```
                                   1              IDENT      OPMSG
                                   2
            00512 P                3              ENTRY      ACCPRINT
            00731 P                4              ENTRY      BUSY
            00615 P                5              ENTRY      CALMSFMT
            00412 P                6              ENTRY      ENDREAD
            00105 P                7              ENTRY      MANINT
            00610 P                8              ENTRY      MOUNTRET
            00575 P                9              ENTRY      MSFLOAD
            00243 P                9+001          ENTRY      OCTPACK
            00005 P               10              ENTRY      OPMSG
            00000 P               11              ENTRY      OPMSGX
            00730 P               12              ENTRY      SCREAM
                                  13
                                  14              EXT        ACCNUM
                                  15              EXT        BIT15
                                  16              EXT        BIT19
                                  17              EXT        BIT22
                                  18              EXT        BIT23
                                  19              EXT        BLANKS
                                  20              EXT        CLRMTWT
                                  21              EXT        CMQSET
                                  22              EXT        DIEBIT
                                  23              EXT        D10
                                  23+001          EXT        DUMP8
                                  24              EXT        FINK
                                  25              EXT        FLAGS
                                  26              EXT        FREEMEM
                                  27              EXT        GETBUFF
                                  28              EXT        GETMEM
                                  29              EXT        GETPAGE
                                  30              EXT        GIVBUFFA
                                  31              EXT        IDLE
                                  32              EXT        INHIBIT
                                  33              EXT        IOCL
                                  34              EXT        IOCLBIT
                                  35              EXT        IOCLEAR
                                  36              EXT        IOSET
                                  37              EXT        IRUNPEND           IRUNBIT + NCENDBIT
                                  38              EXT        KILL
                                  39              EXT        MESFLAG
                                  40              EXT        NCONWAIT
                                  41              EXT        NCENDBIT
                                  42              EXT        NOPIBIT
                                  43              EXT        NOPWAIT
                                  43+001          EXT        NMTWAIT
                                  44              EXT        OPABORT
                                  45              EXT        OPIBIT
                                  46              EXT        OPTERM
                                  47              EXT        OPWAIT
                                  48              EXT        MACHERR
                                  49              EXT        PC
                                  50              EXT        PF1
                                  51              EXT        PSABLK
                                  52              EXT        READ
                                  53              EXT        STRT
                                  54              EXT        SYSCODE
                                  55              EXT        SUSBIT
                                  56              EXT        TAPELIST
                                  57              EXT        TBLKLIST
                                  57+001          EXT        TNUMLIST
                                  58              EXT        TERMINAL
                                  59              EXT        TIMSET
                                  60              EXT        TPUNITS
                                  61              EXT        TRMNUM
                                  62              EXT        USRMAX
                                  63              EXT        USRNUM
                                  64              EXT        VANISH
                                  65              EXT        WARN
                                  66
            00000                 67   IMPURE     EQU        00000
            00001                 68   X1         EQU        1
            00002                 69   X2         EQU        2
            00003                 70   X3         EQU        3
            00000                 71   PSA        EQU        0
            00001                 73   PFLOC      EQU        1
            04000                 74   CORE       EQU        PFLOC*2↑11
            00035                 75   NU         EQU        35B            REGESTER FILE LOCATION WITH
```

```
                        76     *                         NUMBER OF USERS
        00005           77     BUFSIZ  EQU      5        BASE TWO LOG OF INPUT BUFFER SIZE
```

```
****************************************************************************
  80    *                                                                *
  81    *   ROUTINE TO OUTPUT TO THE CONSOLE TYPEWRITER.                  *
  82    *                                                                *
  83    *   ENTER WITH THE FOLLOWING SEQUENCE:                           *
  84    *   ECHA        CHARACTER ADDRESS OF MESSAGE                     *
  85    *   ENQ         MESSAGE LENGTH IN CHARACTERS                     *
  86    *   ENI         RETURN,X2                                        *
  87    *   DINT                                                         *
  88    *   UJP         OPMSG                                            *
  89    *                                                                *
  90    *   IF THE MESSAGE IS FOR OPERATOR INFORMATION ONLY (SUCH AS     *
  91    *   CARD PUNCH ERROR  REMOVE OFFSET CARDS)  ENTRY MAY BE MADE TO *
  92    *   OPMSGX WHICH WILL IGNORE THE MESSAGE IF MORE THAN TEN        *
  93    *   MESSAGES ARE ALL READY QUEUED.                              *
  94    *                                                                *
  95    *   MESSAGE LENGTH MUST BE LESS THAN 252 CHARACTERS.            *
  96    *                                                                *
  97    *   THIS ROUTINE CLOBBERS  A, Q, AND X2                          *
  98    *                                                                *
  99    *                                                                *
 100    *   OPERATOR INPUT IS INITIATED BY PRESSING MANUAL INTERRUPT. THE*
 101    *   INPUT WILL BE DONE IMMEDIATLY IF NO OUTPUT IS IN PROGRESS OR *
 102    *   AS SOON AS THE CURRENT MESSAGE IS FINISHED.  AFTER TYPING IN *
 103    *   THE REQUEST THE OPERATOR SHOULD PRESS MANUAL INTERRUPT AGAIN.*
 104    *                                                                *
 105    *   IF A MISTAKE IS MADE THE OPERATOR MAY PRESS REPEAT AND MANUAL*
 106    *   INTERRUPT TO REDO THE REQUEST.                              *
 107    *                                                                *
        ****************************************************************************
 109
                 00000 P   110    OPMSGX    EQU     *
00000  46000032 P   111              SCHA    OPMSG02         SAVE THE MESSAGE ADDRESS
00001  20000731 P   112              LDA     BUSY            CHECK NUMBER OF QUEUED MESSAGES
00002  05600012     113              ASG     10              IGNORE THIS ONE IF MORE THAN 10
00003  01000007 P   114              UJP     OPMSG00
00004  01200000     115              UJP     0,X2            IGNORE
                     116
                 00005 P   117    OPMSG     EQU     *
00005  46000032 P   118              SCHA    OPMSG02         SAVE THE MESSAGE ADDRESS
00006  20000731 P   119              LDA     BUSY            LOAD THE NUMBER OF MESSAGES
00007  15600001     120    OPMSG00   INA     1               ONE MORE MESSAGE TO PRINT
00010  40000731 P   121              STA     BUSY
00011  17700377   121+001            ANQ     377B            MASK TO LIMIT MESSAGE LENGTH
00012  47200057 P   122              STI     OPMSGRET,X2     SAVE THE RETURN ADDRESS
00013  13000030     123              SHAQ    24
00014  53600000     124              TAI     2
00015  47300056 P   125              STI     OPMSG04,3       SAVE INDEX 3
00016  15600003     126              INA     3               ADD THE KLUDGE CONSTANT
00017  13700025     127              SCAQ    21,3            GENERATE BASE TWO LOG OF BLOCK
                     128    *                                SIZE NEEDED
00020  00777777 X   129              RTJ     GETMEM          GET A BLOCK OF FREE STORAGE
00021  44400660 P   130              SWA,I   TYQEND          LINK IT INTO THE QUEUE
00022  44000660 P   131              SWA     TYQEND
