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                        ,TITLE DC01-EB SYSTEM EXERCISER TEST
                        ,EBREL
                    /COPYRIGHT MAY 7, 1971
                    /REV, D, REVISED APRIL 21, 1972
                    /DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASS,, 01754
                    /PROGRAMMER:  EARL L, BOUSE
                          /
                          /
                    /THIS PROGRAM IS DESIGNED TO EXERCISE THE TRANSMITTER, RECEIVER AND
                    /TELEPRINTERS FOR THE 'DC01-EB' AND DC01-BB,  THE PROGRAM WILL EXERCISE
                    /FROM '1' TO '4' DC01-EB'S OR 'BB' SIMULTANEOUSLY IN CONFIGURATIONS OF
                    /'1' TO '32' TELETYPES,  THE TEST STARTS BY TYPING A 'REPEATING'
                    /CHARACTER SET SIMULTANEOUSLY ON ALL AVAILABLE TELETYPES AND THEN RUNS
                    /A "FLOATING TELETYPE" TEST, IN THIS TEST, ONE TELETYPE ON EACH DC01EB
                    /UNIT IS LEFT 'SILENT' WHILE ALL REMAINING TELETYPES CONTINUE TYPING OUT
                    /THE CHARACTER SET,  AFTER COMPLETING APPROXIMATELY TEN LINES OF CHARACTER
                    /SETS THE 'SILENT' TELETYPE IS RE-STARTED AND ANOTHER TELETYPE IS LEFT
                    /'SILENT', ANY CHARACTER MAY BE TYPED IN ON THE 'SILENT' TELETYPE AND
                    /IT WILL 'ECHO' BACK THE CHARACTER THUS TESTING THE 'KEYBOARD' SECTION
                    /OF THAT TELETYPE,  PROVISION IS MADE TO 'HOLD' ANY SELECTED TELETYPE
                    /IN AN 'ECHO' MADE INDEFINATELY,  THIS IS DONE VIA TYPING A 'CNTR A'
                    /ON ANY 'SILENT' TELETYPE, A '#' WILL BE ECHOED BACK TO INDICATE 'ECHO
                    /HOLD', FOLLOWED VIA A NUMBER OF '0 TO 7' TO INDICATE THE DESIRED TELE-
                    /TYPE TO BE SELECTED AND TERMINATED BY 'CARRIAGE RETURN', TYPING 'RUBOUT'
                    /WILL RUBOUT ANY PRECEEDING NUMBER AND TYPING A SECOND 'CNTR A' FOLLOWED BY
                    /A 'CARRIAGE RETURN' WILL TERMINATE THE 'ECHO HOLD' MODE,
                          /
  707764 A          EBA=707764
  707702 A          EEM=707702
                          /
  00000 R 604030 A  USERSW  604030                  /I/O DEVICE WITH MULTI-AP1 # 70
  00001 R 000031 A          31                      /UNIT #2 ADDRESS '72',
  00002 R 000032 A          32                      /UNIT #3 ADDRESS '74',
  00003 R 000033 A          33                      /UNIT #4 ADDRESS '73'
  00004 R 000144 R          ,DSA    SERVCE
  00005 R 000031 R          ,DSA    INIT
  00006 R 040317 A          ,SIXBT  'DC01EB'
  00007 R 610502 A
  00010 R 020000 A  DATASW  20000                   /DATA 'SW4' INHIBITS THE 'DC01-EB' TEST
  00011 R       A           ,BLOCK 7
  00020 R 000000 A  SYSERR  0                       /ERROR INDICATOR FOR THE MONITOR
  00021 R 000000 A          0                       /W,C, FOR DATA WORD ERROR CODES,
  00022 R 000000 A  ERCODE  0
  00023 R 000000 A          0
  00024 R 000000 A          0
  00025 R 000000 A          0
  00026 R 000000 A          0
  00027 R 000000 A          0
  00030 R 000000 A          0
                          ,EJECT
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                        /INITIALIZE THE DC01-EB! TEST
                        /
00031 R 000000 A    INIT    0
00032 R 707764 A            EBA
00033 R 707702 A            EEM
00034 R 200031 R            LAC     INIT
00035 R 040144 R            DAC     SERVCE
00036 R 140020 R            DZM     SYSERR          /CLEAR ERROR LOCATIONS
00037 R 140021 R            DZM     SYSERR+1
00040 R 140022 R            DZM     ERCODE
00041 R 142010 R            DZM     ECHO1
00042 R 142011 R            DZM     ECHO2
00043 R 142012 R            DZM     ECHO3
00044 R 142013 R            DZM     ECHO4
00045 R 777777 A            LAW     -1
00046 R 042014 R            DAC     SILTT1
00047 R 042015 R            DAC     SILTT2
00050 R 042016 R            DAC     SILTT3
00051 R 042017 R            DAC     SILTT4
00052 R 042020 R            DAC     SILSW1
00053 R 042021 R            DAC     SILSW2
00054 R 042022 R            DAC     SILSW3
00055 R 042023 R            DAC     SILSW4
00056 R 042030 R            DAC     LONE1
00057 R 042031 R            DAC     LONE2
00060 R 042032 R            DAC     LONE3
00061 R 042033 R            DAC     LONE4
00062 R 042037 R            DAC     KSTOR4
00063 R 042040 R            DAC     KSTOR5
00064 R 042041 R            DAC     KSTOR6
00065 R 042043 R            DAC     KSTOR8
00066 R 100450 R            JMS     DISFLG          /DISABLE SCANNER AND 'CLR' FLAGS UNIT #1
00067 R 202074 R            LAC     (ACTIV1
00070 R 042034 R            DAC     KSTOR1          /ADDRESS OF UNIT #1'S ACTIVE TELETYPES,
00071 R 042044 R            DAC     TEMP1
00072 R 202075 R            LAC     (ACTIV2
00073 R 042035 R            DAC     KSTOR2          /UNIT #2
00074 R 202076 R            LAC     (ACTIV3
00075 R 042036 R            DAC     KSTOR3          /UNIT #3
00076 R 202077 R            LAC     (ACTIV4
00077 R 042042 R            DAC     KSTOR7          /UNIT #4
00100 R 777734 A            LAW     -44
00101 R 042045 R            DAC     TEMP2
00102 R 777777 A            LAW     -1
00103 R 062044 R            DAC*    TEMP1           /CLEAR 'ACTIVE' TELETYPE BUFFER,
00104 R 442044 R            ISZ     TEMP1
00105 R 442045 R            ISZ     TEMP2
00106 R 600103 R            JMP     .-3
                        /
                        .EJECT
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00107 R 772000 A        LAW     -6000
00110 R 042061 R        DAC     LOOPA
00111 R 042062 R        DAC     LOOPB
00112 R 042063 R        DAC     LOOPC
00113 R 042064 R        DAC     LOOPD
00114 R 202100 R        LAC     (DSTSW0+1
00115 R 040151 R        DAC     DSTSW0
00116 R 202101 R        LAC     (REC1
00117 R 040514 R        DAC     DSTSW1
00120 R 202102 R        LAC     (REC2
00121 R 040567 R        DAC     DSTSW2
00122 R 202103 R        LAC     (REC3
00123 R 040642 R        DAC     DSTSW3
00124 R 202104 R        LAC     (REC4
00125 R 040715 R        DAC     DSTSW4
00126 R 202105 R        LAC     (600000
00127 R 042065 R        DAC     PASCNT
00130 R 142024 R        DZM     HLDTT1
00131 R 142025 R        DZM     HLDTT2
00132 R 142026 R        DZM     HLDTT3
00133 R 142027 R        DZM     HLDTT4
00134 R 776000 A        LAW     -2000
00135 R 042066 R        DAC     WAITCT          /WAIT COUNTER FOR 'FLAG SET' TIME
00136 R 101664 R        JMS     HOLDSW          /CHECK 'HOLD SWITCH'
00137 R 202106 R        LAC     (215            /=TO 'CARRIAGE RETURN',
00140 R 042046 R        DAC     TEMP3
00141 R 101326 R        JMS     TRNSMT          /INITIALIZE ALL TTY'S WITH 'CARRIAGE RETURN',
00142 R 101345 R        JMS     SETPRT          /SET UP 'ASCII' CHARACTER TABLES,
00143 R 620031 R        JMP*    INIT
                        /
                        .EJECT
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                        /SERVICE ROUTINE FOR THE "DC01-EB" TEST
