUNTERS + SWITCHES
1211 11 93   *
1212 11 94   NEWCRD  A     +1,PUNCH+75                                         7  2834  A D55 175          184
1213 11 95           CS    PUNCH+71                                            4  2841  / 171              184
1214 11 96           LCA   'LO     ,      ,      1   ',PUNCH+71               7  2845  L G84 171          184
1215 11 97           SW    NEWSW,DATASW                                        7  2852  , G27 G38          184
1216 11 98           CW    WMSW,DCSW                                           7  2859  ) D56 G48          185
1217 11 99           MCW   '000',PNHLOC                                        7  2866  M G87 C81          185
1218 12 00           MCW   AWMSTR,WMLOC                                        7  2873  M C78 C75          185
1219 12 01           MCW   '00100104004004004004004004004004',WMSTR           7  2880  M H14 D11          185
1220 12 02   PNHXT   B     XXXX                                                4  2887  B 000              185
1221 12 03   *
1222 12 04   * CONSTANT GREATER THAN 39 CHARACTERS
1223 12 05   *
1224 12 06   TSTCON  BW    *+5,NEWSW                                           8  2891  V R03 G27 1        186
1225 12 07           B     PNCHCD                                              4  2899  B P62              186
1226 12 08           MCW   COUNT,HOLDCT=2                                      7  2903  M 007 H16          186
1227 12 09           MCW   LOADAD,COUNTR                                       7  2910  M E83 G32          186
1228 12 10           MCW   '39',COUNT                                          7  2917  M G20 007          186
1229 12 11           S     '39',HOLDCT                                         7  2924  S G20 H16          187
1230 12 12           S     HOLDCT,COUNTR                                       7  2931  S H16 G32          187
1231 12 13           MZ    ZONE-3,HOLDCT                                       7  2938  Y 186 H16          187
1232 12 14           SW    BIGSW=1                                             4  2945  , H17              187
1233 12 15           MCW   WMADDR,SAVEWM=5                                     7  2949  M E78 H22          187
1234 12 16           B     MVDATA                                              4  2956  B M84              187
1235 12 17   BIGRN   B     PNCHCD                                              4  2960  B P62              188
1236 12 18           CW    BIGSW                                               4  2964  ) H17              188
1237 12 19           MCW   HOLDCT,COUNT                                       7  2968  M H16 007          188
1238 12 20           MCW   'A',TYPE                                            7  2975  M H23 075          188
1239 12 21           MCW   HOLDDT,HOLDDT-39                                    7  2982  M E44 E05          188
1240 12 22           MCW   SAVEWM,WMADDR                                       7  2989  M H22 E78          188
1241 12 23           A     '39',WMADDR                                         7  2996  A G20 E78          189
1242 12 24           B     RSTCTR                                              4  3003  B N98              189
1243 12 25   *
1244 12 26   * EXIT FROM CONDENSE ROUTINE
1245 12 27   *
1246 12 28   CNDOUT  MCS   PUNCH+75,CARDNO                                     7  3007  Z 175 314          189
1247 12 29           S     XR3+1                                               4  3014  S 100              189
1248 12 30           S                                                         1  3018  S                  189
1249 12 31           S                                                         1  3019  S                  189
1250 12 32           BW    BIGRN,BIGSW                                         8  3020  V R60 H17 1        189
1251 12 33           MCW   BLANK1,HOLDDT                                       7  3028  M D30 E44          190
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 SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
1252 12 34          MCW   HOLDDT                                    4  3035  M E44             190
1253 12 35   CONDXT  B     XXXX                                      4  3039  B 000             190
1254 12 36   WTAP2   SBR   WT2XT+3                                   4  3043  H +82             190
1255 12 37          BW    WT2XT,TAPCP                               8  3047  V +79 C69 1       190
1256 12 38          MCW   '+',100                                   7  3055  M H24 100         190
1257 12 39          WT    3,100                                     8  3062  M (U3 100 W       191
1258 12 40          NOP   XXXX                                      4  3070  N 000             191
1259 12 41          BER   TPERR                                     5  3074  B 334 L           191
1260 12 42   WT2XT   B     XXXX                                      4  3079  B 000             191
1261 12 43   *
1262 12 44   * SEQUENCE ERROR ON INPUT RECORDS
1263 12 45   *
1264 12 46   SEQERR  H     XXXX,777                                  7  3083  . 000 777         191
1265 12 47          B     SEQERR                                    4  3090  B +83             191
1266 12 48   GETOV2  RTW   SYSTAP,ISIOCS                             8  3094  L (U1 794 R       192
1267 12 49          NOP   XXXX                                      4  3102  N 000             192
1268 12 50          BER   TPERR                                     5  3106  B 334 L           192
1269 12 51          CW    OV2GM                                     4  3111  ) T32             192
1270 12 52          BSP   SYSTAP                                    5  3115  U (U1 B           192
1271 12 53          B     EXEND                                     4  3120  B 794             192
1272 12 54   *
1273 12 55   * GET RECORD FROM WORKING TAPE
1274 12 56   *
1275 12 57   GET     SBR   WORKXT+3                                  4  3124  H B08             192
1276 12 58          C     BLKCT,KBLKNG                              7  3128  C C00 C04         193
1277 12 59          BU    NXTREC                                    5  3135  B A68 /           193
1278 12 60          S     HOLDA                                     4  3140  S C01             193
1279 12 61          SBR   LGTCK+6,INPUT5+13                         7  3144  H B80 I31         193
1280 12 62          RT    WORKTP,INPUT5                             8  3151  M (U5 I18 R       193
1281 12 63          B     CHKLGT                                    4  3159  B B59             193
1282 12 64          BER   TPERR                                     5  3163  B 334 L           194
1283 12 65   NXTREC  A     +80,BLKCT                                 7  3168  A H26 C00         194
1284 12 66          MCW   BLKCT,XR3                                 7  3175  M C00 099         194
1285 12 67          MCW   FIXINP,FIXFRM+80                          7  3182  M IA7 080         194
1286 12 68          CHAIN 10                                                        MACRO
1287                MCW                                             1  3189  M                 GEN  194
1288                MCW                                             1  3190  M                 GEN  194
1289                MCW                                             1  3191  M                 GEN  194
1290                MCW                                             1  3192  M                 GEN  195
1291                MCW                                             1  3193  M                 GEN  195
1292                MCW                                             1  3194  M                 GEN  195
1293                MCW                                             1  3195  M                 GEN  195
1294                MCW                                             1  3196  M                 GEN  195
1295                MCW                                             1  3197  M                 GEN  195
1296                MCW                                             1  3198  M                 GEN  195
1297 12 69          S     XR3+1                                     4  3199  S 100             196
1298 12 70          S                                               1  3203  S                 196
1299 12 71          S                                               1  3204  S                 196
1300 12 72   WORKXT  B     XXXX                                      4  3205  B 000             196
1301 12 73   *
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 SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
1302 12 74   * READ ORIGINAL TAPE
1303 12 75   *
1304 12 76   READOG SBR   ORIGXT+3                            4  3209  H B58              196
1305 12 77          MCW   BLANK1,IMAGE+21                     7  3213  M D30 H51          196
1306 12 78          S     IMAGE+20                            4  3220  S H50              196
1307 12 79          S                                         1  3224  S                  197
1308 12 80          S                                         1  3225  S                  197
1309 12 81          S                                         1  3226  S                  197
1310 12 82          SBR   LGTCK+6,INPUT4+12                   7  3227  H B80 H43          197
1311 12 83          RT    ORIGTP,INPUT4                       8  3234  M (U4 H31 R        197
1312 12 84          B     CHKLGT                              4  3242  B B59              197
1313 12 85          BER   TPERR                               5  3246  B 334 L            197
1314 12 86          S     XR2+1                               4  3251  S 095              198
1315 12 87   ORIGXT B     XXXX                                4  3255  B 000              198
1316 12 88   *
1317 12 89   * CHECK FOR SHORT RECORDS
1318 12 90   *
1319 12 91   CHKLGT SBR   XR2                                 4  3259  H 094              198
1320 12 92          SBR   LGTXT+3                             4  3263  H B97              198
1321 12 93          MZ    'B',XR2                             7  3267  Y D12 094          198
1322 12 94   LGTCK  BCE   4000-12+X2,XXXX,                    8  3274  B IQ8 000          198
1323 12 95          CHAIN 12                                                MACRO
1324                BCE                                       1  3282  B                  GEN  198
1325                BCE                                       1  3283  B                  GEN  199
1326                BCE                                       1  3284  B                  GEN  199
1327                BCE                                       1  3285  B                  GEN  199
1328                BCE                                       1  3286  B                  GEN  199
1329                BCE                                       1  3287  B                  GEN  199