00023  15600001     132              INA     1
00024  12000002     133              SHA     2
00025  46000034 P   134              SCHA    OPMSG03
00026  53200000     135              TIA     2
00027  12000017     136              SHA     15
00030  40400660 P   137              STA,I   TYQEND
00031  15277776     138              INI     -1,2            ADJUST INDEX 2
00032  23400000       00000 0   139    OPMSG02   LQCH    IMPURE,2        MOVE THE OUTPUT BUFFER INTO
00033  13000030     140              SHAQ    24              THE BLOCK OF FREE STORAGE
00034  42400000       00000 0   141    OPMSG03   SACH    IMPURE,2
00035  02600032 P   142              IJD     OPMSG02,2
00036  20000731 P   143              LDA     BUSY            LOAD NUMBER OF QUEUED REQUESTS
00037  04400001     144              ASE,S   1               SKIP IF THIS IS THE ONLY REQUEST
00040  01000056 P   145              UJP     OPMSG04         EXIT IF NOT
                     146
                     147
                 00041 P   148    OPMSG06   EQU     *
00041  21000657 P   149              LDQ     TYQBEGIN
00042  15700001     150              INQ     1
00043  12400002     151              SHQ     2
00044  77510400     152              IOCL    400B            CLEAR THE CONSOLE
00045  53410400     153              TQM     23B
00046  20400657 P   154              LDA,I   TYQBEGIN
00047  12077760     155              SHA     -15
00050  53040000     156              AQA
```

```
00051  53420033        157              TAM      33B
00052  77760000        158              CTO                       START THE TYPING OPERATION
       00053 P         159    OPMSG10   EQU      *                WAIT 70 MSEC MORE
00053  14600106        160              ENA      70
00054  14700060 P      161              ENQ      OPMSG08
00055  00777777 X      162              RTJ      TIMSET
00056  14300000        163    OPMSG04   ENI      IMPURE,X3
00057  01000000        164    OPMSGRET  UJP      IMPURE           RETURN
                       165
       00060 P         166    OPMSG08   EQU      *
00060  47300057 P      167              STI      OPMSGRET,X3      SAVE THE RETURN ADDRESS
00061  77600400        168              PAUS     400B             IS THE CONSOLE DONE
00062  01000053 P      169              UJP      OPMSG10          NOT DONE -- INITIATE THE WAIT
00063  14477776        170              ENA,S    -1               ONE LESS MESSAGE TO PRINT
00064  34000731 P      171              RAD      BUSY
00065  11300000        60000 0   172    ECHA     300000B          COMPUTE THE LENGTH OF THE BLOCK
00066  30400657 P      173              ADA,I    TYQBEGIN         OF FREE STORAGE
00067  13700006        174              SCAQ     6,X3
00070  20000657 P      175              LDA      TYQBEGIN
00071  54500657 P      176              LDI,I    TYQBEGIN,1
00072  47100657 P      177              STI      TYQBEGIN,1       ADVANCE THE QUEUE POINTER
00073  00777777 X      178              RTJ      FREEMEM          RETURN THE BLOCK OF FREE STORAGE
00074  14600657        179              ENA      TYQBEGIN
00075  05100001        180              ISG      000001B,1        SKIP IF THE QUEUE IS NOT EMPTY
00076  44000660 P      181              SWA      TYQEND           ADJUST THE END POINTER
00077  04000000        182    INWAIT    ISE      IMPURE,0         SKIP IF NO INPUT IS WAITING
00100  01000112 P      183              UJP      MAN00            DO THE INPUT FOR THE OPERATOR
00101  02500041        184              IJD      OPMSG06,1
00102  14677777 X      184+001          ENA      NCONWAIT         CONSOLE WAIT CLEAR
00103  54100057 P      184+002          LDI      OPMSGRET,X1      GET THE RETURN ADDRESS
00104  01000360 P      184+003          UJP      CLEARALL         CLEAR EVERYBODY IN THE HOUSE
```

```
************************************************************************
195    *                                                              *
196    **          ENTER HERE AFTER MANUAL INTERRUPT                  *
197    *                                                              *
************************************************************************
                      199
                      200
00105  77730000        201   MANINT    DINT                       PREVENT INTERFERENCE
00106  47300057 P      202             STI     OPMSGRET,X3        SAVE THE RETURN ADDRESS
00107  20000731 P      203             LDA     BUSY               LOAD THE STATUS WORD
00110  03300134 P      204             AZJ,LT  MAN03              JUMP IF CTI IN PROGRESS
00111  03100132 P      205             AZJ,NE  MANDELAY           JUMP IF CTO IN PROGRESS
00112  47000077 P      206   MAN00     STI     INWAIT,0           FORGET OPERATCR PRESSED MI
00113  14300005        207             ENI     BUFSIZ,X3
00114  00700020 X      208             RTJ     GETMEM             REQUEST A BLOCK OF MEMORY
00115  47300125 P      209             STI     MAN02,X3           SAVE THE ADDRESS OF THE BLOCK
       00116  P        210   MAN01     EQU     *
00116  77510400        211             IOCL    4003               CLEAR THE CONSOLE
00117  12000002        212             SHA     2                  FORM CHARACTER ADDRESS
00120  53420023        213             TAM     23B                INITIALIZE THE BEGINNING ADDRESS
00121  15600200        214             INA     4*2↑BUFSIZ         CALCULATE THE ENDING ADDRESS
00122  53420033        215             TAM     33B
00123  14300037        216             ENI     2↑BUFSIZ-1,X2
00124  20077777 X      217             LDA     BLANKS
00125  40200000        218   MAN02     STA     IMPURE,X2
00126  02600125 P      219             IJD     MAN02,X2           BLANK OUT THE INPUT BUFFER
00127  42003544 P    00731 0  220      SACH    BUSY               REMEMBER CTI IN PROGRESS
00130  77750000        221             CTI                        TURN THE TYPE LCAD LITE ON
00131  01000057 P      222             UJP     OPMSGRET
                      223
00132  47300077 P      224   MANDELAY  STI     INWAIT,X3          SET THE DELAYED INTERRUPT FLAG
00133  01300000        225             UJP     0,X3               AND RETURN
                      226
       00134  P        227   MAN03     EQU     *
00134  47300240 P      228             STI     MANRET,X3          SAVE THE RETURN ADDRESS AGAIN
00135  54200125 P      229             LDI     MAN02,X2           LOAD THE ADDRESS OF THE BUFFER
00136  53200000        230             TIA     X2                 PUT IT INTO A ALSO
00137  77602000        231             PAUS    2000B              SKIP IF REPEAT IS ACTIVE
00140  01000142 P      232             UJP     *+2
00141  01000116 P      233             UJP     MAN01              REDO THE INPUT
00142  77600400        234             PAUS    4003               DID THE OPERATOR PRESS CLEAR
00143  01000145 P      235             UJP     *+2
00144  01000207 P      236             UJP     ERROR              JUMP IF HE DID
00145  14300222 P      237             ENI     MAN05,X3           ENTER RETURN FOR EXTERNALS
00146  20200000        238             LDA     0,X2               CHECK THE ENTIRE WORD
00147  14577777        239             ENQ,S   77777B
00150  14100044        240             ENI     WLNTH,1            LENGTH OF SECCND TABLE
00151  06200664 P      241             MEQ     TWABLE,2
00152  01000160 P      241+001         UJP     MAN04              CHECK FOR ONE CHAR COMMAND
00153  21100665 P      241+002         LDQ     TWABLE+1,X1        GET ENTRY WORD ( SAVE A )
00154  00100157 P      241+003         SJ1     *+3                IF SJ1 ON DON≠T CHECK
00155  05500000        241+004         QSG,S   0                  ALLCW WITHOUT SJ1
00156  01000207 P      241+005         UJP     ERROR              NEEDED SJ1
00157  01500665 P      243             UJP,I   TWABLE+1,1         JUMP OFF TO ROUTINE
       00160  P        243+001 MAN04   EQU     *
00160  14700077        244             ENQ     77B
00161  12400022        245             SHQ     18
00162  27200000        246             LDL     0,X2
00163  14100003        247             ENI     LENGTH,1           CHECK THE FIRST CHARACTER
00164  06100661 P      248             MEQ     TABLE,1
00165  01000207 P      249             UJP     ERROR
00166  01500661 P      250             UJP,I   TABLE,1
                      251
************************************************************************
                      253   *                                      *
                      254   *       ROUTINE TO PACK A TERMINAL NUMBER    *
                      255   *                                      *
************************************************************************
                      257
00167  20177777 X      258   PACKEND   LDA     PSABLK,X1          LOAD THE POINTER TO THE PSA
00170  53700000        259             TAI     X3+PSA
00171  05300001        260             ISG     1,X3+PSA           IS A PSA THERE
00172  01000207 P      261             UJP     ERROR
00173  01000000        262   PACK      UJP     IMPURE
00174  12400003        263             SHQ     3                  PACK A TERMINAL NUMBER
00175  13000003        264             SHAQ    3
00176  12400003        265             SHQ     3
00177  13000003        266             SHAQ    3
00200  53500000        267             TAI     X1