                        /
00144 R 000000 A    SERVCE  0
00145 R 707704 A            EBA
00146 R 707702 A            EEM
00147 R 042070 R            DAC     SAVEAC          /SAVE CONTENTS OF 'AC',
00150 R 620151 R            JMP*    DSTSW0
00151 R 000000 A    DSTSW0  0
00152 R 202066 R            LAC     WAITCT
00153 R 740200 A            SZA                     /HAVE TELETYPES BEEN SET UP?
00154 R 600227 R            JMP     CHKFLG          /NO, CHECK ACTIVE TTY'S
00155 R 777777 A            LAW     -1
00156 R 042072 R            DAC     FLGDRV          /SET "NO-FLAG" INDICATOR,
00157 R 101664 R            JMS     HOLDSW          /CHECK FOR THE HOLD SWITCH,
00160 R 100303 R            JMS     CHKTRN          /CHECK TRANSMITTER AND RECEIVER FLAGS,
00161 R 442061 R            ISZ     LOOPA           /ECHO UNIT #1
00162 R 741000 A            SKP
00163 R 101002 R            JMS     FLOAT1          /YES, FLOAT NEXT TTY
00164 R 442062 R            ISZ     LOOPB           /ECHO UNIT #2
00165 R 741000 A            SKP
00166 R 101067 R            JMS     FLOAT2          /YES, FLOAT NEXT TTY,
00167 R 442063 R            ISZ     LOOPC           /ECHO UNIT #3
00170 R 741000 A            SKP
00171 R 101154 R            JMS     FLOAT3          /YES, FLOAT NEXT TTY,
00172 R 442064 R            ISZ     LOOPD           /ECHO UNIT #4?
00173 R 741000 A            SKP
00174 R 101241 R            JMS     FLOAT4          /YES, FLOAT NEXT TTY,
00175 R 202030 R            LAC     LONE1
00176 R 741200 A            SNA                     /IS ONLY '1' TELETYPE AVAILABLE?
00177 R 601732 R            JMP     EXITM5          /YES, EXIT "-5"
00200 R 202072 R            LAC     FLGDRV
00201 R 740200 A            SZA                     /WERE ANY FLAGS SET?
00202 R 601737 R            JMP     NOFLAG          /NO, EXIT
00203 R 202057 R            LAC     KSTOR4
00204 R 740100 A            SMA
00205 R 600222 R            JMP     EXIT
00206 R 202040 R            LAC     KSTOR5
00207 R 740100 A            SMA
00210 R 600222 R            JMP     EXIT
00211 R 202041 R            LAC     KSTOR6
00212 R 740100 A            SMA
00213 R 600222 R            JMP     EXIT
00214 R 202043 R            LAC     KSTOR8
00215 R 740100 A            SMA
00216 R 600222 R            JMP     EXIT
00217 R 442065 R            ISZ     PASCNT          /INCREMENT THE PASS COUNTER,
00220 R 741000 A            SKP
00221 R 601724 R            JMP     EXITM4          /ON OVERFLOW, TYPE 'DONE',
00222 R 705512 A    EXIT    RPL
00223 R 751100 A            SPA!CLA                 /IS 'API' ON?
00224 R 202070 R            LAC     SAVEAC          /YES, RESTORE 'AC'
00225 R 703344 A            DBR                     /NO, EXIT
00226 R 620144 R            JMP*    SERVCE
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                        .EJECT
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                        /DETERMINE THE NØ, OF AVAILABLE TTY'S AND SET UP
                        /A "ACTIVE" TTY BUFFER FOR EACH UNIT.