1330                BCE                                       1  3288  B                  GEN  199
1331                BCE                                       1  3289  B                  GEN  199
1332                BCE                                       1  3290  B                  GEN  200
1333                BCE                                       1  3291  B                  GEN  200
1334                BCE                                       1  3292  B                  GEN  200
1335                BCE                                       1  3293  B                  GEN  200
1336 12 96   LGTXT  B     XXXX                                4  3294  B 000              200
1337 12 97   HOLDA  DCW   +0000                               4  3301                     200
1338 12 98   BLKCT  EQU   HOLDA-1                                3300
1339 12 99   KBLKNG DCW   '080'                               3  3304                     200
1340 13 00   OBJCOR DCW   ' 3999'                             5  3309                     201
1341 13 01   CONDSW DCW   '0'                                 1  3310                     201
1342 13 02   JOB    DCW   =52                                52  3362                     203
1343 13 03   ERRCNT DCW   '0000'                              4  3366                     203
1344 13 04          DCW   ' '                                 1  3367                     203
1345 13 05   SSAVE  DCW   ' '                                 1  3368                     203
1346 13 06   TAPOP  DCW   ' '                                 1  3369                     203
1347 13 07   LSTOP  DCW   ' '                                 1  3370                     204
1348 13 08   NOCLT  DCW   ' '                                 1  3371                     204
1349 13 09   SAVCON EQU   HOLDA-3                                3298
1350 13 10   GMSAVE DC    ' '                                 1  3372                     204
1351 13 11   WMLOC  DSA   WMSTR-21                            3  3375  C90                204
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 SEQ PG LIN  LABEL   OP     OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
1352 13 12   AWMSTR  DSA    WMSTR-21                                    3  3378  C90               204
1353 13 13   PNHLOC  DCW    '000'                                       3  3381                    204
1354 13 14   NUMBER  DCW    '001'                                       3  3384                    204
1355 13 15   WMSTR   DCW    '00100104004004004004004004O'              27  3411                    205
1356 13 16           LTORG  *                                                   3412
                    DCW    'B'                                         1  3412        LIT         205
        531                 '/     080'                                 9  3421        LIT         205
        532                 '/   080'                                   7  3428        LIT         206
                            '1'                                         1  3429        LIT         206
        543  BLANK4         =04                                         4  3433        AREA        206
        545  ADDRSW         =01                                         1  3434        AREA        206
        553                 'ERRORS'                                    6  3440        LIT         206
                            '   1'                                      4  3444        LIT         206
        577                 'N000000'                                   7  3451        LIT         206
                            'JOB'                                       3  3454        LIT         207
                            +1                                          1  3455        LIT         207
        630  WMSW           =01                                         1  3456        AREA        207
                            +5                                          1  3457        LIT         207
        711  TYPESW         =01                                         1  3458        AREA        207
        712  TYPEA          =01                                         1  3459        AREA        207
                            'IOCS'                                      4  3463        LIT         207
        749                 'MACRO'                                     5  3468        LIT         208
        753                 'OVERCALL'                                  8  3476        LIT         208
        791                 'ADCON'                                     5  3481        LIT         208
        805                 'RMARK'                                     5  3486        LIT         208
                            'G'                                         1  3487        LIT         208
                            'LIT'                                       3  3490        LIT         208
                            '00'                                        2  3492        LIT         208
        830  HOLDDT         =52                                        52  3544        AREA        210
                            '='                                         1  3545        LIT         210
                            'AREA'                                      4  3549        LIT         210
                            'IO'                                        2  3551        LIT         210
                            'GEN'                                       3  3554        LIT         210
                            'X'                                         1  3555        LIT         211
        901                 'LABEL'                                     5  3560        LIT         211
        904                 'BAD STATEMENT'                            13  3573        LIT         211
        918  WMADDR         =05                                         5  3578        AREA        211
        919  LOADAD         =05                                         5  3583        AREA        211
                            ' OP'                                       3  3586        LIT         211
        934                 'FIELD'                                     5  3591        LIT         211
                            'SBF'                                       3  3594        LIT         212
                            'DA '                                       3  3597        LIT         212
        964                 ' NO B X L'                                 9  3606        LIT         212
        976                 ' 0081'                                     5  3611        LIT         212
        987  LINCT          =02                                         2  3613        AREA        212
                            'PAGE'                                      4  3617        LIT         212
       1021                 'SFX CT  LOCN  INSTRUCTION TYPE  CARD'     36  3653        LIT         213
       1022                 'SEQ PG LIN  LABEL  OP    OPERANDS'       33  3686        LIT         214
                            '0'                                         1  3687        LIT         214
       1039                 ' ADDR'                                     5  3692        LIT         214
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
      1052                'MACRO ERROR'                              11  3703              LIT   215
      1068                ' UNDEF ORG'                               10  3713              LIT   215
                          ' SYM'                                      4  3717              LIT   215
      1098  SFXCTR        =01                                         1  3718              AREA  215
                          '39'                                        2  3720              LIT   215
      1118  ROOMCT        =03                                         3  3723              AREA  215
                          '039'                                       3  3726              LIT   215
      1122  NEWSW         =01                                         1  3727              AREA  216
      1126  COUNTR        =05                                         5  3732              AREA  216
      1126  SEQCT         =05                                         5  3737              AREA  216
      1139  DATASW        =01                                         1  3738              AREA  216
      1145  CNVADD        =05                                         5  3743              AREA  216
                          +3                                          1  3744              LIT   216
      1151                +WMSTR-3                                    3  3747  D08         ADCON 216
      1163  DCSW          =01                                         1  3748              AREA  217
                          ')'                                         1  3749              LIT   217
                          +6                                          1  3750              LIT   217
                          +96                                         2  3752              LIT   217
      1214                'LO     ,      ,      ,      1   '        32  3784              LIT   217
                          '000'                                       3  3787              LIT   218
      1219                '00100104004004004004004004O'              27  3814              LIT   218
      1226  HOLDCT        =02                                         2  3816              AREA  218
      1232  BIGSW         =01                                         1  3817              AREA  218
      1233  SAVEWM        =05                                         5  3822              AREA  218
                          'A'                                         1  3823              LIT   218
                          '+'                                         1  3824              LIT   219
                          +80                                         2  3826              LIT   219
1357 13 17  ENDE2   DCW   ' '                                         1  3827                    219
1358 13 18  BLANK1  EQU   BLANK4-3                                      3430
1359 13 19  HOLDH   EQU   HOLDDT-52                                     3492
1360 13 20          EX    LIBRN                                             B 000               220
1361 13 21          END   LIBRN                                             / 000 080           223
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CLEAR STORAGE 1      ,008015,019026,030,034041,045,053,0570571026                                                    1
CLEAR STORAGE 2      L068112,102106,113/101099/I99,027A070028)027B001027080261,001/00111310                          2
BOOTSTRAP            ,008015,022029,036040,047054,061068,072/061039                ,0010011040                       3