```

```
00201  17707070     268          ANQ    070070B        CHECK THE SECOND AND THIRD DIGITS
00202  04700000     269          QSE    0              FOR OCTAL NUMBERS
00203  01000207 P   270          UJP    ERROR          THEY WERE NOT
00204  15130000     271          XOI    300000B,X1     A COMMA IS A 73
00205  05177777 X   272          ISG    USRMAX,X1
00206  01000167 P   273          UJP    PACKEND
                    274
       00207 P      275  ERROR   EQU    *
00207  14300002     276          ENI    2,3
00210  00700114 X   277          RTJ    GETMEM
00211  25000217 P   278          LDAQ   QMARKS
00212  40300002     279          STA    2,3
00213  14600007     280          ENA    7
00214  12000017     281          SHA    15
00215  35000657 P   282          SSA    TYQBEGIN
00216  01000226 P   283          UJP    MAN06
00217  17177700     284  QMARKS  OCT    17177700,77771717
                    285
00221  01000207 P   286          UJP    ERROR          ERROR RETURN FOR EXTERNAL ROUTINE
00222  14300001     287  MAN05   ENI    1,3
00223  00700210 X   288          RTJ    GETMEM
00224  25000657 P   289          LDAQ   TYQBEGIN
00225  35077777 X   290          SSA    BIT15
00226  45300000     291  MAN06   STAQ   0,3
00227  47300657 P   292          STI    TYQBEGIN,3
00230  05600001     293          ASG    1              SKIP IF THE QUEUE IS NOT EMPTY
00231  47300660 P   294          STI    TYQEND,3       SET THE END POINTER PROPERLY
00232  20000125 P   295          LDA    MAN02          LOAD THE BUFFER ADDRESS
00233  14300005     296          ENI    BUFSIZ,X3
00234  04600000     297          ASE    0
00235  00700073 X   298          RTJ    FREEMEM
00236  20077777 X   299          LDA    BIT22          CLEAR THE SIGN BIT AND INCREMENT
00237  34000731 P   300          RAD    BUSY
00240  14600000     301  MANRET  ENA    IMPURE         ENTER THE RETURN ADDRESS
00241  44000057 P   302          SWA    OPMSGRET
00242  01000041 P   303          UJP    OPMSG06
```

```
                                        ***************************************************************************
                          303+003 *                                                                          *
                          303+004 *       OCTPACK --                                                         *
                          303+005 *                                                                          *
                          303+006 *       ROUTINE TO PACK THE UPPER 12 BITS OF Q INTO BCD CHARS IN A.        *
                          303+007 *                                                                          *
                          303+008 *       ENI        <RETURN ADDRESS>,X3                                     *
                          303+009 *       LDQ        <NUMBER>             1234XXXX FOR EXAMPLE                *
                          303+010 *       UJP        OCTPACK                                                 *
                          303+011 *                                                                          *
                          303+012 *       -- ON EXIT --                                                      *
                          303+013 *                                                                          *
                          303+014 *       X1 -- ZERO                                                         *
                          303+015 *       X2 -- UNCHANGED                                                    *
                          303+016 *       X3 -- RETURN ADDRESS UNCHANGED                                     *
                          303+017 *       A  -- 01020304              PACKED AS BCD CHARACTERS               *
                          303+018 *       Q  -- XXXX0000              LOWER 12 BITS OF Q IN UPPER 12         *
                          303+019 *                                                                          *
                                        ***************************************************************************

            00243 P       303+022  OCTPACK  EQU        *
00243  14600000           303+023           ENA        0                 CLEAR FOR STARTS
00244  14100003           303+024           ENI        3,X1              LOOP COUNTER
00245  12000003           303+025           SHA        3                 UP FOR SHIFT
00246  13000003           303+026           SHAQ       3                 SHIFT UP TO MAKE BCD
00247  02500245 P         303+027           IJD        *-2,X1            LOOP FOUR ITERATIONS
00250  01300000           303+028           UJP        0,X3              AND RETURN
```

```
                              ******************************************************************
                    306    *                                                                 *
                    307    *         ABORT,TERMINAL                                           *
                    308    *                                                                 *
                              ******************************************************************
                    310
                    311
         00251 P    312    ABORT   EQU      *
00251 25200001      313            LDAQ     1,X2                    LOAD THE TERMINAL
00252 13077771      314            SHAQ     -6
00253 00700173 P    315            RTJ      PACK                    CONVERT TO BINARY
00254 03300222 X    316            AZJ,LT   MAN05                   JUMP IF NCT LCGGED IN
00255 14677777 X    317            ENA      OPABORT                 ERROR MESSAGE NUMBER
00256 00777777 X    318            RTJ      CMQSET                  PUT INTO CONTROL MODE
00257 01000222 P    319            UJP      MAN05
                    320
                    321
                              ******************************************************************
                    323    *                                                                 *
                    324    *         ALLOW                                                    *
                    325    *                                                                 *
                              ******************************************************************
                    327
         00260 P    328    A       EQU      *                       ROUTINE TO UN-INHIBIT THE USERS
00260 14477777 X    329            ENA,S    NOPIBIT                 GET - OP INHIBIT BIT
00261 37077777 X    330            LPA      INHIBIT
00262 01000451 P    331            UJP      SETINHIB
                    332
                              ******************************************************************
                    334    *                                                                 *
                    335    *         CLEAR,C                                                  *
                    336    *                                                                 *
                              ******************************************************************
                    338
         00263 P    339    C       EQU      *                       ROUTINE TO ALLCW CHANNEL CLEAR
00263 20200001      340            LDA      1,X2                    LOAD THE CHANNEL NUMBER
00264 12077771      341            SHA      -6
00265 16617300      342            XOA      17300B
00266 05600010      343            ASG      00010B                  SKIP IF INVALID
00267 01000271 P    344            UJP      *+2
00270 01000207 P    345            UJP      ERROR
00271 44077777 X    346            SWA      IOCL
00272 14677777 X    347            ENA      IOCLBIT
00273 35077777 X    348            SSA      FLAGS
00274 40000273 X    349            STA      FLAGS
00275 01000222 P    350            UJP      MAN05
                    351
                              ******************************************************************
                    353    *                                                                 *
                    354    *         GO,TERMINAL                                              *
                    355    *                                                                 *
                              ******************************************************************
                    357
         00276 P    358    G       EQU      *                       ROUTINE TO RELEASE THE EFFECT OF
00276 25200000      359            LDAQ     0,X2                    STOP,TERMINAL
00277 00700173 P    360            RTJ      PACK
00300 14477777 X    361            ENA,S    NOPWAIT
00301 00777777 X    362            RTJ      IOCLEAR
00302 01000222 P    363            UJP      MAN05
                    364
                              ******************************************************************
                    366    *                                                                 *
                    367    *         LOGOFF,TERMINAL                                          *
                    368    *                                                                 *
                              ******************************************************************