                        /
00227 R 401610 R  CHKFLG  XCT     SSF1          /IS UNIT #1 SCANNER FLAG SET?
00230 R 600240 R          JMP     CKFLG2        /NO, CHECK UNIT #2
00231 R 401614 R          XCT     RSD1          /READ SCANNER DATA AND CLEAR FLAG,
00232 R 502107 R          AND     (7ØØØ         /MASK SCANNER LINE NØ,
00233 R 101644 R          JMS     ROT9R
00234 R 062034 R          DAC*    KSTOR1        /SAVE SCANNER ADDRESS
00235 R 442034 R          ISZ     KSTOR1
00236 R 401634 R          XCT     STS1          /CLEAR SCANNER FLAG& RESTART THE SCANNER,
00237 R 600227 R          JMP     CHKFLG        /RECHECK SCANNER FLAG
00240 R 401611 R  CKFLG2  XCT     SSF2          /SCANNER #2 FLAG SET?
00241 R 600251 R          JMP     CKFLG3        /NO, CHECK UNIT #3
00242 R 401615 R          XCT     RSD2          /READ SCANNER DATA AND CLEAR FLAG
00243 R 502107 R          AND     (7ØØØ
00244 R 101644 R          JMS     ROT9R
00245 R 062035 R          DAC*    KSTOR2        /SAVE SCANNER ADDRESS
00246 R 442035 R          ISZ     KSTOR2
00247 R 401635 R          XCT     STS2          /CLEAR SCANNER FLAG & RESTART SCANNER,
00250 R 600240 R          JMP     CKFLG2        /RECHECK SCANNER FLAG
00251 R 401612 R  CKFLG3  XCT     SSF3          /IS UNIT #3 SCANNER FLAG SET?
00252 R 600262 R          JMP     CKFLG4        /CHECK UNIT #4,
00253 R 401616 R          XCT     RSD3          /READ SCANNER DATA AND CLEAR FLAG
00254 R 502107 R          AND     (7ØØØ         /MASK SCANNER LINE NØ,
00255 R 101644 R          JMS     ROT9R
00256 R 062036 R          DAC*    KSTOR3        /SAVE SCANNER ADDRESS
00257 R 442036 R          ISZ     KSTOR3
00260 R 401636 R          XCT     STS3          /CLEAR SCANNER FLAG& RESTART THE SCANNER,
00261 R 600251 R          JMP     CKFLG3        /RECHECK FLAG
00262 R 401613 R  CKFLG4  XCT     SSF4          /IS UNIT #4 SCANNER FLAG SET?
00263 R 600273 R          JMP     EXTCKF        /NO, EXIT
00264 R 401617 R          XCT     RSD4          /READ SCANNER DATA AND CHAR FLAG,
00265 R 502107 R          AND     (7ØØØ
00266 R 101644 R          JMS     ROT9R
00267 R 062042 R          DAC*    KSTOR7        /SAVE SCANNER ADDRESS,
00270 R 442042 R          ISZ     KSTOR7
00271 R 401637 R          XCT     STS4          /RESTART THE SCANNER,
00272 R 600262 R          JMP     CKFLG4
00273 R 442066 R  EXTCKF  ISZ     WAITCT        /ALL FLAGS HAD TIME TO SET?
00274 R 601732 R          JMP     EXITM5        /NO, EXIT "-5",
00275 R 142072 R          DZM     FLGDRV        /CLEAR "NO-FLAG" INDICATOR
00276 R 202110 R          LAC     (212          /=TO LINE FEED
00277 R 042046 R          DAC     TEMP3
00300 R 101664 R          JMS     HOLDSW        /CHECK FOR HOLD SWITCH,
00301 R 101326 R          JMS     TRNSMT        /START TEST
00302 R 600222 R          JMP     EXIT
                          /
                          ,EJECT
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                        /CHECK UNIT #1,2,3 AND 4 FOR ANY TRANSMITTER FLAGS FOR BEING SET
                        /
00303 R 000000 A    CHKTRN  0
00304 R 202024 R            LAC     HLDTT1
00305 R 740200 A            SZA                     /WAS THE HOLD SWITCH SET?
00306 R 600312 R            JMP     .+4             /YES, PROCESS DATA,
00307 R 401610 R            XCT     SSF1            /IS UNIT #1 SCANNER FLAG SET?
00310 R 600326 R            JMP     CHKTR2          /NO, CHECK UNIT #2,
00311 R 401614 R            XCT     RSD1            /READ SCANNER DATA,
00312 R 142072 R            DZM     FLGDRV          /YES, CLEAR "NO-FLAG" INDICATOR,
00313 R 142024 R            DZM     HLDTT1          /CLEAR THE 'HOLD SET' INDICATOR,
00314 R 042044 R            DAC     TEMP1           /SAVE DATA
00315 R 502107 R            AND     (7000
00316 R 101644 R            JMS     ROT9R           /ROTATE RIGHT '9',
00317 R 542014 R            SAD     SILTT1          /=TO SILENT TTY?
00320 R 600456 R            JMP     CKREC1          /YES, CHECK RECEIVER DATA
00321 R 342111 R            TAD     (TABLE1         /CALCULATE PRINT BUFFER ADDRESS
00322 R 100414 R            JMS     PRTCHR          /SETUP THE NEXT CHARACTER
00323 R 100000 A            100000                  /=TO UNIT #1
00324 R 401640 R            XCT     SLS1            /TRANSMIT NEXT CHARACTER
00325 R 600304 R            JMP     CHKTRN+1        /CHECK NEXT FLAG
                        /
                        /CHECK UNIT #2 TRANSMITTER FLAGS
                        /
00326 R 202025 R    CHKTR2  LAC     HLDTT2
00327 R 740200 A            SZA
00330 R 600334 R            JMP     .+4
00331 R 401611 R            XCT     SSF2            /IS UNIT #2 SCANNER FLAG SET?
00332 R 600350 R            JMP     CHKTR3          /NO, CHECK UNIT #3
00333 R 401615 R            XCT     RSD2            /READ SCANNER DATA
00334 R 142072 R            DZM     FLGDRV          /YES, CLEAR "NO-FLAG" INDICATOR,
00335 R 142025 R            DZM     HLDTT2
00336 R 042044 R            DAC     TEMP1           /SAVE DATA
00337 R 502107 R            AND     (7000
00340 R 101644 R            JMS     ROT9R           /ROTATE RIGHT '9',
00341 R 542015 R            SAD     SILTT2          /=TO SILENT TTY?
00342 R 600531 R            JMP     CKREC2          /YES, CHECK RECEIVER DATA
00343 R 342112 R            TAD     (TABLE2         /CALCULATE PRINT BUFFER ADDRESS
00344 R 100414 R            JMS     PRTCHR          /SETUP THE NEXT CHATACTER
00345 R 200000 A            200000                  /=TO UNIT #2
00346 R 401641 R            XCT     SLS2            /TRANSMIT NEXT CHARACTER
00347 R 600326 R            JMP     CHKTR2          /CHECK NEXT FLAG,
                        /
                        ,EJECT
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                        /CHECK UNIT #3 TRANSMITTER FLAGS
                        /
00350 R 202026 R    CHKTR3  LAC     HLDTT3
00351 R 740200 A            SZA
00352 R 600356 R            JMP     .+4
00353 R 401612 R            XCT     SSF3            /IS UNIT #3 SCANNER FLAG SET?
00354 R 600372 R            JMP     CHKTR4          /NO, CHECK UNIT #4,
00355 R 401616 R            XCT     RSD3            /READ SCANNER DATA
00356 R 142072 R            DZM     FLGDRV          /CLEAR "NO-FLAG" INDICATOR,
00357 R 142026 R            DZM     HLDTT3
00360 R 042044 R            DAC     TEMP1           /SAVE DATA
00361 R 502107 R            AND     (7000
00362 R 101644 R            JMS     ROT9R
00363 R 542016 R            SAD     SILTT3          /=TO SILENT TTY?
00364 R 600604 R            JMP     CKREC3          /YES, CHECK RECEIVER DATA
00365 R 342113 R            TAD     (TABLE3         /CALCULATE THE PRINT BUFFER ADDRESS
00366 R 100414 R            JMS     PRTCHR          /SETUP THE NEXT CHARACTER
00367 R 300000 A            300000                  /=TO UNIT #3
00370 R 401642 R            XCT     SLS3            /TRANSMIT NEXT CHARACTER
00371 R 600350 R            JMP     CHKTR3          /CHECK NEXT FLAG
                        /CHECK UNIT #4 TRANSMITTER FLAGS.
                        /
00372 R 202027 R    CHKTR4  LAC     HLDTT4
00373 R 740200 A            SZA
00374 R 600400 R            JMP     .+4
00375 R 401613 R            XCT     SSF4            /IS UNIT #4 SCANNER FLAG SET?
00376 R 620303 R            JMP*    CHKTRN          /NO, EXIT
00377 R 401617 R            XCT     RSD4            /READ SCANNER DATA
00400 R 142072 R            DZM     FLGDRV
00401 R 142027 R            DZM     HLDTT4
00402 R 042044 R            DAC     TEMP1           /SAVE DATA,
00403 R 502107 R            AND     (7000
00404 R 101644 R            JMS     ROT9R
00405 R 542017 R            SAD     SILTT4          /=TO SILENT TTY?
00406 R 600657 R            JMP     CKREC4          /YES, CHECK RECEIVER DATA
00407 R 342114 R            TAD     (TABLE4         /CALCULATE THE PRINT BUFFER ADDRESS
00410 R 100414 R            JMS     PRTCHR          /SETUP THE NEXT CHARACTER
00411 R 400000 A            400000                  /=TO UNIT #4
00412 R 401643 R            XCT     SLS4            /TRANSMIT NEXT CHARACTER
00413 R 600372 R            JMP     CHKTR4          /CHECK NEXT FLAG,
                        /
                        .EJECT
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                        /SUBROUTINE TO COMPARE TRANSMITTED DATA AND SETUP TO TRANSMIT THE NEXT