                              1401 AUTOCODER-PASS 8 LOAD TAPE-RIGHT MAIN-VERSION 3       3782L                PAGE    1

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

 101  1 01   000    JOB   1401 AUTOCODER-PASS 8 LOAD TAPE-RIGHT MAIN-VERSION 3
 102  1 02          CTL   630 1
 103  1 03   *
 104  1 04   * EQUATES USED BY PROGRAM
 105  1 05   *
 106  1 06   INITAP EQU   (U0                                                                  (U0
 107  1 07   INTAPE EQU   (U5                                                                  (U5
 108  1 08   OUTAPE EQU   (U6                                                                  (U6
 109  1 09   PUNCH  EQU   100                                                                  0100
 110  1 10   OUTPUT EQU   PUNCH+1                                                              0101
 111  1 11   IMAGE  EQU   0                                                                    0000
 112  1 12   XXXX   EQU   0                                                                    0000
 113  1 13   COUNT  EQU   IMAGE+7                                                              0007
 114  1 14   LABADD EQU   IMAGE+61                                                             0061
 115  1 15   SUPADD EQU   IMAGE+66                                                             0066
 116  1 16   ACP    EQU   IMAGE+70                                                             0070
 117  1 17   BOP    EQU   IMAGE+73                                                             0073
 118  1 18   DMOD   EQU   IMAGE+74                                                             0074
 119  1 19   TYPE   EQU   IMAGE+75                                                             0075
 120  1 20   PRINT  EQU   200                                                                  0200
 121  1 21   LIBRN  EQU   0                                                                    0000
 122  1 22          ORG   87                                                                         0087
 123  1 23   XR1    DCW   000                                                  3  0089                          4
 124  1 24          DC    00                                                   2  0091                          4
 125  1 25   XR2    DCW   000                                                  3  0094                          4
 126  1 26          DC    00                                                   2  0096                          4
 127  1 27   XR3    DCW   000                                                  3  0099                          4
 128  1 28          DC    00                                                   2  0101                          4
 129  1 29   *
 130  1 30   * INITIALIZATION ROUTINE
 131  1 31   *
 132  1 32          ORG   336                                                                        0336
 133  1 33   ZONE   DCW   '2SKB'                                               4  0339                          5
 134  1 34   INITLZ RWD   OUTAPE                                               5  0340  U (U6 R                 5
 135  1 35          C     OUTOPN,'2'                                           7  0345  C -00 P07               5
 136  1 36          BH    ENDJOB                                               5  0352  B -55 U                 5
 137  1 37          C     OUTOPN,'7'                                           7  0357  C -00 P08               5
 138  1 38          BL    ENDJOB                                               5  0364  B -55 T                 5
 139  1 39          RWD   4                                                    5  0369  U (U4 R                 5
 140  1 40          RWD   INTAPE                                               5  0374  U (U5 R                 6
 141  1 41          CW    LTAPSW,PNH4SW                                        7  0379  ) P25 P26               6
 142  1 42          MCW   SSOP,TSTSS                                           7  0386  M -01 475               6
 143  1 43   *
 144  1 44   * TEST FOR CTL CARD
 145  1 45   *
 146  1 46   READ4  MCW   '013',LGTCK+6                                        7  0393  M P11 058               6
 147  1 47          RT    4,1                                                  8  0400  M (U4 001 R             6
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
148   1 48           B     CHKLGT                                        4  0408  B 037             6
149   1 49           BER   TPERR                                         5  0412  B M33 L           7
150   1 50           C     18,'JOB'                                      7  0417  C 018 P14         7
151   1 51           BU    CKCTL                                         5  0424  B 444 /           7
152   1 52           MCW   79,IDENT=4                                   7  0429  M 079 P18         7
153   1 53           CW    JOBSW=1                                       4  0436  ) P19             7
154   1 54           B     READ4                                         4  0440  B 393             7
155   1 55   CKCTL   C     18,'CTL'                                      7  0444  C 018 P22         7
156   1 56           MCW   OUTOPN,23                                     7  0451  M -00 023         8
157   1 57           RWD   4                                           5  0458  U (U4 R           8
158   1 58           BE    TSTSS                                         5  0463  B 475 S           8
159   1 59           LCA   '33',22                                     7  0468  L P24 022         8
160   1 60   TSTSS   BSS   SENSW,F                                     5  0475  B 528 F           8
161   1 61   TSTOP   BCE   LTAPOP,23,2                                 8  0480  B 591 023 2       8
162   1 62           BCE   LTAPOP,23,3                                 8  0488  B 591 023 3       9
163   1 63           BCE   LTAPOP,23,6                                 8  0496  B 591 023 6       9
164   1 64           BCE   LTAPOP,23,7                                 8  0504  B 591 023 7       9
165   1 65           SW    LTAPSW=1                                      4  0512  , P25             9
166   1 66           B     START                                         4  0516  B ‡17             9
167   1 67   *
168   1 68   * OPTION TO PUNCH NEW SOURCE DECK
169   1 69   *
170   1 70   PNH4OP  SW    PNH4SW=1                                      4  0520  , P26             9
171   1 71           B     TSTLSW                                        4  0524  B ‡49             10
172   1 72   *
173   1 73   * TEST SENSE SWITCHES FOR OPTION
174   1 74   *
175   1 75   SENSW   LCA   '0',23                                       7  0528  L P27 023         10
176   1 76           BSS   ADD1,B                                       5  0535  B 558 B           10
177   1 77   TSTSSC  BSS   ADD2,C                                       5  0540  B 569 C           10
178   1 78   TSTSSG  BSS   ADD4,G                                       5  0545  B 580 G           10
179   1 79   SSOUT   CW    23                                            4  0550  ) 023             10
180   1 80           B     TSTOP                                         4  0554  B 480             10
181   1 81   ADD1    A     '1',23                                        7  0558  A P28 023         11
182   1 82           B     TSTSSC                                        4  0565  B 540             11
183   1 83   ADD2    A     '2',23                                        7  0569  A P07 023         11
184   1 84           B     TSTSSG                                        4  0576  B 545             11
185   1 85   ADD4    A     '4',23                                        7  0580  A P29 023         11
186   1 86           B     SSOUT                                         4  0587  B 550             11
187   1 87   *
188   1 88   * SET UP CLEAR STORAGE RECORD
189   1 89   *
190   1 90   LTAPOP  CS    PUNCH+80                                      4  0591  / 180             11
191   1 91           SW    GRPMRK                                        4  0595  , P06             12
192   1 92           LCA   GRPMRK,PUNCH+99                             7  0599  L P06 199         12
193   1 93           LCA   IDENT,PUNCH+79                              7  0606  L P18 179         12
194   1 94           LCA   '  '                                        4  0613  L P31             12
195   1 95           LCA   'B007'                                      4  0617  L P35             12
196   1 96           LCA   ')021'                                      4  0621  L P39             12
197   1 97           LCA   'B047L'                                     4  0625  L P44             12
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SEQ PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
198  1 98           LCA   'L(U1001R'                          4  0629  L P52               13
199  1 99           LCA   '.'                                 4  0633  L P53               13
200  2 00           LCA   BSPTU1                              4  0637  L 093               13
201  2 01   *
202  2 02   * TEST OBJECT CORE SIZE
203  2 03   *
204  2 04           C     22,'3'                              7  0641  C 022 P54           13
205  2 05           BE    IS4K                                5  0648  B 747 S             13
206  2 06           BH    IS4K                                5  0653  B 747 U             13
207  2 07           C     22,'6'                              7  0658  C 022 P55           13
208  2 08           BL    IS4K                                5  0665  B 747 T             14
209  2 09           LCA   'IO+',PUNCH+44                     7  0670  L P58 144           14
210  2 10           LCA   '099'                               4  0677  L P61               14
211  2 11           LCA   'B053'                              4  0681  L P65               14
212  2 12           LCA   'M074099'                           4  0685  L P72               14
213  2 13           LCA   ')099'                              4  0689  L P76               14
214  2 14           LCA   'B001/'                             4  0693  L P81               14
215  2 15           LCA   'C004041'                           4  0697  L P88               15
216  2 16           LCA   '=044004'                           4  0701  L P95               15
217  2 17           LCA   '/I9I'                              4  0705  L P99               15
218  2 18           BCE   BTSTRP,22,6                        8  0709  B 842 022 6         15
219  2 19           BCE   IS12K,22,5                        8  0717  B 736 022 5         15
220  2 20           MZ    ZONE-2,PUNCH+4                    7  0725  Y 337 104           15
221  2 21           B     BTSTRP                            4  0732  B 842               15
222  2 22   IS12K   MZ    ZONE-1,PUNCH+4                    7  0736  Y 338 104           16