                    370
00303 25200001      371    L       LDAQ     1,X2                    #LOGOFF#
00304 00700173 P    372            RTJ      PACK
00305 05100001      373            ISG      1,X1                    PREVENT OPERATOR OR MALFUNCTIONIN
00306 01000207 P    374            UJP      ERROR                   TYPEWRITER FROM HITTING PHANTOM
00307 14677777 X    375            ENA      OPTERM                  SAY TERMINATE THIS GUY
00310 44000650 P    376            SWA      QMSET
00311 14700001      377            ENQ      1                       SAY TO LOGOFF BATCH JCBS
00312 00700636 P    378            RTJ      TERM
00313 01000356 P    378+001        UJP      CLEARMTW                GO CLEAR ALL MT WAIT CN ALL
```

```
                                   ****************************************************************************
                              382  *                                                                        *
                              383  *         MTX,YYYYY                                                       *
                              384  *                                                                        *
                                   ****************************************************************************
                              386
          00314 P             387  M        EQU      *
00314  53200000               388           TIA      X2                   BUFFER ADDRESS TO A
00315  12000002               389           SHA      2
00316  15600013               390           INA      11
00317  46000337 P             391           SCHA     M01
00320  20200000               392           LDA      0,X2                 LOAD THE UNIT NUMBER
00321  12077771               393           SHA      -6
00322  17600077               394           ANA      778                  SAVE JUST ONE CHARACTER
00323  53700000               395           TAI      X3                   SAVE IN X3
00324  05377777 X             396           ISG      TPUNITS,X3           CHECK FOR UNIT OUT OF RANGE
00325  01000327 P             397           UJP      *+2
00326  01000207 P             398           UJP      ERROR
00327  14100324 X             399           ENI      TPUNITS,X1
00330  14577777               400           ENQ,S    77777B               CHECK FOR TWO TAPES ON THIS UNIT
00331  35077777 X             401           SSA      BIT23
00332  06177777 X             402           MEQ      TAPELIST,1
00333  01000335 P             403           UJP      *+2
00334  01000207 P             404           UJP      ERROR                PHYSICAL IMPOSSIBLITY
00335  14277770               405           ENI      -7,2
00336  14600000               406           ENA      0
00337  23400000      00000 0  407  M01      LQCH     IMPURE,2
00340  05700012               408           QSG      10
00341  02200371 P             409           IJI      M02,2
00342  14577777               410           ENQ,S    77777B
00343  14100327 X             411           ENI      TPUNITS,1
00344  04400000               412           ASE,S    0                    ZERO IS AN ILLEGAL NUMBER
00345  06100332 X             413           MEQ      TAPELIST,1
00346  01000207 P             414           UJP      ERROR
00347  40377777 X             414+001       STA      TNUMLIST,X3          SAVE NUMBER OF THIS TAPE FOR ERRO
00350  14477776               415           ENA,S    -1                   TURN OFF THE RACKET
00351  34000730 P             416           RAD      SCREAM
00352  53300000               417           TIA      X3                   UNIT NUMBER TO (A)
00353  40577777 X             418           STA,I    TBLKLIST,1
00354  35000331 X             419           SSA      BIT23                SAVE THE UNIT NUMBER IN THE TABLE
00355  40100345 X             420           STA      TAPELIST,X1
          00356 P             420+001 CLEARMTW EQU   *
00356  14677777 X             420+002       ENA      NMTWAIT              MAG TAPE WIAT
00357  14100222 P             420+003       ENI      MAN05,X1             RETURN ADDRESS
                              420+004
          00360 P             420+005 CLEARALL EQU   *
00360  54377777 X             420+006       LDI      IDLE,X3+PSA          GET POINTER TO THE FIRST USER
00361  44000363 P             420+007       SWA      CLEARBIT             SAVE BITS TO CLEAR
00362  53230035               420+008       TMI      NU,X2                NUMBER OF USERS TO CLEAR
00363  14400000               420+009 CLEARBIT ENA,S IMPURE              GET THE BIT
00364  00700301 X             420+010       RTJ      IOCLEAR              AND CLEAR SOMEONE
00365  20300000               420+011       LDA      0,X3+PSA             GET POINTER TO NEXT USER
00366  53700000               420+012       TAI      X3+PSA               AND POINT TO HIM
00367  02600363 P             420+013       IJD      CLEARBIT,X2          LOOP TIL OUT OF USERS
00370  01100000               420+014       UJP      0,X1                 RETURN TO CALLER
                              420+015
00371  41000653 P             423  M02      STQ      TEMP1
00372  50077777 X             424           MUA      D10
00373  30000653 P             425           ADA      TEMP1
00374  01000337 P             426           UJP      M01
                              427
                                   ****************************************************************************
                              429  *                                                                        *
                              430  *         STOP,TERMINAL                                                  *
                              431  *                                                                        *
                                   ****************************************************************************
                              433
          00375 P             434  S        EQU      *                    ROUTINE TO STOP A GIVEN TERMINAL
00375  20200001               435           LDA      1,X2
00376  13077763               436           SHAQ     -12
00377  00700173 P             437           RTJ      PACK
00400  14677777 X             438           ENA      OPWAIT
00401  00777777 X             439           RTJ      IOSET
00402  01000222 P             440           UJP      MAN05
```

```
                                  ****************************************************************************
                              443   *                                                                    *
                              444   *         END                                                        *
                              445   *                                                                    *
                                    ****************************************************************************
                              447
           00403 P           448   END       EQU     *
00403  53200000               449             TIA     X2                    PAGE NUMBER TO (A)
00404  14700000               450             ENQ     0
00405  13000043               451             SHAQ    24+11                 FORM CORE ADDRESS IN (Q)
00406  47300414 P             452             STI     END02,X3              SAVE THE RETURN ADDRESS
00407  14277777 X             453             ENI     READ,X2               READ A PAGE
00410  14104000               454             ENI     40008,X1
00411  14300416 P             455             ENI     END04,X3              ENTER THE COMPLETION ADDRESS
00412  14600000               456   ENDREAD   ENA     IMPURE                ENTER THE ADDRESS OF THE END
00413  00777777 X             457             RTJ     FINK                  BLOCK AND READ IT IN
00414  01000000               458   END02     UJP     IMPURE
                              459
00415  01000415 P             460             UJP     *                     IRRECOVERABLE ERROR
00416  14200360 X             461   END04     ENI     IDLE,X2               CHANGE IDLES PSA
00417  14604001               462             ENA     40008+1
00420  40277777 X             463             STA     PC,X2
00421  13000017               464             SHAQ    24-9                  FORM QUARTER PAGE ADDRESS IN (A)
00422  44277777 X             465             SWA     PF1,X2                AND SET IDLES PAGE FILE
00423  01300000               466             UJP     0,X3
                              467
           00424 P           468   E         EQU     *                     ROUTINE TO END THE SYSTEM
00424  20000261 X             469             LDA     INHIBIT               SEE IF COMMAND LEGAL
00425  17677777 X             470             ANA     IRUNPEND              SEE IF INITIAL OR END RUNNING
00426  03100207 P             471             AZJ,NE  ERROR                 YES - NO CAN END
00427  14677777 X             472             ENA     NOENDBIT              GET END RUNNING BIT
00430  34000424 X             473             RAD     INHIBIT               SET INTO INHIBIT WORD
00431  14300403 P             474             ENI     END,X3                COMPLETION RETURN
00432  00777777 X             475             RTJ     GETPAGE               START A PAGE COMING IN.