                        /CHARACTER,  ENTERED WITH PRINT 'BUFFER ADDR' IN 'AC', AND EXIT WITH THE
                        /NEXT CHATACTER TO BE TRANSMITTED IN 'AC',
                        /
00414 R 000000 A    PRTCHR  0
00415 R 042045 R            DAC     TEMP2           /STORE SELECTED TTY'S PRINT BUFFER
00416 R 220414 R            LAC*    PRTCHR
00417 R 042073 R            DAC     UNIT            /STORE FAILING UNIT NØ,
00420 R 440414 R            ISZ     PRTCHR
00421 R 222045 R            LAC*    TEMP2
00422 R 042046 R            DAC     TEMP3           /=TO PRINT TABLE ADDRESS POINTER
00423 R 202044 R            LAC     TEMP1           /SCANNER DATA
00424 R 502115 R            AND     (377            /MASK 'CHARACTER' BITS,
00425 R 741200 A            SNA                     /=TO 'Ø' FROM RESTARTED TTY?
00426 R 600432 R            JMP     .+4             /YES, DON'T COMPARE DATA,
00427 R 562046 R            SAD*    TEMP3           /SAME AS TRANSMITTED DATA?
00430 R 741000 A            SKP                     /YES, CONTINUE
00431 R 101744 R            JMS     ERROR1          /NO, DATA TRANSMIT ERROR
00432 R 462045 R            ISZ*    TEMP2           /INCREMENT TABLE POINTER
00433 R 222045 R    PRCHR1  LAC*    TEMP2
00434 R 042046 R            DAC     TEMP3
00435 R 222046 R            LAC*    TEMP3           /=TO NEXT CHARACTER TO BE TRANSMITTED
00436 R 741200 A            SNA                     /END OF TABLE?
00437 R 600445 R            JMP     RESETP          /YES, RESET TABLE POINTER
00440 R 202044 R            LAC     TEMP1           /ORIGINAL SCANNER DATA
00441 R 502107 R            AND     (7000           /MASK SCANNER ADDRESS
00442 R 362046 R            TAD*    TEMP3           /ADD 'NEW' CHARACTER
00443 R 342116 R            TAD     (400            /=TO CLEAR THE 'TR' FLAG,
00444 R 620414 R            JMP*    PRTCHR
                        /
                        /RESET PRINT TABLE POINTER
                        /
00445 R 202117 R    RESETP  LAC     (PRTTAB
00446 R 062045 R            DAC*    TEMP2           /RELOAD PRINT TABLE
00447 R 600433 R            JMP     PRCHR1
                        /
                        /DISABLE SCANNER AND CLEAR ALL FLAGS,
                        /
00450 R 000000 A    DISFLG  0
00451 R 401620 R            XCT     DIS1            /UNIT #1
00452 R 401621 R            XCT     DIS2            /UNIT #2
00453 R 401622 R            XCT     DIS3            /UNIT #3
00454 R 401623 R            XCT     DIS4            /UNIT #4
00455 R 620450 R            JMP*    DISFLG
                            .EJECT
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                        /CHECK THE RECEIVER DATA FROM UNIT #1'S SILENT TELETYPE AND ENABLE THE
                        /"ECHO HOLD" MODE IF "CNTR A" IS TYPED.
                        /
00456 R 202020 R    CKREC1  LAC     SILSW1
00457 R 740200 A            SZA                     /HAS SILENT TTY BEEN SET UP?
00460 R 600526 R            JMP     CLRFG1          /NO, CLEAR TTY FLAG,
00461 R 202101 R            LAC     (REC1
00462 R 042060 R            DAC     TYPDATA         /=TO THE ADDRESS TO 'ECHO' UNIT #1,
00463 R 202120 R            LAC     (CLRFG1
00464 R 042057 R            DAC     CKREC           /=TO THE ADDRESS TO 'UNIT' REC, ROUTINE
00465 R 202121 R            LAC     (KSTOR4
00466 R 042050 R            DAC     TEMP5           /ADDRESS TO STORE SELECTED SCANNER ADDR,
00467 R 202074 R            LAC     (ACTIV1
00470 R 042051 R            DAC     TEMP6
00471 R 202122 R            LAC     (ECHO1
00472 R 042052 R            DAC     TEMP7
00473 R 202123 R            LAC     (LOOPA
00474 R 042056 R            DAC     TEMP11
00475 R 202044 R            LAC     TEMP1           /RESTORE SCANNER DATA
00476 R 502115 R            AND     (377            /MASK CHARACTER 'BITS',
00477 R 542124 R            SAD     (201            /WAS "CNTR A" TYPED?
00500 R 741000 A            SKP
00501 R 620514 R            JMP*    DSTSW1          /NO, CONTINUE
00502 R 202010 R            LAC     ECHO1
00503 R 740200 A            SZA                     /IS "ECHO HOLD" ACTIVE?
00504 R 620514 R            JMP*    DSTSW1          /YES, IGNORE ALL "CNTR A'S"
00505 R 777777 A            LAW     -1
00506 R 042010 R            DAC     ECHO1           /NO, ENABLE "ECHO HOLD",
00507 R 042037 R            DAC     KSTOR4
00510 R 202125 R            LAC     (DECODE
00511 R 040514 R            DAC     DSTSW1          /SET UP TO DECODE SELECTED TTY,
00512 R 202126 R            LAC     (243            /TYPE '#' TO INDICATE 'ECHO HOLD' MODE
00513 R 600515 R            JMP     REC1
00514 R 000000 A    DSTSW1  0
                        /
00515 R 042047 R    REC1    DAC     TEMP4           /SAVE CHARACTER TO BE TRANSMITTED
00516 R 202044 R            LAC     TEMP1
00517 R 502107 R            AND     (7000           /MASK SCANNER ADDRESS
00520 R 342047 R            TAD     TEMP4           /ADD CHARACTER
00521 R 342116 R            TAD     (400            /=TO CLEAR THE 'TR' FLAG,
00522 R 401640 R            XCT     SLS1            /TRANSMIT
00523 R 77777 A             LAW     -1
00524 R 042020 R            DAC     SILSW1
00525 R 600304 R            JMP     CHKTRN+1        /EXIT
                        /
00526 R 142020 R    CLRFG1  DZM     SILSW1
00527 R 401634 R            XCT     STS1            /CLEAR SILENT TTY FLAG,
00530 R 600304 R            JMP     CHKTRN+1
                        ,EJECT
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                        /CHECK THE RECEIVER DATA FROM UNIT "2'S SILENT TELETYPE AND