223  2 23           B     BTSTRP                            4  0743  B 842               16
224  2 24   IS4K    LCA   'IO',PUNCH+75                     7  0747  L Q01 175           16
225  2 25           LCA   'B053',PUNCH+46                   7  0754  L P65 146           16
226  2 26           LCA   'M080099'                          4  0761  L Q08               16
227  2 27           LCA   ')099'                             4  0765  L P76               16
228  2 28           LCA   'B001'                            4  0769  L Q12               16
229  2 29           LCA   'B0320020'                        4  0773  L Q20               17
230  2 30           LCA   ')002'                            4  0777  L Q24               17
231  2 31           LCA   'A075003'                         4  0781  L Q31               17
232  2 32           LCA   ',002'                            4  0785  L Q35               17
233  2 33           LCA   '/I99'                            4  0789  L Q39               17
234  2 34           SW    PUNCH+80                          4  0793  , 180               17
235  2 35           BCE   BTSTRP,22,3                        8  0797  B 842 022 3         17
236  2 36           MCW   'Z',PUNCH+2                       7  0805  M Q40 102           18
237  2 37           BCE   BTSTRP,22,2                       8  0812  B 842 022 2         18
238  2 38           MCW   'T',PUNCH+2                       7  0820  M Q41 102           18
239  2 39           BCE   BTSTRP,22,1                       8  0827  B 842 022 1         18
240  2 40           MCW   'I',PUNCH+2                       7  0835  M Q42 102           18
241  2 41   *
242  2 42   * SET UP BOOTSTRAP RECORD
243  2 43   *
244  2 44   BTSTRP  B     WRITE1                            4  0842  B -30               19
245  2 45           CW    PUNCH+99                          4  0846  ) 199               19
246  2 46           LCA   GRPMRK,PUNCH+80                   7  0850  L P06 180           19
247  2 47           LCA   ' ',PUNCH+24                      7  0857  L Q43 124           19
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SEQ  PG LIN  LABEL   OP    OPERANDS                    SFX CT  LOCN  INSTRUCTION TYPE  CARD
248   2 48           LCA   '.020'                        4  0864  L Q47               19
249   2 49           LCA   BER1                          4  0868  L 080               19
250   2 50           LCA   RDREC                         4  0872  L 088               19
251   2 51           LCA   '.'                           4  0876  L P53               20
252   2 52           LCA   BSPTU1                        4  0880  L 093               20
253   2 53           B     WRITE1                        4  0884  B -30               20
254   2 54           CS    PUNCH+75                      4  0888  / 175               20
255   2 55           LCA   ' ',PUNCH+35                  7  0892  L Q43 135           20
256   2 56           LCA   'B007'                        4  0899  L P35               20
257   2 57           LCA   'N000'                        4  0903  L Q51               20
258   2 58           LCA   'L      '                     4  0907  L Q58               21
259   2 59           LCA   BER1                          4  0911  L 080               21
260   2 60           LCA   RDREC                         4  0915  L 088               21
261   2 61           LCA   '.'                           4  0919  L P53               21
262   2 62           LCA   BSPTU1                        4  0923  L 093               21
263   2 63    *
264   2 64    * TEST PROCESSOR CORE SIZE
265   2 65    *
266   2 66           C     21,'3'                        7  0927  C 021 P54           21
267   2 67           BE    START                         5  0934  B ÷17 S             21
268   2 68           BH    START                         5  0939  B ÷17 U             22
269   2 69           C     21,'6'                        7  0944  C 021 P55           22
270   2 70           BL    START                         5  0951  B ÷17 T             22
271   2 71           MN    21,SAVEZN=1                   7  0956  D 021 Q59           22
272   2 72           A     +3,SAVEZN                     7  0963  A Q60 Q59           22
273   2 73           MN    SAVEZN,*+4                    7  0970  D Q59 980           22
274   2 74           MZ    ZONE,*+7                      7  0977  Y 339 990           23
275   2 75           LCA   GRPMRK,GRPMRK                 7  0984  L P06 P06           23
276   2 76           CW    GRPMRK                        4  0991  ) P06               23
277   2 77           MCW   '400',KBLKNG                  7  0995  M Q63 P01           23
278   2 78           BCE   START,21,4                    8  1002  B ÷17 021 4         23
279   2 79           A     '400',KBLKNG                  7  1010  A Q63 P01           24
280   2 80    *
281   2 81    * SET PARAMETERS
282   2 82    *
283   2 83    START  BCE   PNH4OP,23,4                   8  1017  B 520 023 4         24
284   2 84           BCE   PNH4OP,23,5                   8  1025  B 520 023 5         24
285   2 85           BCE   PNH4OP,23,6                   8  1033  B 520 023 6         24
286   2 86           BCE   PNH4OP,23,7                   8  1041  B 520 023 7         24
287   2 87    TSTLSW BW    EOJOB,LTAPSW                  8  1049  V X81 P25 1         25
288   2 88           MCW   KBLKNG,BLKCT                  7  1057  M P01 P04           25
289   2 89           CS    80                            4  1064  / 080               25
290   2 90           BW    SETINP,JOBSW                  8  1068  V ÷84 P19 1         25
291   2 91           RT    INTAPE,INPUT                  8  1076  M (U5 +28 R         25
292   2 92    SETINP SW    IMAGE+23,IMAGE+57             7  1084  , 023 057           26
293   2 93           SW    IMAGE+62,IMAGE+67             7  1091  , 062 067           26
294   2 94           SW    IMAGE+68,IMAGE+71             7  1098  , 068 071           26
295   2 95           SW    IMAGE+74,IMAGE+6              7  1105  , 074 006           26
296   2 96           SW    IMAGE+1                       4  1112  , 001               26
297   2 97           B     GET                           4  1116  B -76               26
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SEQ PG LIN  LABEL  OP    OPERANDS                                SFX CT  LOCN  INSTRUCTION TYPE  CARD
298  2 98   *
299  2 99   * ANALYZE RECORD TYPE
300  3 00   *
301  3 01   ANALYZ BCE   BYPASS,TYPE,(                             8  1120  B J59 075 (          27
302  3 02          BM    BYPASS,IMAGE+5                           8  1128  V J59 005 K          27
303  3 03          BCE   INSTR,TYPE,                              8  1136  B S22 075            27
304  3 04          BCE   DOJOB,TYPE,I                            8  1144  B S11 075 I          27
305  3 05          MN    TYPE,XR2                                 7  1152  D 075 094            27
306  3 06          A     XR2                                      4  1159  A 094                28
307  3 07          A     XR2                                      4  1163  A 094                28
308  3 08          B     *+1+X2                                   4  1167  B /P1                28
309  3 09          B     DA                                       4  1171  B V85                28
310  3 10          B     CONST                                    4  1175  B S65                28
311  3 11          B     DSA                                      4  1179  B V59                28
312  3 12          B     EXEND                                    4  1183  B W82                28
313  3 13          B     BYPASS                                   4  1187  B J59                29
314  3 14          B     BYPASS                                   4  1191  B J59                29
315  3 15          B     BYPASS                                   4  1195  B J59                29
316  3 16          B     BYPASS                                   4  1199  B J59                29
317  3 17          B     XTRA                                     4  1203  B V34                29
318  3 18          B     BYPASS                                   4  1207  B J59                29
319  3 19   DOJOB  MCW   IMAGE+20,PUNCH+79                        7  1211  M 020 179            29
320  3 20          B     BYPASS                                   4  1218  B J59                30
321  3 21   *
322  3 22   * PROCESS INSTRUCTION
323  3 23   *
324  3 24   INSTR  MCW   DMOD,PUNCH+42                            7  1222  M 074 142            30
325  3 25          MCW                                           1  1229  M                    30
326  3 26          MCW                                           1  1230  M                    30
327  3 27          MCW                                           1  1231  M                    30
328  3 28          MCW   LABADD,CNVADD                           7  1232  M 061 +01            30
329  3 29          A     COUNT,CNVADD                             7  1239  A 007 +01            30
330  3 30          S     '1',CNVADD                               7  1246  S P28 +01            31
331  3 31   INSTXT B     SETLOC                                   4  1253  B J67                31
332  3 32          B     WRITE2                                   4  1257  B K64                31
333  3 33          B     BYPASS                                   4  1261  B J59                31
334  3 34   *
335  3 35   * PROCESS CONSTANTS
336  3 36   *
337  3 37   CONST  A     '00',COUNT                               7  1265  A Q65 007            31
338  3 38          C     COUNT,'00'                               7  1272  C 007 Q65            31
339  3 39          BL    *+5                                      5  1279  B S88 T              31
340  3 40          B     BYPASS                                   4  1284  B J59                32
341  3 41          BCE   PCHCON,IMAGE+23,=                        8  1288  B T44 023 =          32
342  3 42          BWZ   PCHCON,IMAGE+4,B                         8  1296  V T44 004 B          32
343  3 43          MCW   IMAGE+53,HOLDDT-22                       7  1304  M 053 R26            32
344  3 44          BCE   ALPHA,IMAGE+23,'                        8  1311  B T23 023 '          32
345  3 45          B     PCHCON                                   4  1319  B T44                32
346  3 46   ALPHA  MCW   +HOLDDT-51,XR1                          7  1323  M Q68 089            33
347  3 47          A     COUNT,XR1                                7  1330  A 007 089            33
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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
348   3 48           MCW   BLANK1=1,XXXX+X1                             7  1337  M Q69 0‡0           33
349   3 49   PCHCON  MCW   HOLDDT-20,PUNCH+66                          7  1344  M R28 166           33