00433  14200222 P             476             ENI     MAN05,X2              DONT OP INHIBIT
00434  14600307 X             477             ENA     OPTERM                SAY TERMINATE THE USER
00435  01000440 P             478             UJP     T3                    GO DO IT
                              479
                                    ****************************************************************************
                              481   *                                                                    *
                              482   *         TERMINATE                                                  *
                              483   *                                                                    *
                                    ****************************************************************************
                              485
           00436 P           486   T         EQU     *                     ROUTINE TO LOG OFF ALL REAL-TIME
00436  14600434 X             487             ENA     OPTERM                SAY OPERATOR TERMINATION
           00437 P           488   T2        EQU     *
00437  14200447 P             489             ENI     I,X2                  OP INHIBIT AFTER OFFICIAL TERM
           00440 P           490   T3        EQU     *
00440  44000650 P             491             SWA     QMSET                 SET REQUEST FLAG
00441  14177777 X             492             ENI     TRMNUM,X1
00442  14700000               493             ENQ     0                     DONT LOGOFF BATCH JOBS
00443  00700636 P             494             RTJ     TERM
00444  10500001               495             ISD     1,X1                  DON#T LOGOFF PHANTOM
00445  01000442 P             496             UJP     *-3
00446  01200000               497             UJP     0,X2                  RETURN TO APPROPRIATE PLACE
                              498
                                    ****************************************************************************
                              500   *                                                                    *
                              501   *         INHIBIT                                                    *
                              502   *                                                                    *
                                    ****************************************************************************
                              504
           00447 P           505   I         EQU     *                     ROUTINE TO INHIBIT USERS FROM
00447  14677777 X             506             ENA     OPIBIT                LOGGING INTO THE SYSTEM
00450  35000430 X             507   SSINHIB   SSA     INHIBIT
00451  40000450 X             508   SETINHIB  STA     INHIBIT
00452  01000222 P             509             UJP     MAN05
```

```
                                 ***************************************************************
                         512     *                                                             *
                         513     *           DIE                                               *
                         514     *                                                             *
                                 ***************************************************************
                         516
            00453 P      517     DIE      EQU      *               QUICKLY TERMINATE THE SYSTEM
00453  20000451 X        518              LDA      INHIBIT
00454  17600427 X        519              ANA      NOENDBIT        LEGAL ONLY IF END IN PROGRESS
00455  03000207 P        520              AZJ,EQ   ERROR           NO END - ERROR
00456  14677777 X        521              ENA      DIEBIT
00457  01000450 P        522              UJP      SSINHIB
                         523
                                 ***************************************************************
                         525     *                                                             *
                         526     *           SUSPEND                                           *
                         527     *                                                             *
                                 ***************************************************************
            00460 P      529     SUSP     EQU      *
00460  20000453 X        530              LDA      INHIBIT
00461  17600454 X        531              ANA      NOENDBIT        LEGAL ONLY IF END IN PROGRESS
00462  03000207 P        532              AZJ,EQ   ERROR           END NOT IN PROGRESS -ERROR
00463  14677777 X        533              ENA      SUSBIT          GET SUSPEND BIT
00464  01000450 P        534              UJP      SSINHIB         SET INTO INHIBIT WORD
                                 ***************************************************************
                         536     *                                                             *
                         537     *           WARN                                              *
                         538     *                                                             *
                                 ***************************************************************
            00465 P      540     W        EQU      *
00465  14677777 X        541              ENA      WARN            SAY TO WARN USER OF IMPENDING
00466  01000437 P        542              UJP      T2              DOOM.
                                 ***************************************************************
                         544     *                                                             *
                         545     *           MESSAGE/NOMESSAGE                                 *
                         546     *                                                             *
                         547     *                                                             *
                         548     *     ENTER WITH A=4HMESS TO TURN ON MESSAGE (EVEN)           *
                         549     *     ENTER WITH A=4HNOME TO TURN OFF MESSAGE (ODD)           *
                         550     *                                                             *
                                 ***************************************************************
            00467 P      552     MESONOFF EQU      *
00467  12077776          553              SHA      -1
00470  17600020          554              ANA      20B             THE COMMANDS DIFFER IN THE PROPER
00471  44077777 X        555              SWA      MESFLAG         SET MESSAGE FLAG
00472  01000222 P        556              UJP      MAN05
```

```
                                    *****************************************************************************
                          559       *                                                                           *
                          560       *                        USERLIST                                           *
                          561       *                                                                           *
                                    *****************************************************************************
                          563
           00473 P        564       USERLIST EQU     *                      PRINT OUT A LIST OF ALL USERS
00473 14200205 X          565                ENI     USRMAX,X2
00474 01000510 P          566                UJP     USER04
                          567
00475 20200167 X          568       USER02   LDA     PSABLK,X2              LOAD THE PSA POINTER
00476 05600001            569                ASG     1                      SKIP IF PRESENT
00477 01000510 P          570                UJP     USER04                 JUMP IF NOT
00500 53700000            571                TAI     X3+PSA
00501 12000001            572                SHA     1                      CHECK IF LOGON/LOGOFF STATUS