                        /ENABLE THE "ECHO HOLD" MODE IF "CNTR A" IS TYPED,
                        /
00531 R 202021 R    CKREC2  LAC     SILSW2
00532 R 740200 A            SZA
00533 R 600601 R            JMP     CLRFG2
00534 R 202102 R            LAC     (REC2
00535 R 042060 R            DAC     TYPDATA
00536 R 202127 R            LAC     (CLRFG2
00537 R 042057 R            DAC     CKREC
00540 R 202130 R            LAC     (KSTOR5
00541 R 042050 R            DAC     TEMP5           /ADDRESS TO STORE SELECTED SCANNER ADDR,
00542 R 202075 R            LAC     (ACTIV2
00543 R 042051 R            DAC     TEMP6
00544 R 202131 R            LAC     (ECHO2
00545 R 042052 R            DAC     TEMP7
00546 R 202132 R            LAC     (LOOPB
00547 R 042056 R            DAC     TEMP11
00550 R 202044 R            LAC     TEMP1           /RESTORE SCANNER DATA
00551 R 502115 R            AND     (377            /MASK CHARACTER
00552 R 542124 R            SAD     (201            /WAS 'CNTR A' TYPED?
00553 R 741000 A            SKP
00554 R 620567 R            JMP*    DSTSW2          /NO, CONTINUE
00555 R 202011 R            LAC     ECHO2
00556 R 740200 A            SZA                     /IS "ECHO HOLD" ACTIVE?
00557 R 620567 R            JMP*    DSTSW2          /YES, IGNORE ALL "CNTR A'S",
00560 R 777777 A            LAW     -1
00561 R 042011 R            DAC     ECHO2           /NO, ENABLE "ECHO HOLD"
00562 R 042040 R            DAC     KSTOR5
00563 R 202125 R            LAC     (DECODE
00564 R 040567 R            DAC     DSTSW2          /SET UP TO DECODE SELECTED TTY,
00565 R 202126 R            LAC     (243            /TYPE '#' TO INDICATE 'ECHO HOLD' MODE
00566 R 600570 R            JMP     REC2
00567 R 000000 A    DSTSW2  0
                        /
00570 R 042047 R    REC2    DAC     TEMP4           /SAVE CHARACTER TO BE TRANSMITTED
00571 R 202044 R            LAC     TEMP1
00572 R 502107 R            AND     (7000           /MASK SCANNER ADDRESS
00573 R 342047 R            TAD     TEMP4           /ADD CHARACTER
00574 R 342116 R            TAD     (400            /=T CLEAR THE 'TR' FLAG,
00575 R 401641 R            XCT     SLS2            /TRANSMIT
00576 R 777777 A            LAW     -1
00577 R 042021 R            DAC     SILSW2
00600 R 600326 R            JMP     CHKTR2          /EXIT
                        /
00601 R 142021 R    CLRFG2  DZM     SILSW2
00602 R 401635 R            XCT     STS2
00603 R 600326 R            JMP     CHKTR2
                        ,EJECT
```

```
                        /CHECK THE RECEIVER DATA FROM UNIT #3'S SILENT TELETYPE
                        /AND ENABLE THE "ECHO HOLD" MODE IF "CNTR A" IS TYPED,
                        /
00604 R 202022 R    CKREC3  LAC     SILSW3
00605 R 740200 A            SZA
00606 R 600654 R            JMP     CLRFG3
00607 R 202103 R            LAC     (REC3
00610 R 042060 R            DAC     TYPDATA         /=TO THE ADDRESS TO "ECHO" UNIT #3,
00611 R 202133 R            LAC     (CLRFG3
00612 R 042057 R            DAC     CKREC
00613 R 202134 R            LAC     (KSTOR6
00614 R 042050 R            DAC     TEMP5
00615 R 202076 R            LAC     (ACTIV3
00616 R 042051 R            DAC     TEMP6
00617 R 202135 R            LAC     (ECHO3
00620 R 042052 R            DAC     TEMP7
00621 R 202136 R            LAC     (LOOPC
00622 R 042056 R            DAC     TEMP11
00623 R 202044 R            LAC     TEMP1
00624 R 502115 R            AND     (377            /MASK CHARACTER BITS
00625 R 542124 R            SAD     (201            /WAS "CNTR A" TYPED?
00626 R 741000 A            SKP
00627 R 620642 R            JMP*    DSTSW3          /NO, CONTINUE
00630 R 202012 R            LAC     ECHO3           /YES
00631 R 740200 A            SZA                     /IS "ECHO HOLD" ACTIVE?
00632 R 620642 R            JMP*    DSTSW3          /YES, IGNORE ALL "CNTR A'S",
00633 R 777777 A            LAW     -1
00634 R 042012 R            DAC     ECHO3           /NO, ENABLE "ECHO HOLD"
00635 R 042041 R            DAC     KSTOR6
00636 R 202125 R            LAC     (DECODE
00637 R 040642 R            DAC     DSTSW3
00640 R 202126 R            LAC     (243
00641 R 600643 R            JMP     REC3
00642 R 000000 A    DSTSW3  0
                        /
00643 R 042047 R    REC3    DAC     TEMP4           /SAVE CHARACTER TO BE TRANSMITTED
00644 R 202044 R            LAC     TEMP1
00645 R 502107 R            AND     (7000           /MASK SCANNER ADDRESS
00646 R 342047 R            TAD     TEMP4
00647 R 342116 R            TAD     (400
00650 R 401642 R            XCT     SLS3            /TRANSMIT
00651 R 777777 A            LAW     -1
00652 R 042022 R            DAC     SILSW3
00653 R 600350 R            JMP     CHKTR3          /EXIT
                        /
00654 R 142022 R    CLRFG3  DZM     SILSW3
00655 R 401636 R            XCT     STS3
00656 R 600350 R            JMP     CHKTR3
                        ,EJECT
```

```
                        /CHECK THE RECEIVER DATA FROM UNIT #4'S SILENT TELETYPE,
                        /AND ENABLE THE "ECHO HOLD" MODE IF "CNTR A2 IS TYPED,
                        /
00657 R 202023 R    CKREC4  LAC     SILSW4
00660 R 740200 A            SZA
00661 R 600727 R            JMP     CLRFG4
00662 R 202104 R            LAC     (REC4
00663 R 042060 R            DAC     TYPDATA         /=TO THE ADDRESS TO "ECHO" UNIT #4,
00664 R 202137 R            LAC     (CLRFG4
00665 R 042057 R            DAC     CKREC
00666 R 202140 R            LAC     (KSTOR8
00667 R 042050 R            DAC     TEMP5
00670 R 202077 R            LAC     (ACTIV4
00671 R 042051 R            DAC     TEMP6
00672 R 202141 R            LAC     (ECHO4
00673 R 042052 R            DAC     TEMP7
00674 R 202142 R            LAC     (LOOPD
00675 R 042056 R            DAC     TEMP11
00676 R 202044 R            LAC     TEMP1
00677 R 502115 R            AND     (377            /MASK CHARACTER BITS,
00700 R 542124 R            SAD     (201            /WAS "CNTR A" TYPED?
00701 R 741000 A            SKP
00702 R 620715 R            JMP*    DSTSW4          /NO, CONTINUE
00703 R 202013 R            LAC     ECHO4           /YES
00704 R 740200 A            SZA                     /IS "ECHO HOLD" ACTIVE?
00705 R 620715 R            JMP*    DSTSW4          /YES, IGNORE ALL "CNTR A'S",
00706 R 777777 A            LAW     -1
00707 R 042013 R            DAC     ECHO4           /NO, ENABLE "ECHO HOLD",
00710 R 042043 R            DAC     KSTOR8
00711 R 202125 R            LAC     (DECODE
00712 R 040715 R            DAC     DSTSW4
00713 R 202126 R            LAC     (243
00714 R 600716 R            JMP     REC4
00715 R 000000 A    DSTSW4  0
                        /
00716 R 042047 R    REC4    DAC     TEMP4           /SAVE CHARACTER TO BE TRANSMITTED,
00717 R 202044 R            LAC     TEMP1
00720 R 502107 R            AND     (7000           /MASK SCANNER ADDRESS
00721 R 342047 R            TAD     TEMP4
00722 R 342116 R            TAD     (400
00723 R 401643 R            XCT     SLS4            /TRANSMIT
00724 R 777777 A            LAW     -1
00725 R 042023 R            DAC     SILSW4
00726 R 600372 R            JMP     CHKTR4          /EXIT
                        /
00727 R 142023 R    CLRFG4  DZM     SILSW4
00730 R 401637 R            XCT     STS4
00731 R 600372 R            JMP     CHKTR4
                        ,EJECT
```