350   3 50           MCW   LABADD,CNVADD                               7  1351  M 061 +01           33
351   3 51           C     COUNT,'32'                                  7  1358  C 007 Q71           34
352   3 52           BL    LARGE                                       5  1365  B T82 T             34
353   3 53           BCE   PRODC,TYPE,A                               8  1370  B U47 075 A         34
354   3 54           B     INSTXT                                      4  1378  B S53               34
355   3 55   *
356   3 56   * CONSTANT GREATER THAN 32 CHARACTERS
357   3 57   *
358   3 58   LARGE   S     '32',COUNT                                  7  1382  S Q71 007           34
359   3 59           S     COUNT,CNVADD                                7  1389  S 007 +01           34
360   3 60           MCW   COUNT,HOLDCT=2                              7  1396  M 007 Q73           35
361   3 61           MCW   '32',COUNT                                  7  1403  M Q71 007           35
362   3 62           B     SETLOC                                      4  1410  B J67               35
363   3 63           BCE   LRGDC,TYPE,A                               8  1414  B U94 075 A         35
364   3 64   LRGXT   MCW   HOLDCT,COUNT                               7  1422  M Q73 007           35
365   3 65           MCW   HOLDDT,TEMP=20                              7  1429  M R48 Q93           36
366   3 66           B     WRITE2                                      4  1436  B K64               36
367   3 67           MCW   TEMP,PUNCH+54                               7  1440  M Q93 154           36
368   3 68   *
369   3 69   * PROCESS DC
370   3 70   *
371   3 71   PRODC   MCW   LABADD,CNVADD                               7  1447  M 061 +01           36
372   3 72           S     COUNT,CNVADD                                7  1454  S 007 +01           36
373   3 73           A     '1',CNVADD                                  7  1461  A P28 +01           36
374   3 74           B     CNVRT                                       4  1468  B K11               37
375   3 75           MCW   CNVWK,PUNCH+30                             7  1472  M +04 130           37
376   3 76           MCW   ')'                                         4  1479  M Q94               37
377   3 77           MCW   LABADD,CNVADD                               7  1483  M 061 +01           37
378   3 78           B     INSTXT                                      4  1490  B S53               37
379   3 79   *
380   3 80   * DC GREATER THAN 32 CHARACTERS
381   3 81   *
382   3 82   LRGDC   MCW   LABADD,CNVADD                               7  1494  M 061 +01           37
383   3 83           S     HOLDCT,CNVADD                               7  1501  S Q73 +01           38
384   3 84           S     '31',CNVADD                                 7  1508  S Q96 +01           38
385   3 85           B     CNVRT                                       4  1515  B K11               38
386   3 86           MCW   CNVWK,PUNCH+30                             7  1519  M +04 130           38
387   3 87           MCW   ')'                                         4  1526  M Q94               38
388   3 88           B     LRGXT                                       4  1530  B U22               38
389   3 89   *
390   3 90   * EXTRA CARD FOR CONSTANT OVER 32 CHARACTERS
391   3 91   *
392   3 92   XTRA    BCE   BYPASS,IMAGE+21,                            8  1534  B J59 021           39
393   3 93           MCW   IMAGE+73,HOLDDT=52                          7  1542  M 073 R48           39
394   3 94           CHAIN 6                                                                 MACRO
395                  MCW                                             1  1549  M                   GEN  39
396                  MCW                                             1  1550  M                   GEN  39
397                  MCW                                             1  1551  M                   GEN  39
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SEQ  PG LIN  LABEL  OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
398                MCW                                          1  1552  M           GEN     39
399                MCW                                          1  1553  M           GEN     39
400                MCW                                          1  1554  M           GEN     40
401   3 95         B     BYPASS                                 4  1555  B J59       GEN     40
402   3 96  *
403   3 97  * PROCESS DSA
404   3 98  *
405   3 99  DSA    MCW   BOP,PUNCH+37                          7  1559  M 073 137   GEN     40
406   4 00         BCE   PRODC,TYPE,B                          8  1566  B U47 075 B GEN     40
407   4 01         MCW   LABADD,CNVADD                        7  1574  M 061 +01   GEN     40
408   4 02         B     INSTXT                                 4  1581  B S53       GEN     40
409   4 03  *
410   4 04  * PROCESS DEFINE AREA
411   4 05  *
412   4 06  DA     BCE   BYPASS,TYPE,-                        8  1585  B J59 075 - GEN     40
413   4 07         BCE   HEADER,TYPE,0                        8  1593  B W24 075 0 GEN     41
414   4 08  *
415   4 09  * FIELD, FIELD REPEAT
416   4 10  *
417   4 11  FIELD  MCW   SUPADD,CNVADD                        7  1601  M 066 +01   GEN     41
418   4 12         B     DARTN                                  4  1608  B W47       GEN     41
419   4 13         BCE   FIELD,TYPE,‡                         8  1612  B W01 075 ‡ GEN     41
420   4 14         B     ANALYZ                                 4  1620  B /20       GEN     41
421   4 15  *
422   4 16  * HEADER, HEADER REPEAT
423   4 17  *
424   4 18  HEADER MCW   LABADD,CNVADD                        7  1624  M 061 +01   GEN     41
425   4 19         B     DARTN                                  4  1631  B W47       GEN     42
426   4 20         BCE   HEADER,TYPE,‡                        8  1635  B W24 075 ‡ GEN     42
427   4 21         B     ANALYZ                                 4  1643  B /20       GEN     42
428   4 22  *
429   4 23  * DA SUBROUTINE
430   4 24  *
431   4 25  DARTN  SBR   DAXT+3                                 4  1647  H W81       GEN     42
432   4 26         B     CNVRT                                  4  1651  B K11       GEN     42
433   4 27         MCW   CNVWK,PUNCH+26                       7  1655  M +04 126   GEN     42
434   4 28         MCW   CNVWK                                  4  1662  M +04       GEN     42
435   4 29         MCW   ','                                    4  1666  M R49       GEN     43
436   4 30         B     WRITE2                                 4  1670  B K64       GEN     43
437   4 31         B     GET                                    4  1674  B -76       GEN     43
438   4 32  DAXT   B     XXXX                                   4  1678  B 000       GEN     43
439   4 33  *
440   4 34  * PROCESS EX, END
441   4 35  *
442   4 36  EXEND  BCE   END,TYPE,3                           8  1682  B X58 075 3 GEN     43
443   4 37         MCW   AOP,PUNCH+30                         7  1690  M 070 130   GEN     43
444   4 38         MCW   'B'                                    4  1697  M R50       GEN     43
445   4 39         MCW   'NOOOOOO'                            4  1701  M R57       GEN     44
446   4 40         B     WRITE2                                 4  1705  B K64       GEN     44
447   4 41         LCA   ' ',PUNCH+24                         7  1709  L Q43 124   GEN     44
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
448   4 42           LCA   'B007'                              4  1716  L P35               44
449   4 43           B     GET                                 4  1720  B -76               44
450   4 44           BCE   ISJOB,TYPE,I                       8  1724  B X47 075 I         44
451   4 45  COMPAT   B     WRITE1                              4  1732  B -30               44
452   4 46           LCA   'L      ',PUNCH+26                 7  1736  L R64 126           45
453   4 47           B     ANALYZ                              4  1743  B /20               45
454   4 48  ISJOB    MCW   IMAGE+20,PUNCH+79                  7  1747  M 020 179           45
455   4 49           B     COMPAT                              4  1754  B X32               45
456   4 50  *
457   4 51  * END
458   4 52  *
459   4 53  END      MCW   '/   080',PUNCH+26                 7  1758  M R71 126           45
460   4 54           MCW   AOP,PUNCH+23                      7  1765  M 070 123           45
461   4 55           B     WRITE2                              4  1772  B K64               46
462   4 56           WTM   OUTAPE                              5  1776  U (U6 M             46
463   4 57  EOJOB    BW    PUNCH4,PNH4SW                       8  1781  V X93 P26 1         46
464   4 58           B     ENDJOB                              4  1789  B -55               46
465   4 59  *
466   4 60  * PUNCH NEW SOURCE DECK
467   4 61  *
468   4 62  PUNCH4   CS    PUNCH+80                            4  1793  / 180               46
469   4 63           MCW   '113',LGTCK+6                     7  1797  M R74 058           46
470   4 64           RT    4,PUNCH+1                           8  1804  M (U4 101 R         47
471   4 65           B     CHKLGT                              4  1812  B 037               47
472   4 66           BER   TPERR                               5  1816  B M33 L             47
473   4 67           BCE   DOLTO,PUNCH+75,L                    8  1821  B Z54 175 L         47
474   4 68           BCE   PUNCH4,PUNCH+75,S                   8  1829  B X93 175 S         47
475   4 69           BCE   PUNCH4,PUNCH+75,C                   8  1837  B X93 175 C         48
476   4 70           BCE   PUNCH4,PUNCH+75,Z                   8  1845  B X93 175 Z         48
477   4 71           BCE   PUNCH4,PUNCH+75,Y                   8  1853  B X93 175 Y         48
478   4 72  BUMP     A     +1,SEQCT-1                          7  1861  A R75 097           48
479   4 73           MCW   SEQCT,PUNCH+5                      7  1868  M 098 105           48
480   4 74           BCE   DOPCH,PUNCH+6,*                    8  1875  B Z13 106 *         49
481   4 75           MCW   BLANK4=4,PUNCH+15                 7  1883  M R79 115           49
482   4 76           C     PUNCH+18,'JOB'                      7  1890  C 118 P14           49
483   4 77           BU    DOPCH                               5  1897  B Z13 /             49
484   4 78           MCW   BLANK4,PUNCH+11                   7  1902  M R79 111           49
485   4 79           MCW   BLANK4-2                           4  1909  M R77               49
486   4 80  DOPCH    MCW   BLANK4-1,PUNCH+75                  7  1913  M R78 175           50
487   4 81           P                                         1  1920  4                   50
488   4 82           SS    4                                   2  1921  K 4                 50