00502 03300510 P          573                AZJ,LT  USER04                 JUMP IF IT IS
00503 14200505 P          574                ENI     *+2,X2                 ENTER THE RETURN ADDRESS
00504 01000512 P          575                UJP     ACCPRINT               PRINT OUT THE JOB/USER NUMBER
00505 20377777 X          576                LDA     TERMINAL,X3+PSA        LOAD THE TERMINAL NUMBER
00506 12077760            577                SHA     -15
00507 53600000            578                TAI     X2
00510 02600475 P          579       USER04   IJD     USER02,X2
00511 01000222 P          580                UJP     MAN05
                          581
                          582
           00512 P        583       ACCPRINT EQU     *
00512 20377777 X          584                LDA     ACCNUM,X3+PSA          LOAD THE ACCOUNT NUMBER
00513 14100006            585                ENI     6,1
00514 13077747            586       U04      SHAQ    -24
00515 51000372 X          587                DVA     D10
00516 43403254 P 00653 0  588                SQCH    UBUFFER+4,1
00517 02500514 P          589                IJD     U04,1
00520 21377777 X          590                LDQ     USRNUM,X3+PSA          LOAD THE USER CODE
00521 13000006            591                SHAQ    6
00522 05600011            592                ASG     9
00523 01000542 P          593                UJP     U06
00524 13077771            594                SHAQ    -6
00525 41000655 P          595                STQ     UBUFFER+3
00526 14600077            596                ENA     77B
00527 42003270 P 00656 0  597                SACH    UBUFFER+16
00530 14600021            598                ENA     17                     ENTER MESSAGE LENGTH
00531 21300505 X          599       U05      LDQ     TERMINAL,X3+PSA        LOAD THE TERMINAL NUMBER
00532 14177775            600                ENI     -2,X1
00533 17577770            601                ANQ,S   77770B
00534 12400003            602                SHQ     3
00535 43403252 P 00652 2  603                SQCH    UBUFFER+2,X1
00536 02100533 P          604                IJI     *-3,X1
00537 13000030            605                SHAQ    24
00540 11003250 P 00652 0  606                ECHA    UBUFFER
00541 01000005 P          607                UJP     OPMSG
00542 13000022            608       U06      SHAQ    18
00543 14100005            609                ENI     5,1
00544 13077747            610                SHAQ    -24
00545 51000515 X          611                DVA     D10
00546 43403264 P 00655 0  612                SQCH    UBUFFER+12,1
00547 02500544 P          613                IJD     *-3,1
00550 14600023            614                ENA     19                     ENTER THE MESSAGE LENGTH
00551 01000531 P          615                UJP     U05
```

```
                                    ****************************************************************************
                           618      *                                                                          *
                           619      *            PACK,XXX,CXEXUXX                                               *
                           620      *                                                                          *
                                    ****************************************************************************
                           622
            00552 P        623      PACKREQ   EQU       *
00552  04000000            624      PACKFLAG  ISE       IMPURE,0           SHOULD WE ALLOW THE REQUEST
00553  01000207 P          625                UJP       ERROR
00554  47000125 P          626                STI       MAN02,0           SAVE THE INPUT REQUEST
00555  47200604 P          627                STI       PACKBLK,X2        REMEMBER WHERE THE BLOCK IS
00556  47200552 P          628                STI       PACKFLAG,X2       DON≠T ALLOW ANY MORE REQUESTS
00557  54300240 P          629                LDI       MANRET,X3         LOAD THE RETURN ADDRESS
00560  47300602 P          630                STI       PACKEXIT,X3       SAVE THE RETURN
00561  14300566 P          631                ENI       PACK02,X3         CHANGE THE RETURN TO RETURN TO
00562  47300240 P          632                STI       MANRET,X3         HERE
00563  01000222 P          633                UJP       MAN05
                           634
            00564 P        635      PACK01    EQU       *
00564  47200602 P          636                STI       PACKEXIT,X2       SAVE THE RETURN ADDRESS
00565  01000572 P          637                UJP       PACK03
                           638
            00566 P        639      PACK02    EQU       *
00566  14700564 P          640                ENQ       PACK01            ENTER INTERRUPT RETURN
00567  14600571 P          641                ENA       *+2               ENTER IMMEDIATE RETURN
00570  01077777 X          642                UJP       GETBUFF
00571  03300602 P          643                AZJ,LT    PACKEXIT          EXIT IF NO BLOCK
            00572 P        644      PACK03    EQU       *
00572  44000612 P          645                SWA       PACKPAGE          SAVE THE 1/4 PAGE ADDRESS
00573  14700000            646                ENQ       0
00574  13077760            647                SHAQ      -24+9             FORM 18 BIT CORE ADDRESS IN (Q)
00575  14600000            648      MSFLOAD   ENA       IMPURE            ENTER THE DISK ADDRESS
00576  14101000            649                ENI       1000B,X1          READ IN THE WHOLE FILE BLOCK
00577  14200407 X          650                ENI       READ,X2
00600  14300604 P          651                ENI       PACKBLK,X3        ENTER THE INTERRUPT RETURN
00601  00700413 X          652                RTJ       FINK
00602  01000000 P          653      PACKEXIT  UJP       IMPURE
00603  00777777 X          654                RTJ       MACHERR
00604  14200000            655      PACKBLK   ENI       IMPURE,X2         ENTER THE BUFFER ADDRESS
00605  13000017            656                SHAQ      24-9              FORM 1/4 PAGE ADDRESS IN A
00606  77640001            657                APF       PFLOC
00607  01004000            658                UJP       CORE
                           659
            00610 P        660      MOUNTRET  EQU       *
00610  47000552 P          661                STI       PACKFLAG,0        ALLOW THE NEXT MOUNT REQUEST
00611  77640001            662                APF       PFLOC             RESTORE PFLOC
00612  14600000            663      PACKPAGE  ENA       IMPURE            ENTER THE 1/4 PAGE NUMBER
00613  47000612 P          664                STI       PACKPAGE,0        FORGET WE HAVE THE CORE
00614  01077777 X          665                UJP       GIVBUFFA
                           667
            00615 P        668      CALMSFMT  EQU       *
00615  20000552 P          669                LDA       PACKFLAG          IS THE ROUTINE IN CORE
00616  04600000            670                ASE       0,X3
00617  01300000            671                UJP       0,X3              EXIT IF IT IS
00620  47300602 P          672                STI       PACKEXIT,X3       SAVE THE RETURN ADDRESS
00621  47300552 P          673                STI       PACKFLAG,X3       SAY THE ROUTINE IS COMMING IN
00622  47000604 P          674                STI       PACKBLK,0         SAY NO MESSAGE AREA
00623  01000566 P          675                UJP       PACK02
```

```
*****************************************************************************
                        678    *                                                         *
                        679    *       XINT,EC                                           *
                        680    *                                                         *
*****************************************************************************
                        682
00624  20200001         683    X        LDA     1,X2             ROUTINE TO SIMULATE AN EXTERNAL