```
                        /DECODE THE SELECTED TELETYPE OF ALL UNITS
                        /
00732 R 542106 R  DECODE  SAD     (215          /WAS 'CR' TYPED TO TERMINATE?
00733 R 600764 R          JMP     DECODA        /YES, CHECK SELECTED TELETYPE?
00734 R 542115 R          SAD     (377          /WAS RUBOUT TYPED?
00735 R 600760 R          JMP     RUBOUT        /YES, DELETE LAST CHARACTER,
00736 R 042054 R          DAC     TEMP9         /SAVE CHARACTER
00737 R 502143 R          AND     (7
00740 R 042053 R          DAC     TEMP8
00741 R 202144 R          LAC     (NØTABL-1     /ADDRESS OF CHARACTER TABLE
00742 R 042055 R          DAC     TEMP10
00743 R 442055 R          ISZ     TEMP10
00744 R 222055 R          LAC*    TEMP10
00745 R 542054 R          SAD     TEMP9         /=TO SELECTED NØ,
00746 R 600754 R          JMP     CMPUTE        /YES
00747 R 542145 R          SAD     (267          /END OF TABLE?
00750 R 741000 A          SKP                   /YES, ILLEGAL CHARACTER
00751 R 600743 R          JMP     .-6
00752 R 202146 R  TYPEQM  LAC     (277          /TYPE '?'
00753 R 622060 R          JMP*    TYPDATA
                        /
00754 R 202053 R  CMPUTE  LAC     TEMP8
00755 R 062050 R          DAC*    TEMP5         /STORE NØ,
00756 R 202054 R          LAC     TEMP9
00757 R 622060 R          JMP*    TYPDATA       /ECHO BACK THE 'NØ,'
                        /
00760 R 777777 A  RUBOUT  LAW     -1
00761 R 062050 R          DAC*    TEMP5
00762 R 202147 R          LAC     (257          /TYPE A '/' TO INDICATE RUBOUT,
00763 R 622060 R          JMP*    TYPDATA
                        /
                        /ON TERMINATING CHECK THE SELECTED TELETYPE FOR BEING AVAILABLE
                        /
00764 R 222050 R  DECODA  LAC*    TEMP5
00765 R 542150 R          SAD     (-1           /WAS A CHANNEL SELECTED?
00766 R 600776 R          JMP     TAGA          /NO, CLEAR "ECHO HOLD" ACTIVE
00767 R 222051 R          LAC*    TEMP6         /=TO UNITS "ACTIVE" BUFFER
00770 R 562050 R          SAD*    TEMP5         /=TO SELECTED TELETYPE?
00771 R 600776 R          JMP     TAGA          /YES, EXIT
00772 R 542150 R          SAD     (-1           /END OF "ACTIVE" TABLE?
00773 R 600752 R          JMP     TYPEQM        /YES, ILLEGAL TTY SELECTED, TYPE '?'
00774 R 442051 R          ISZ     TEMP6
00775 R 600767 R          JMP     .-6
00776 R 162052 R  TAGA    DZM*    TEMP7         /CLEAR "ECHO"
00777 R 777777 A          LAW     -1
01000 R 062056 R          DAC*    TEMP11        /SET 'LOOP' COUNTER TO EXIT NEXT PASS
01001 R 622057 R          JMP*    CKREC
                        /
                        .EJECT
```

```
                        /ROUTINE TO FLOAT '1' TELETYPE ON UNIT #1 WHILE TYPING ON ALL OTHERS
                        /
01002 R 000000 A    FLOAT1  0
01003 R 766000 A            LAW     -12000
01004 R 042061 R            DAC     LOOPA           /REINITIALIZE LOOP COUNTER
01005 R 042020 R            DAC     SILSW1          /SET 'SILENT' SWITCH,
01006 R 201473 R            LAC     ACTIV1
01007 R 542150 R            SAD     (-1             /IS THIS UNIT 'ACTIVE'?
01010 R 621002 R            JMP*    FLOAT1          /NO, NO TTY'S
01011 R 202101 R            LAC     (REC1
01012 R 040514 R            DAC     DSTSW1          /REINITIALIZE THE 'RECEIVER' TEST
01013 R 202014 R            LAC     SILTT1
01014 R 101654 R            JMS     ROT9L
01015 R 042045 R            DAC     TEMP2           /SET UP THE 'CURRENT' SILENT TTY
01016 R 202037 R            LAC     KSTOR4
01017 R 542150 R            SAD     (-1             /IS "ECHO HOLD" SELECTED?
01020 R 741000 A            SKP
01021 R 601060 R            JMP     SELCT1          /YES, ECHO SELECTED TELETYPE,
01022 R 222034 R            LAC*    KSTOR1
01023 R 542150 R            SAD     (-1             /END OF "ACTIVE" TABLE?
01024 R 101036 R            JMS     SETAV1          /YES, RESET "ACTIVE" TABLE
01025 R 222034 R            LAC*    KSTOR1          /GET NEXT TTY TO BE ECHOED
01026 R 042014 R            DAC     SILTT1
01027 R 442034 R            ISZ     KSTOR1
01030 R 202045 R    FLT1A   LAC     TEMP2
01031 R 542151 R            SAD     (777000         /IS ANY TTY NOW SILENT?
01032 R 601035 R            JMP     .+3             /NO, EXIT,
01033 R 342116 R            TAD     (400            /=TO CLEAR THE 'TR' FLAG,
01034 R 401640 R            XCT     SLS1            /RESTART SILENT TTY
01035 R 621002 R            JMP*    FLOAT1
                        .EJECT
```