489   4 83           C     PUNCH+18,'END'                      7  1923  C 118 R82           50
490   4 84           BU    PUNCH4                              5  1930  B X93 /             50
491   4 85           BCE   PUNCH4,PUNCH+6,*                    8  1935  B X93 106 *         50
492   4 86           CS    PUNCH+80                            4  1943  / 180               50
493   4 87           P                                         1  1947  4                   51
494   4 88           SS    8                                   2  1948  K 8                 51
495   4 89           B     ENDJOB                              4  1950  B -55               51
496   4 90  DOLTO    MCW   'LTORG',PUNCH+20                   7  1954  M R87 120           51
497   4 91           B     BUMP                                4  1961  B Y61               51
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
498	4	92		DCW	' '		1	1965		51
499	4	93	ENDF1	DCW	' '		1	1966		51
500	4	94		XFR	LIBRN				B 000	52

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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
501   4 95           JOB   1401 AUTOCODER-PASS 8-LOAD TAPE-LEFT MAIN -VERSION 3
502   4 96           ORG   2000                                                  2000
503   4 97   OUTOPN  DCW   ' '                                        1   2000                       55
504   4 98   SSOP    DCW   'B'                                        1   2001                       55
505   4 99           RTW   1,1                                      8   2002  L (U1 001 R          55
506   5 00           NOP   XXXX                                     4   2010  N 000                55
507   5 01           BER   TPERR                                    5   2014  B M33 L              55
508   5 02           CW    ENDF1,ENDF2                              7   2019  ) Z66 I98            55
509   5 03           B     INITLZ                                   4   2026  B 340                55
510   5 04   *
511   5 05   * WRITE CLEAR STORAGE AND BOOTSTRAP
512   5 06   *
513   5 07   WRITE1  SBR   WT1XT+3                                  4   2030  H -54                56
514   5 08           WTW   OUTAPE,OUTPUT                            8   2034  L (U6 101 W          56
515   5 09           NOP   XXXX                                     4   2042  N 000                56
516   5 10           BER   TPERR                                    5   2046  B M33 L              56
517   5 11   WT1XT   B     XXXX                                     4   2051  B 000                56
518   5 12   *
519   5 13   * GO BACK TO PASS E FOR EXTRA OUTPUT
520   5 14   *
521   5 15   ENDJOB  RTW   1,333                                    8   2055  L (U1 333 R          56
522   5 16           NOP   XXXX                                     4   2063  N 000                56
523   5 17           BER   TPERR                                    5   2067  B M33 L              57
524   5 18           B     MESSAG                                   4   2072  B 333                57
525   5 19   *
526   5 20   * RETRIEVE INPUT RECORD
527   5 21   *
528   5 22   GET     SBR   GETXT+3                                  4   2076  H J58                57
529   5 23           C     BLKCT,KBLKNG                             7   2080  C P04 P01            57
530   5 24           BU    NXTREC                                   5   2087  B J20 /              57
531   5 25           S     HOLDA                                    4   2092  S P05                57
532   5 26           MCW   +INPUT+13,LGTCK+6                       7   2096  M R90 058            57
533   5 27           RT    INTAPE,INPUT                             8   2103  M (U5 +28 R          58
534   5 28           B     CHKLGT                                   4   2111  B 037                58
535   5 29           BER   TPERR                                    5   2115  B M33 L              58
536   5 30   NXTREC  A     +80,BLKCT                                7   2120  A R92 P04            58
537   5 31           MCW   BLKCT,XR3                                7   2127  M P04 099            58
538   5 32           MCW   INPUT-1+X3,IMAGE+80                     7   2134  M +87 080            58
539   5 33           CHAIN 8                                                                MACRO
540                  MCW                                            1   2141  M              GEN   58
541                  MCW                                            1   2142  M              GEN   59
542                  MCW                                            1   2143  M              GEN   59
543                  MCW                                            1   2144  M              GEN   59
544                  MCW                                            1   2145  M              GEN   59
545                  MCW                                            1   2146  M              GEN   59
546                  MCW                                            1   2147  M              GEN   59
547                  MCW                                            1   2148  M              GEN   59
548   5 34           S     XR3+1                                    4   2149  S 100                60
549   5 35           S                                              1   2153  S                    60
550   5 36           S                                              1   2154  S                    60
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
551   5 37   GETXT   B     XXXX                                 4  2155  B 000               60
552   5 38   *
553   5 39   * DO NEXT RECORD
554   5 40   *
555   5 41   BYPASS B     GET                                  4  2159  B -76               60
556   5 42          B     ANALYZ                               4  2163  B /20               60
557   5 43   *
558   5 44   * SET ADDRESSES IN OUTPUT
559   5 45   *
560   5 46   SETLOC SBR   LOCXT+3                              4  2167  H K10               60
561   5 47          B     CNVRT                                4  2171  B K11               61
562   5 48          MCW   CNVWK,PUNCH+26                       7  2175  M +04 126           61
563   5 49          ZA    +34,CNVADD                           7  2182  + R94 +01           61
564   5 50          A     COUNT,CNVADD                         7  2189  A 007 +01           61
565   5 51          B     CNVRT                                4  2196  B K11               61
566   5 52          MCW   CNVWK,PUNCH+23                       7  2200  M +04 123           61
567   5 53   LOCXT  B     XXXX                                 4  2207  B 000               62
568   5 54   *
569   5 55   * CONVERT 5 TO 3 DIGIT ADDRESS
570   5 56   *
571   5 57   CNVRT  SBR   CNVXT+3                              4  2211  H K63               62
572   5 58          BAV   *+1                                  5  2215  B K20 Z             62
573   5 59   ADDAGN A     +96,CNVADD-3                         7  2220  A R96 R98           62
574   5 60          BAV   ADDAGN                               5  2227  B K20 Z             62
575   5 61          MZ    CNVADD-4,CNVADD=5                    7  2232  Y R97 +01           62
576   5 62          MN    CNVADD-3,*+4                         7  2239  D R98 K49           62
577   5 63          MZ    ZONE,CNVADD-2                        7  2246  Y 339 R99           63
578   5 64          MCW   CNVADD,CNVWK=3                       7  2253  M +01 +04           63
579   5 65   CNVXT  B     XXXX                                 4  2260  B 000               63
580   5 66   *
581   5 67   * WRITE OUTPUT RECORDS
582   5 68   *
583   5 69   WRITE2 SBR   WT2XT+3                              4  2264  H L30               63
584   5 70          BCE   DOGM,PUNCH+35,                       8  2268  B L31 135           63
585   5 71          WTW   OUTAPE,OUTPUT+19                     8  2276  L (U6 120 W         63
586   5 72          NOP   XXXX                                 4  2284  N 000               64
587   5 73          BER   TPERR                                5  2288  B M33 L             64
588   5 74          NOP                                        1  2293  N                   64
589   5 75   CLEAR  MCW   BLANK1,PUNCH+75                      7  2294  M Q69 175           64
590   5 76          MCW   PUNCH+75                             4  2301  M 175               64
591   5 77          MCW   BLANK1,HOLDDT                        7  2305  M Q69 R48           64
592   5 78          MCW   HOLDDT                               4  2312  M R48               64
593   5 79          MCW   'NOOO',PUNCH+30                      7  2316  M Q51 130           65
594   5 80          MCW   'L      '                            4  2323  M +11               65
595   5 81   WT2XT  B     XXXX                                 4  2327  B 000               65
596   5 82   DOGM   CS    299                                  4  2331  / 299               65
597   5 83          LCA   PUNCH+80,28C                         7  2335  L 180 280           65
598   5 84          LCA                                        1  2342  L                   65
599   5 85          MCW   PUNCH+66,274                         7  2343  M 166 274           65
600   5 86          LCA   ' '                                  4  2350  L Q43               66
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SEQ  PG LIN  LABEL   OP    OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
601   5 87           LCA   'B007'                              4  2354  L P35               66
602   5 88           LCA   ')043043'                          4  2358  L +18               66
603   5 89           LCA   PUNCH+26                           4  2362  L 126               66
604   5 90           LCA   ',043'                            4  2366  L +22               66
605   5 91           SW    225,235                           7  2370  , 225 235           66
606   5 92           A     +8,227                            7  2377  A +23 227           66
607   5 93           CW    225                               4  2384  ) 225               67
608   5 94           BCE   WTGM,PUNCH+27,N                   8  2388  B M03 127 N         67
609   5 95           MCW   PUNCH+30,237                      7  2396  M 130 237           67
610   5 96   WTGM    CW    235                               4  2403  ) 235               67
611   5 97           WTW   OUTAPE,220                        8  2407  L (U6 220 W         67
612   5 98           NOP   XXXX                              4  2415  N 000               67
613   5 99           BER   TPERR                             5  2419  B M33 L             68
614   6 00           NOP                                     1  2424  N                   68
615   6 01           CW    280                               4  2425  ) 280               68