00625  13077755         684             SHAQ    -24+6            EQUIPMENT INTERRUPT
00626  12400003         685             SHQ     3                WITHOUT STOPPING THE PROCESSOR
00627  13000003         686             SHAQ    3
00630  17600077         687             ANA     0077B            MASK TO AN INTERRUPT CODE
00631  44000005         688             SWA     00005B           STORE THE INTERRUPT CODE AT 00005
00632  00700004         689             RTJ     00004B           SAVE PC AT 00004 AND INTERRUPT
00633  01000222 P       690             UJP     MAN05            RETURN
                        691
*****************************************************************************
                        693    *                                                         *
                        694    *       THIS ROUTINE IS USED TO LOGOFF A USER              *
                        695    *                                                         *
*****************************************************************************
                        697
00634  14677777 X       698    TERMX    ENA     VANISH           CALL DESTRUCT
00635  00700256 X       699    TERMY    RTJ     CMQSET
00636  01000000         700    TERM     UJP     IMPURE
00637  20100475 X       701             LDA     PSABLK,X1
00640  05600001         702             ASG     1
00641  01000636 P       703             UJP     TERM
00642  53700000         704             TAI     X3+PSA
00643  03300634 P       705             AZJ,LT  TERMX
00644  20377777 X       706             LDA     SYSCODE,X3+PSA
00645  37077777 X       707             LPA     BIT19            CHECK BATCH JOB BIT
00646  04700001         708             QSE     1                SKIP IF IGNORE BATCH
00647  03100636 P       709             AZJ,NE  TERM             LEAVE THE BATCH JOB ALONE
00650  14600000         710    QMSET    ENA     IMPURE           SET APPROPRIATE FLAG
00651  01000635 P       711             UJP     TERMY
                        712
00652  45454560         713    UBUFFER  BCD     5,NNN JJJJJJJ/UUUUUU^
       00653 P          714    TEMP1    EQU     UBUFFER+1             1 WORD TEMPORARY
00657  00000000         715    TYQBEGIN VFD     09/000,A15/IMPURE,H6/^,03/0,A15/TYQBEGIN+IMPURE
       00660 P          716    TYQEND   EQU     TYQBEGIN+1
       00661 P          717    TABLE    EQU     *
00661  27000276         718             VFD     H6/G,03/0,A15/G
00662  44000314         719             VFD     H6/M,03/0,A15/M
00663  64000473         720             VFD     H6/U,03/0,A15/USERLIST
       00003            721    LENGTH   EQU     *-TABLE
                        721+001 *   SIGN BIT ON AN ENTRY MEANS IT REQUIRES SJ1
       00664 P          722    TWABLE   EQU     *
00664  44256262         723             VFD     H24/MESS,09/000,A15/MESONOFF
00666  45464425         724             VFD     H24/NOME,09/000,A15/MESONOFF
00670  66215145         725             VFD     H24/WARN,09/000,A15/W
00672  21224651         726             VFD     H24/ABOR,09/000,A15/ABORT
00674  21434346         727             VFD     H24/ALLO,09/000,A15/A
00676  24312560         728             VFD     H24/DIE,09/000,A15/DIE
00700  62646247         729             VFD     H24/SUSP,09/000,A15/SUSP
00702  23432521         730             VFD     H24/CLEA,A24/C
00704  67314563         730+001         VFD     H24/XINT,09/400,A15/X
00706  25452460         732             VFD     H24/END,A24/E
00710  31453031         733             VFD     H24/INHI,A24/I
00712  47212342         734             VFD     H24/PACK,09/000,A15/PACKREQ
00714  42314343         734+001         VFD     H24/KILL,09/400,A15/KILL
00716  43462746         736             VFD     H24/LOGO,A24/L
00720  62634647         737             VFD     H24/STOP,A24/S
00722  63255144         738             VFD     H24/TERM,A24/T
00724  62635163         738+001         VFD     H24/STRT,09/400,A15/STRT
00726  24644447         738+002         VFD     H24/DUMP,09/000,A15/DUMP8
       00044            740    WLNTH    EQU     *-TWABLE
                        741
00730  00000000         742    SCREAM   VFD     A24/IMPURE       HAVE THE CONSOLE CRY IF NON ZERO
00731  00000000         743    BUSY     VFD     A6/IMPURE,03/0,A15/IMPURE
                        744    *                                 NEGATIVE SEZ CTI IN PROGRESS
                        745    *                                 LOWER 15 BITS IS COUNTER OF
                        746    *                                 NUMBER OF QUELED OUTPUT MESSAGES
                        747             END
```

NO LINES WITH ERRORS

```
  A             00260P    328    727 00675P
  ABORT         00251P    312    726 00673P
  ACCNUM     X            14     584 00512P
  ACCPRINT E    00512P    583      3 00000P     575 00504P
  BIT15      X            15     290 00225P
  BIT19      X            16     707 00645P
  BIT22      X            17     299 00236P
  BIT23      X            18     401 00331P     419 00354P
  BLANKS     X            19     217 00124P
  BUFSIZ        00005     77     207 00113P     214 00121P     216 00123P     296 00233P
  BUSY     E    00731P    743      4 00000P     112 00001P     119 00006P     121 00010P     143 00036P     171 00064P
                                 203 00107P     220 00127P     300 00237P
  C             00263P    339    730 00703P
  CALMSFMT E    00615P    668      5 00000P
  CLEARALL      00360P    420+5  184+3 00104P
  CLEARBIT      00363P    420+9  420+7 00361P   420+13 00367P
  CLEARMTW      00356P    420+1  378+1 00313P
* CLRMTWT    X            20
  CMQSET     X            21     318 00256P     699 00635P
  CORE          04000     74     658 00607P
  D10        X            23     424 00372P     587 00515P     611 00545P
  DIE           00453P    517    728 00677P
  DIEBIT     X            22     521 00456P
  DUMP8      X            23+1   738+2 00727P
  E             00424P    468    732 00707P
  END           00403P    448    474 00431P
  END02         00414P    458    452 00406P
  END04         00416P    461    455 00411P
  ENDREAD  E    00412P    456      6 00000P
  ERRCR         00207P    275    236 00144P     241+5 00156P    249 00165P     261 00172P     270 00203P     286 00221P
                                 345 00277P     374 00306P     398 00326P     404 00334P     414 00346P     471 00426P
                                 520 00455P     532 00462P     625 00553P
  FINK       X            24     457 00413P     652 00601P
  FLAGS      X            25     348 00273P     349 00274P
  FREEMEM    X            26     178 00073P     298 00235P
  G             00276P    358    718 00661P
  GETBUFF    X            27     642 00570P
  GETMEM     X            28     129 00020P     208 00114P     277 00210P     288 00223P
  GETPAGE    X            29     475 00432P
  GIVBUFFA   X            30     666 00614P
  I             00447P    505    489 00437P     733 00711P
  IDLE       X            31     420+6 00360P   461 00416P
  IMPURE        00000     67     139 00032P     141 00034P     163 00056P     164 00057P     182 00077P     218 00125P
                                 262 00173P     301 00240P     407 00337P     420+9 00363P    456 00412P     458 00414P
                                 624 00552P     648 00575P     653 00602P     655 00604P     664 00612P     700 00636P
                                 710 00657P     715 00660P     742 00730P     743 00731P
                                 715 00660P                    743 00731P
  INHIBIT    X            32     330 00261P     469 00424P     473 00430P     507 00450P     508 00451P     518 00453P
                                 530 00460P
  INWAIT        00077P    182    206 00112P     224 00132P
  IOCL       X            33     346 00271P
  IOCLBIT    X            34     347 00272P
  IOCLEAR    X            35     362 00301P     420+10 00364P
  IOSET      X            36     439 00401P
  IRUNPEND   X            37     470 00425P
  KILL       X            38     734+1 00715P