```
01036 R 000000 A    SETAV1  0
01037 R 202074 R            LAC     (ACTIV1
01040 R 042034 R            DAC     KSTOR1
01041 R 201474 R            LAC     ACTIV1+1
01042 R 542150 R            SAD     (-1             /IS ONLY '1' TELETYPE AVAILABLE?
01043 R 741000 A            SKP
01044 R 621036 R            JMP*    SETAV1          /NO, EXIT
01045 R 202050 R            LAC     LONE1           /YES
01046 R 740001 A            CMA
01047 R 042050 R            DAC     LONE1
01050 R 751200 A            SNA!CLA                 /FLOAT TTY?
01051 R 202151 R            LAC     (777000         /YES, FLOAT TTY
01052 R 042045 R            DAC     TEMP2           /NO, RESTART TTY
01053 R 740200 A            SZA
01054 R 621036 R            JMP*    SETAV1
01055 R 777777 A            LAW     -1
01056 R 042014 R            DAC     SILTT1
01057 R 621036 R            JMP*    SETAV1
01060 R 142061 R    SELCT1  DZM     LOOPA
01061 R 202037 R            LAC     KSTOR4          /=TO SELECTED TELETYPE
01062 R 042014 R            DAC     SILTT1
01063 R 101654 R            JMS     ROT9L
01064 R 542045 R            SAD     TEMP2           /IS SELECTED TTY ALREADY SILENT?
01065 R 621002 R            JMP*    FLOAT1          /YES, IGNORE AND EXIT.
01066 R 601050 R            JMP     FLT1A
                            ,EJECT
```

```
                        /ROUTINE TO FLOAT '1' TELETYPE ON UNIT #2 WHILE TYPEING ON ALL OTHERS,
                                /
01067 R 000000 A    FLOAT2  0
01070 R 774000 A            LAW     -4000
01071 R 042062 R            DAC     LOOPB           /REINITIALIZE LOOP COUNTER
01072 R 042021 R            DAC     SILSW2          /SET 'SILENT' SWITCH,
01073 R 201504 R            LAC     ACTIV2
01074 R 542150 R            SAD     (-1             /IS THIS UNIT 'ACTIVE'?
01075 R 621067 R            JMP*    FLOAT2          /NO, NO TTY'S
01076 R 202102 R            LAC     (REC2
01077 R 040567 R            DAC     DSTSW2
01100 R 202015 R            LAC     SILTT2          /=TO N0, OF SILENT TTY,
01101 R 101654 R            JMS     ROT9L
01102 R 042045 R            DAC     TEMP2           /SET UP TO RESTART TTY,
01103 R 202040 R            LAC     KSTOR5
01104 R 542150 R            SAD     (-1             /IS "ECHO HOLD" MODE SELECTED?
01105 R 741000 A            SKP
01106 R 601145 R            JMP     SELCT2          /YES, ECHO SELECTED TELETYPE,
01107 R 222035 R            LAC*    KSTOR2
01110 R 542150 R            SAD     (-1             /END OF "ACTIVE" TABLE?
01111 R 101123 R            JMS     SETAV2          /YES, RESET 'ACTIVE' TABLE
01112 R 222035 R            LAC*    KSTOR2          /GET NEXT TTY TO BE SELECTED,
01113 R 042015 R            DAC     SILTT2
01114 R 442035 R            ISZ     KSTOR2
01115 R 202045 R    FLT2A   LAC     TEMP2
01116 R 542151 R            SAD     (777000         /IS A TTY NOW SILENT?
01117 R 601122 R            JMP     .+3             /NO, EXIT
01120 R 342116 R            TAD     (400            /=TO CLEAR THE 'TR' FLAG,
01121 R 401641 R            XCT     SLS2            /YES, RESTART SILENT TTY,
01122 R 621067 R            JMP*    FLOAT2
                            .EJECT
```

```
01123 R 000000 A    SETAV2  0
01124 R 202075 R            LAC     (ACTIV2
01125 R 042035 R            DAC     KSTOR2
01126 R 201505 R            LAC     ACTIV2+1
01127 R 542150 R            SAD     (-1             /IS ONLY '1' TELETYPE AVAILABLE?
01130 R 741000 A            SKP
01131 R 621123 R            JMP*    SETAV2          /NO, EXIT
01132 R 202031 R            LAC     LONE2
01133 R 740001 A            CMA
01134 R 042031 R            DAC     LONE2
01135 R 751200 A            SNA!CLA
01136 R 202151 R            LAC     (777000
01137 R 042045 R            DAC     TEMP2
01140 R 740200 A            SZA
01141 R 621123 R            JMP*    SETAV2
01142 R 777777 A            LAW     -1
01143 R 042015 R            DAC     SILTT2
01144 R 621123 R            JMP*    SETAV2
01145 R 142062 R    SELCT2  DZM     LOOPB
01146 R 202040 R            LAC     KSTOR2          /=TO SELECTED TELETYPE
01147 R 042015 R            DAC     SILTT2
01150 R 101654 R            JMS     ROT9L
01151 R 542045 R            SAD     TEMP2
01152 R 621067 R            JMP*    FLOAT2
01153 R 601115 R            JMP     FLT2A
                            ,EJECT
```

```
                        /ROUTINE TO FLOAT '1' TELETYPE ON UNIT #3 WHILE TYPING ON ALL OTHERS,
                        /
01154 R 000000 A    FLOAT3  0
01155 R 766000 A            LAW     -12000
01156 R 042063 R            DAC     LOOPC           /REINITIALIZE LOOP COUNTER
01157 R 042022 R            DAC     SILSW3          /SET 'SILENT' SWITCH,
01160 R 201515 R            LAC     ACTIV3
01161 R 542150 R            SAD     (-1             /IS THIS UNIT 'ACTIVE'?
01162 R 621154 R            JMP*    FLOAT3          /NO, NO TTY'S
01163 R 202103 R            LAC     (REC3
01164 R 040642 R            DAC     DSTSW3
01165 R 202016 R            LAC     SILTT3
01166 R 101654 R            JMS     ROT9L
01167 R 042045 R            DAC     TEMP2
01170 R 202041 R            LAC     KSTOR6
01171 R 542150 R            SAD     (-1             /IS "ECHO HOLD" MODE SELECTED?
01172 R 741000 A            SKP
01173 R 601232 R            JMP     SELCT3          /YES, ECHO SELECTED TELETYPE
01174 R 222036 R            LAC*    KSTOR3
01175 R 542150 R            SAD     (-1             /END OF "ACTIVE" TABLE?
01176 R 101210 R            JMS     SETAV3          /YES, RESET "ACTIVE" TABLE,
01177 R 222036 R            LAC*    KSTOR3          /GET NEXT TTY TO BE ECHOED,
01200 R 042016 R            DAC     SILTT3
01201 R 442036 R            ISZ     KSTOR3
01202 R 202045 R    FLT3A   LAC     TEMP2
01203 R 542151 R            SAD     (777000         /IS A TTY NOW SILENT?
01204 R 601207 R            JMP     .+3             /NO, EXIT
01205 R 342116 R            TAD     (400            /=TO CLEAR THE 'TR' FLAG,
01206 R 401642 R            XCT     SLS3            /YES, RESTART SILENT TTY,
01207 R 621154 R            JMP*    FLOAT3
                        .EJECT
```