616   6 02           B     CLEAR                             4  2429  B K94               68
617   6 03   *
618   6 04   * TAPE REDUNDANCY ROUTINE
619   6 05   *
620   6 06   TPERR   SBR   XR2                               4  2433  H 094               68
621   6 07           SBR   REDXT+3                           4  2437  H N05               68
622   6 08           MZ    +9,XR2                            7  2441  Y +24 094           68
623   6 09           MCW   4000-10+X2,TPINST+7               7  2448  M IR0 M96           69
624   6 10           MN    TPINST+3,BSP1+3                   7  2455  D M92 M72           69
625   6 11           MCW   TPINST+7,INST2+7                  7  2462  M M96 005           69
626   6 12   BSP1    BSP   INITAP                            5  2469  U (U0 B             69
627   6 13           BCE   WRTRED,TPINST+7,W                 8  2474  B N78 M96 W         69
628   6 14           MCW   +9,READCT=1                       7  2482  M +24 +25           70
629   6 15   TPINST  RT    INITAP,XXXX                       8  2489  M (U0 000 R         70
630   6 16           BER   RDRERR                            5  2497  B N06 L             70
631   6 17   REDXT   B     XXXX                              4  2502  B 000               70
632   6 18   RDRERR  MN    TPINST+3,BSP2+3                   7  2506  D M92 N16           70
633   6 19   BSP2    BSP   INITAP                            5  2513  U (U0 B             70
634   6 20           S     +1,READCT                         7  2518  S R75 +25           71
635   6 21           BWZ   TPINST,READCT,B                   8  2525  V M89 +25 B         71
636   6 22           MN    TPINST+3,TPHALT+6                 7  2533  D M92 N46           71
637   6 23   TPHALT  H     XXXX,890                          7  2540  . 000 890           71
638   6 24           MCW   TPINST+7,*+8                      7  2547  M M96 N61           71
639   6 25           RT    INITAP,XXXX                       8  2554  M (U0 000 R         72
640   6 26           BSS   BSP1,E                            5  2562  B M69 E             72
641   6 27           H     XXXX,811                          7  2567  . 000 811           72
642   6 28           B     REDXT                             4  2574  B N02               72
643   6 29   WRTRED  SKP   1                                 5  2578  U (U1 E             72
644   6 30           BCE   SUBCTR,WRTCTR-1,5                 8  2583  B 015 +26 5         72
645   6 31           A     +1,WRTCTR=2                       7  2591  A R75 +27           73
646   6 32   INST2   WT    INITAP,XXXX                       8  2598  M (U0 000 W         73
647   6 33           BER   BSP1                              5  2606  B M69 L             73
648   6 34           B     REDXT                             4  2611  B N02               73
649   6 35   SUBCTR  S     WRTCTR                            4  2615  S +27               73
650   6 36           MN    TPINST+3,*+7                      7  2619  D M92 032           73
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SEQ  PG LIN  LABEL   OP     OPERANDS                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
651   6 37           H      XXXX,860                            7  2626  . 000 860          74
652   6 38           B      INST2                               4  2633  B N98              74
653   6 39    *
654   6 40    * CHECK FOR SHORT RECORD
655   6 41    *
656   6 42    CHKLGT SBR    XR2                                 4  2637  H 094              74
657   6 43           SBR    LGTXT+3                             4  2641  H 075              74
658   6 44           MZ     +9,XR2                              7  2645  Y +24 094          74
659   6 45    LGTCK  BCE    4000-12+X2,XXXX,                    8  2652  B IQ8 000          74
660   6 46           CHAIN  12                                                MACRO
661                  BCE                                        1  2660  B          GEN     74
662                  BCE                                        1  2661  B          GEN     75
663                  BCE                                        1  2662  B          GEN     75
664                  BCE                                        1  2663  B          GEN     75
665                  BCE                                        1  2664  B          GEN     75
666                  BCE                                        1  2665  B          GEN     75
667                  BCE                                        1  2666  B          GEN     75
668                  BCE                                        1  2667  B          GEN     75
669                  BCE                                        1  2668  B          GEN     76
670                  BCE                                        1  2669  B          GEN     76
671                  BCE                                        1  2670  B          GEN     76
672                  BCE                                        1  2671  B          GEN     76
673   6 47    LGTXT  B      XXXX                                4  2672  B 000              76
674   6 48    BER1   DCW    'B001L'                             5  2680                     76
675   6 49    RDREC  DCW    'L(U1020R'                          8  2688                     76
676   6 50    BSPTU1 DCW    'U(U1B'                             5  2693                     77
677   6 51    SEQCT  DCW    '0100 '                             5  2698                     77
678   6 52    KBLKNG DCW    080                                 3  2701                     77
679   6 53    HOLDA  DCW    +0000                               4  2705                     77
680   6 54    BLKCT  EQU    HOLDA-1                                2704
681   6 55    GRPMRK DC     ' '                                 1  2706                     77
682   6 56           LTORG  *                                                2707
                     DCW    '2'                                 1  2707          LIT     77
                            '7'                                 1  2708          LIT     77
                            '013'                               3  2711          LIT     77
                            'JOB'                               3  2714          LIT     78
        152  IDENT          =04                                 4  2718          AREA    78
        153  JOBSW          =01                                 1  2719          AREA    78
                            'CTL'                               3  2722          LIT     78
                            '33'                                2  2724          LIT     78
        165  LTAPSW         =01                                 1  2725          AREA    78
        170  PNH4SW         =01                                 1  2726          AREA    78
                            '0'                                 1  2727          LIT     79
                            '1'                                 1  2728          LIT     79
                            '4'                                 1  2729          LIT     79
                            ' '                                 2  2731          LIT     79
                            'B007'                              4  2735          LIT     79
                            ')021'                              4  2739          LIT     79
        197                 'B047L'                             5  2744          LIT     79
        198                 'L(U1001R'                          8  2752          LIT     80
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
					'.'		1	2753		LIT	80
					'3'		1	2754		LIT	80
					'6'		1	2755		LIT	80
					'I0+'		3	2758		LIT	80
					'099'		3	2761		LIT	80
					'B053'		4	2765		LIT	80
		212			'M074099'		7	2772		LIT	81
					')099'		4	2776		LIT	81
		214			'B001/'		5	2781		LIT	81
		215			'C004041'		7	2788		LIT	81
		216			'=044004'		7	2795		LIT	81
					'/I9I'		4	2799		LIT	81
					'I0'		2	2801		LIT	81
		226			'M080099'		7	2808		LIT	82
					'B001'		4	2812		LIT	82
		229			'B0320020'		8	2820		LIT	82
					')002'		4	2824		LIT	82
		231			'A075003'		7	2831		LIT	82
					',002'		4	2835		LIT	82
					'/I99'		4	2839		LIT	82
					'Z'		1	2840		LIT	83
					'T'		1	2841		LIT	83
					'I'		1	2842		LIT	83
					' '		1	2843		LIT	83
					'.020'		4	2847		LIT	83
					'N000'		4	2851		LIT	83
		258			'L '		7	2858		LIT	83
		271	SAVEZN		=01		1	2859		AREA	84
					+3		1	2860		LIT	84
					'400'		3	2863		LIT	84
					'00'		2	2865		LIT	84
		346			+HOLDDT-51		3	2868	Q97	ADCON	84
		348	BLANK1		=01		1	2869		AREA	84
					'32'		2	2871		LIT	84
		360	HOLDCT		=02		2	2873		AREA	85
		365	TEMP		=20		20	2893		AREA	85
					')'		1	2894		LIT	85
					'31'		2	2896		LIT	85
		393	HOLDDT		=52		52	2948		AREA	87
					','		1	2949		LIT	87
					'B'		1	2950		LIT	87
		445			'N000000'		7	2957		LIT	87
		452			'L '		7	2964		LIT	87
		459			'/ 080'		7	2971		LIT	88
					'113'		3	2974		LIT	88
					+1		1	2975		LIT	88
		481	BLANK4		=04		4	2979		AREA	88
					'END'		3	2982		LIT	88
		496			'LTORG'		5	2987		LIT	88
		532			+INPUT+13		3	2990	+41	ADCON	88

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SEQ  PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD
                           +80                                          2  2992              LIT     89
                           +34                                          2  2994              LIT     89
                           +96                                          2  2996              LIT     89
          575  CNVADD       =05                                        5  3001              AREA    89
          578  CNVWK        =03                                        3  3004              AREA    89
          594               'L      '                                  7  3011              LIT     89
          602               ')043043'                                  7  3018              LIT     89
                            ',043'                                     4  3022              LIT     90
                            +8                                         1  3023              LIT     90
                            +9                                         1  3024              LIT     90
          628  READCT       =01                                        1  3025              AREA    90
          645  WRTCTR       =02                                        2  3027              AREA    90
683   6 57   *
684   6 58   * INPUT AREA
685   6 59   *
686   6 60   INPUT   EQU   *+1                                             3028
687   6 61   ENDF2   EQU   3998                                           3998
688   6 62   3998    DCW   ' '                                          1  3998                      91
689   6 63           XFR   LIBRN                                              B 000                  92
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