  L             00303P    371    736 00717P
  LENGTH        00003     721    247 00163P
  M             00314P    387    719 00662P
  M01           00337P    407    391 00317P     426 00374P
  M02           00371P    423    409 00341P
  MACHERR    X            48     654 00603P
  MAN00         00112P    206    183 00100P
  MAN01         00116P    210    233 00141P
  MAN02         00125P    218    209 00115P     219 00126P     229 00135P     295 00232P     626 00554P
  MAN03         00134P    227    204 00110P
  MAN04         00160P    243+1  241+1 00152P
  MAN05         00222P    287    237 00145P     316 00254P     319 00257P     350 00275P     363 00302P     420+3 00357P
                                 440 00402P     476 00433P     509 00452P     556 00472P     580 00511P     633 00563P
                                 690 00633P
  MAN06         00226P    291    283 00216P
  MANDELAY      00132P    224    205 00111P
  MANINT   E    00105P    201      7 00000P
  MANRET        00240P    301    228 00134P     629 00557P     632 00562P
  MESFLAG    X            39     555 00471P
  MESONOFF      00467P    552    723 00665P     724 00667P
  MOUNTRET E    00610P    661      8 00000P
  MSFLOAD  E    00575P    648      9 00000P
  NCONWAIT   X            40     184+1 00102P
  NMTWAIT    X            43+1   420+2 00356P
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NOENDBIT   X           41    472 00427P    519 00454P    531 00461P
NOPIBIT    X           42    329 00260P
NOPWAIT    X           43    361 00300P
NU            00035    75    420+8 00362P
OCTPACK  E   00243P  303+22  9+1 00000P
OPABORT    X           44    317 00255P
OPIBIT     X           45    506 00447P
OPMSG    E   00005P   117     10 00000P    607 00541P
OPMSG00      00007P   120    114 00003P
OPMSG02      00032P   139    111 00000P    118 00005P    142 00035P
OPMSG03      00034P   141    134 00025P
OPMSG04      00056P   163    125 00015P    145 00040P
OPMSG06      00041P   148    184 00101P    303 00242P
OPMSG08      00060P   166    161 00054P
OPMSG10      00053P   159    169 00062P
OPMSGRET     00057P   164    122 00012P    167 00060P   184+2 00103P   202 00106P   222 00131P   302 00241P
OPMSGX   E   00000P   110     11 00000P
OPTERM     X           46    375 00307P    477 00434P    487 00436P
OPWAIT     X           47    438 00400P
PACK         00173P   262    315 00253P    360 00277P    372 00304P    437 00377P
PACK01       00564P   635    640 00566P
PACK02       00566P   639    631 00561P    675 00623P
PACK03       00572P   644    637 00565P
PACKBLK      00604P   655    627 00555P    651 00600P    674 00622P
PACKEND      00167P   258    273 00206P
PACKEXIT     00602P   653    630 00560P    636 00564P    643 00571P    672 00620P
PACKFLAG     00552P   624    628 00556P    662 00610P    669 00615P    673 00621P
PACKPAGE     00612P   664    645 00572P    665 00613P
PACKREQ      00552P   623    734 00713P
PC         X           49    463 00420P
PF1        X           50    465 00422P
PFLOC        00001     73     74 00000P    657 00606P    663 00611P
PSA          00000     71    259 00170P    260 00171P   420+6 00360P  420+11 00365P  420+12 00366P   571 00500P
                             576 00505P    584 00512P    590 00520P    599 00531P    704 00642P    706 00644P
PSABLK     X           51    258 00167P    568 00475P    701 00637P
QMARKS       00217P   284    278 00211P    491 00440P
QMSET        00650P   710    376 00310P    650 00577P
READ       X           52    453 00407P
S            00375P   434    737 00721P    416 00351P
SCREAM   E   00730P   742     12 00000P
SETINHIB     00451P   508    331 00262P
SSINHIB      00450P   507    522 00457P    534 00464P
STRT       X           53   738+1 00725P
SUSBIT     X           55    533 00463P
SUSP         00460P   529    729 00701P
SYSCODE    X           54    706 00644P
T            00436P   486    738 00723P
T2           00437P   488    542 00466P
T3           00440P   490    478 00435P
TABLE        00661P   717    721 00664P    248 00164P    250 00166P
TAPELIST   X           56    402 00332P    413 00345P    420 00355P
TBLKLIST   X           57    418 00353P
TEMP1        00653P   714    423 00371P    425 00373P
TERM         00636P   700    378 00312P    494 00443P    703 00641P    709 00647P
TERMINAL   X           58    576 00505P    599 00531P
TERMX        00634P   698    705 00643P
TERMY        00635P   699    711 00651P
TIMSET     X           59    162 00055P
TNUMLIST   X         57+1   414+1 00347P
TPUNITS    X           60    396 00324P    399 00327P    411 00343P
TRMNUM     X           61    492 00441P
TWABLE       00664P   722    740 00730P    241 00151P   241+2 00153P    243 00157P
TYQBEGIN     00657P   715    716 00661P    149 00041P    154 00046P    173 00066P    175 00070P    176 00071P
                             177 00072P    179 00074P    282 00215P    289 00224P    292 00227P    715 00660P
TYQEND       00660P   716    130 00021P    131 00022P    137 00030P    181 00076P    294 00231P
U04          00514P   586    589 00517P
U05          00531P   599    615 00551P
U06          00542P   608    593 00523P
UBUFFER      00652P   713    714 00657P    588 00516P    595 00525P    597 00527P    603 00535P    606 00540P
                             612 00546P
USER02       00475P   568    579 00510P
USER04       00510P   579    566 00474P    570 00477P    573 00502P
USERLIST     00473P   564    720 00663P    565 00473P
USRMAX     X           62    272 00205P
USRNUM     X           63    590 00520P
VANISH     X           64    698 00634P
W            00465P   540    725 00671P
WARN       X           65    541 00465P
WLNTH        00044    740    240 00150P
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   X         00624P        683     730+1 00705P
   X1        00001          68     184+2 00103P      241+2 00153P       258 00167P       267 00200P       271 00204P       272 00205P
                                   303+24 00244P     303+27 00247P      373 00305P       399 00327P       420 00355P     420+3 00357P
                                   420+14 00370P       454 00410P       492 00441P       495 00444P       600 00532P       603 00535P
                                      604 00536P        649 00576P       701 00637P
   X2        00002          69      115 00004P         122 00012P       216 00123P       218 00125P       219 00126P       229 00135P
                                    230 00136P         238 00146P       246 00162P       313 00251P       340 00263P       359 00276P
                                    371 00303P         388 00314P       392 00320P     420+8 00362P     420+13 00367P      435 00375P
                                    449 00403P         453 00407P       461 00416P       463 00420P       465 00422P       476 00433P
                                    489 00437P         497 00446P       565 00473P       568 00475P       574 00503P       578 00507P
                                    579 00510P         627 00555P       628 00556P       636 00564P       650 00577P       655 00604P
                                    683 00624P
   X3        00003          70      163 00056P         167 00060P       174 00067P       202 00106P       207 00113P       209 00115P
                                    224 00132P         225 00133P       228 00134P       237 00145P       259 00170P       260 00171P
                                    296 00233P        303+28 00250P     395 00323P       396 00324P     414+1 00347P       417 00352P
                                   420+6 00360P       420+11 00365P    420+12 00366P     452 00406P       455 00411P       466 00423P
                                    474 00431P         571 00500P       576 00505P       584 00512P       590 00520P       599 00531P
                                    629 00557P         630 00560P       631 00561P       632 00562P       651 00600P       671 00617P
                                    672 00620P         673 00621P       704 00642P       706 00644P
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