690  6 64           JOB   1401 AUTOCODER-PASS 8 EXTRA OUTPUT OVERLAY-VERSION 3
691  6 65           ORG   333                                                       0333
692  6 66   *
693  6 67   * PRINT END OF JOB MESSAGES
694  6 68   *
695  6 69   MESSAG CC    1                                                  2  0333  F 1                  95
696  6 70          CS    332                                                4  0335  / 332                95
697  6 71          CS                                                       1  0339  /                    95
698  6 72          MCW   'END OF ASSEMBLY',PRINT+15                         7  0340  M 696 215            95
699  6 73          W                                                        1  0347  2                    95
700  6 74          CC    K                                                  2  0348  F K                  95
701  6 75          MCW   'IF EXTRA OUTPUT DESIRED, SET SENSE',PRINT+34      7  0350  M 730 234            95
702  6 76          MCW   'SWITCH F ON, AND',PRINT+51                        7  0357  M 746 251            96
703  6 77          W                                                        1  0364  2                    96
704  6 78          CC    J                                                  2  0365  F J                  96
705  6 79          CS    PRINT+71                                           4  0367  / 271                96
706  6 80          MCW   'B ON FOR CONDENSED CARDS',PRINT+24                7  0371  M 770 224            96
707  6 81          W                                                        1  0378  2                    96
708  6 82          MCW   'C ON FOR LOADABLE TAPE 6',PRINT+24                7  0379  M 794 224            96
709  6 83          W                                                        1  0386  2                    97
710  6 84          MCW   'D ON FOR LISTING TAPE  3',PRINT+24                7  0387  M 818 224            97
711  6 85          W                                                        1  0394  2                    97
712  6 86          MCW   'E ON TO SUPPRESS LISTING',PRINT+24                7  0395  M 842 224            97
713  6 87          W                                                        1  0402  2                    97
714  6 88          MCW   'G ON FOR NEW SOURCE DECK',PRINT+24                 7  0403  M 866 224            97
715  6 89          W                                                        1  0410  2                    97
716  6 90          CC    J                                                  2  0411  F J                  98
717  6 91          CS    PRINT+24                                           4  0413  / 224                98
718  6 92          MCW   'AND PRESS START',PRINT+15                         7  0417  M 881 215            98
719  6 93          W                                                        1  0424  2                    98
720  6 94          CC    K                                                  2  0425  F K                  98
721  6 95          MCW   'IF NO EXTRA OUTPUT DESIRED, PRESS START',PRINT+39 7  0427  M 920 239            98
722  6 96          W                                                        1  0434  2                    98
723  6 97          CC    1                                                  2  0435  F 1                  99
724  6 98          CW    GRPMRK                                             4  0437  ) P06                99
725  6 99          H     XXXX,880                                           7  0441  . 000 880            99
726  7 00          BSS   GOTOE,F                                            5  0448  B 530 F              99
727  7 01          CS    PRINT+39                                           4  0453  / 239                99
728  7 02          MCW   'END OF JOB',PRINT+10                              7  0457  M 930 210            99
729  7 03          W                                                        1  0464  2                    99
730  7 04          CC    K                                                  2  0465  F K                 100
731  7 05          MCW   'INPUT FOR RE-ASSEMBLY ON TAPE UNIT 4',PRINT+36    7  0467  M 966 236           100
732  7 06          W                                                        1  0474  2                   100
733  7 07          RWD   1                                                  5  0475  U (U1 R             100
734  7 08          RWD   4                                                  5  0480  U (U4 R             100
735  7 09          RWD   5                                                  5  0485  U (U5 R             100
736  7 10          RWD   6                                                  5  0490  U (U6 R             100
737  7 11          BW    FINAL,LTAPSW                                       8  0495  V 517 P25 1          101
738  7 12          CS    236                                                4  0503  / 236               101
739  7 13          MCW   'LOADABLE TAPE ON TAPE UNIT 6',PRINT+28             7  0507  M 994 228           101
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SEQ  PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD
740   7 14           CC    K                                                    2  0514  F K               101
741   7 15           W                                                          1  0516  2                 101
742   7 16   FINAL   CC    1                                                    2  0517  F 1               101
743   7 17           H     XXXX,889                                             7  0519  . 000 889         101
744   7 18           B     FINAL+2                                              4  0526  B 519             102
745   7 19   GOTOE   CW    ENDF2,ENDF3                                          7  0530  ) I98 998         102
746   7 20           CW    INPUT+80                                             4  0537  ) A08             102
747   7 21           CS    PUNCH+99                                             4  0541  / 199             102
748   7 22           BSP   1                                                    5  0545  U (U1 B           102
749   7 23           BSP   1                                                    5  0550  U (U1 B           102
750   7 24           BSP   1                                                    5  0555  U (U1 B           102
751   7 25           BSP   1                                                    5  0560  U (U1 B           103
752   7 26           BSP   1                                                    5  0565  U (U1 B           103
753   7 27           BSP   1                                                    5  0570  U (U1 B           103
754   7 28           BSP   1                                                    5  0575  U (U1 B           103
755   7 29           BSP   1                                                    5  0580  U (U1 B           103
756   7 30           RTW   1,PASSE                                             8  0585  L (U1 Z00 R       103
757   7 31           BER   TPERR2                                              5  0593  B 602 L           103
758   7 32           B     PASSE+1                                              4  0598  B Z01             104
759   7 33   TPERR2  MCW   +9,READC=1                                          7  0602  M 995 996         104
760   7 34           BSP   1                                                    5  0609  U (U1 B           104
761   7 35   RETRY   RTW   1,PASSE                                             8  0614  L (U1 Z00 R       104
762   7 36           BER   AGAIN                                              5  0622  B 631 L           104
763   7 37           B     PASSE+1                                              4  0627  B Z01             104
764   7 38   AGAIN   BSP   1                                                    5  0631  U (U1 B           104
765   7 39           S     +1,READC                                             7  0636  S 997 996         105
766   7 40           BWZ   RETRY,READC,B                                       8  0643  V 614 996 B       105
767   7 41           H     XXXX,891                                             7  0651  . 000 891         105
768   7 42           RTW   1,PASSE                                             8  0658  L (U1 Z00 R       105
769   7 43           BSS   TPERR2,E                                            5  0666  B 602 E           105
770   7 44           H     XXXX,812                                             7  0671  . 000 812         106
771   7 45           B     PASSE+1                                              4  0678  B Z01             106
772   7 46           LTORG *                                                        0682
        698          DCW   'END OF ASSEMBLY'                                  15  0696            LIT   106
        701                'IF EXTRA OUTPUT DESIRED, SET SENSE'               34  0730            LIT   107
        702                'SWITCH F ON, AND'                                 16  0746            LIT   108
        706                'B ON FOR CONDENSED CARDS'                         24  0770            LIT   109
        708                'C ON FOR LOADABLE TAPE 6'                         24  0794            LIT   110
        710                'D ON FOR LISTING TAPE  3'                         24  0818            LIT   111
        712                'E ON TO SUPPRESS LISTING'                         24  0842            LIT   112
        714                'G ON FOR NEW SOURCE DECK'                         24  0866            LIT   113
        718                'AND PRESS START'                                  15  0881            LIT   113
        721                'IF NO EXTRA OUTPUT DESIRED, PRESS START'          39  0920            LIT   114
        728                'END OF JOB'                                       10  0930            LIT   115
        731                'INPUT FOR RE-ASSEMBLY ON TAPE UNIT 4'             36  0966            LIT   116
        739                'LOADABLE TAPE ON TAPE UNIT 6'                     28  0994            LIT   117
                           +9                                                  1  0995            LIT   117
        759  READC         =01                                                 1  0996            AREA  117
                           +1                                                  1  0997            LIT   117
773   7 47   ENDF3   DCW   ' '                                                1  0998                  117
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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION TYPE	CARD
774	7	48	PASSE	EQU	1900			1900		
775	7	49		EX	LIBRN				B 000	118
776	7	50		END	LIBRN				/ 000 080	121

AUTØCØDER
ASSEMBLER