```
01210 R 000000 A    SETAV3  0
01211 R 202076 R            LAC     (ACTIV3
01212 R 042056 R            DAC     KSTOR3
01213 R 201516 R            LAC     ACTIV3+1
01214 R 542150 R            SAD     (-1             /THIS THE ONLY TTY AVAILABLE?
01215 R 741000 A            SKP
01216 R 621210 R            JMP*    SETAV3          /NO, EXIT
01217 R 202032 R            LAC     LONE3
01220 R 740001 A            CMA
01221 R 042032 R            DAC     LONE3
01222 R 751200 A            SNA!CLA                 /FLOAT TTY?
01223 R 202151 R            LAC     (777000         /YES, FLOAT TTY
01224 R 042045 R            DAC     TEMP2           /NO, RESTART TTY,
01225 R 740200 A            SZA
01226 R 621210 R            JMP*    SETAV3
01227 R 777777 A            LAW     -1
01230 R 042016 R            DAC     SILTT3
01231 R 621210 R            JMP*    SETAV3
01232 R 142063 R    SELCT3  DZM     LOOPC
01233 R 202041 R            LAC     KSTOR6          /=TO SELECTED TELETYPE
01234 R 042016 R            DAC     SILTT3
01235 R 101654 R            JMS     ROT9L
01236 R 542045 R            SAD     TEMP2           /IS SELECTED TTY ALREADY SILENT
01237 R 621154 R            JMP*    FLOAT3          /YES, EXIT
01240 R 601202 R            JMP     FLT3A           /NO, RESTART LAST TTY,
                    /ROUTINE TO FLOAT '1' TELETYPE ON UNIT #1 WHILE TYPING ON ALL OTHERS,
                    /
01241 R 000000 A    FLOAT4  0
01242 R 766000 A            LAW     -12000
01243 R 042064 R            DAC     LOOPD           /REINITIALIZE LOOP COUNTER,
01244 R 042023 R            DAC     SILSW4
01245 R 201526 R            LAC     ACTIV4
01246 R 542150 R            SAD     (-1             /IS THIS UNIT 'ACTIVE'?
01247 R 621241 R            JMP*    FLOAT4          /NO, NO TTY'S
01250 R 202104 R            LAC     (REC4
01251 R 040715 R            DAC     DSTSW4
01252 R 202017 R            LAC     SILTT4
01253 R 101654 R            JMS     ROT9L
01254 R 042045 R            DAC     TEMP2
01255 R 202043 R            LAC     KSTOR8
01256 R 542150 R            SAD     (-1             /IS "ECHO HOLD" MODE SELECTED?
01257 R 741000 A            SKP                     /NO, CONTINUE
01260 R 601317 R            JMP     SELCT4          /YES, ECHO SELECTED TELETYPE,
01261 R 222042 R            LAC*    KSTOR7
01262 R 542150 R            SAD     (-1             /END OF "ACTIVE2 TABLE?
01263 R 101275 R            JMS     SETAV4          /YES, RESET "ACTIVE" TABLE,
01264 R 222042 R            LAC*    KSTOR7          /GET NEXT TTY TO BE ECHOED?
01265 R 042017 R            DAC     SILTT4
01266 R 442042 R            ISZ     KSTOR7
01267 R 202045 R    FLT4A   LAC     TEMP2
01270 R 542151 R            SAD     (777000         /IS A TTY NOW SILENT?
01271 R 601274 R            JMP     .+3             /NO, EXIT
01272 R 342116 R            TAD     (400            /=TO CLEAR THE 'TR' FLAG,
```

```
01273 R 401643 R        XCT     SLS4            /YES, RESTART SILENT TTY,
01274 R 621241 R        JMP*    FLOAT4
                        ,EJECT
```

```
01275 R 000000 A    SETAV4  0
01276 R 202077 R            LAC     (ACTIV4
01277 R 042042 R            DAC     KSTOR7
01300 R 201527 R            LAC     ACTIV4+1
01301 R 542150 R            SAD     (-1             /THIS THE ONLY TTY AVAILABLE?
01302 R 741000 A            SKP
01303 R 621275 R            JMP*    SETAV4          /NO, EXIT
01304 R 202033 R            LAC     LONE4
01305 R 740001 A            CMA
01306 R 042033 R            DAC     LONE4
01307 R 751200 A            SNA!CLA                 /FLOAT TTY?
01310 R 202151 R            LAC     (777000         /YES, FLOAT TTY
01311 R 042045 R            DAC     TEMP2           /NO, RESTART TTY,
01312 R 740200 A            SZA
01313 R 621275 R            JMP*    SETAV4
01314 R 777777 A            LAW     -1
01315 R 042017 R            DAC     SILTT4
01316 R 621275 R            JMP*    SETAV4
01317 R 142064 R    SELCT4  DZM     LOOPD
01320 R 202043 R            LAC     KSTOR8          /=TO SELECTED TELETYPE,
01321 R 042017 R            DAC     SILTT4
01322 R 101654 R            JMS     ROT9L
01323 R 542045 R            SAD     TEMP2           /IS SELECTED TTY ALREADY SILENT?
01324 R 621241 R            JMP*    FLOAT4          /YES, EXIT
01325 R 601267 R            JMP     FLT4A           /NO, RESTART LAST TTY,
                            ,EJECT
```

```
                        /TRANSMIT A CHARACTER TO INITIALIZE ALL TELEPRINTERS.
                        /
01326 R 000000 A    TRNSMT  0
01327 R 777740 A            LAW     -40
01330 R 042044 R            DAC     TEMP1           /=TO '32' TELETYPES
01331 R 202152 R            LAC     (SCNTAB
01332 R 042045 R            DAC     TEMP2           /= TO SCANNER ADDRESS TABLE
01333 R 222045 R    TRNS1   LAC*    TEMP2           /SCANNER ADDRESS
01334 R 542150 R            SAD     (-1             /END OF TABLE?
01335 R 621326 R            JMP*    TRNSMT          /YES, EXIT
01336 R 342046 R            TAD     TEMP3           /=TO CHAR, TO BE TRANSMITTED.
01337 R 401640 R            XCT     SLS1            /TRANSMIT TO UNIT #1
01340 R 401641 R            XCT     SLS2            /UNIT #2
01341 R 401642 R            XCT     SLS3            /UNIT #3
01342 R 401643 R            XCT     SLS4            /UNIT #4
01343 R 442045 R            ISZ     TEMP2           /INCREMENT SCANNER ADDRESS
01344 R 601333 R            JMP     TRNS1
                        /SET UP THE 'ASCII' CHARACTER TABLE FOR ALL TELEPRINTERS.
                        /
01345 R 000000 A    SETPRT  0
01346 R 777740 A            LAW     -40
01347 R 042044 R            DAC     TEMP1
01350 R 202111 R            LAC     (TABLE1         /UNIT #1 CHARACTER TABLE
01351 R 042045 R            DAC     TEMP2
01352 R 202117 R            LAC     (PRTTAB         /=TO THE ADDRESS OF 'CHARACTER' BUFFER
01353 R 062045 R            DAC*    TEMP2           /INITIALIZE ALL '32' TTY'S,
01354 R 442045 R            ISZ     TEMP2           /INCREMENT TABLE POINTER
01355 R 442044 R            ISZ     TEMP1
01356 R 601353 R            JMP     .-3
01357 R 621345 R            JMP*    SETPRT
                        .EJECT
```

```
                        /CHARACTER EQUIVALENCE TABLE
                        /
01360 R 000212 A  PRTTAB  212                    / LINE FEED
01361 R 000304 A          304                    / D
01362 R 000303 A          303                    / C
01363 R 000317 A          317                    / O
01364 R 000261 A          261                    / 1
01365 R 000255 A          255                    / -
01366 R 000305 A          305                    / E
01367 R 000302 A          302                    / B
01370 R 000240 A          240                    / SPACE
01371 R 000301 A          301                    / A
01372 R 000302 A          302                    / B
01373 R 000303 A          303                    / C
01374 R 000304 A          304                    / D
01375 R 000305 A          305                    / E
01376 R 000306 A          306                    / F
01377 R 000307 A          307                    / G
01400 R 000310 A          310                    / H
01401 R 000311 A          311                    / I
01402 R 000312 A          312                    / J
01403 R 000313 A          313                    / K
01404 R 000314 A          314                    / L
01405 R 000315 A          315                    / M
01406 R 000316 A          316                    / N
01407 R 000317 A          317                    / O
01410 R 000320 A          320                    / P
01411 R 000321 A          321                    / Q
01412 R 000322 A          322                    / R
01413 R 000323 A          323                    / S
01414 R 000324 A          324                    / T
01415 R 000325 A          325                    / U
01416 R 000326 A          326                    / V
01417 R 000327 A          327                    / W
01420 R 000330 A          330                    / X
01421 R 000331 A          331                    / Y
01422 R 000332 A          332                    / Z
01423 R 000240 A          240                    / SPACE
01424 R 000260 A  NØTABL  260                    / Ø
01425 R 000261 A          261                    / 1
01426 R 000262 A          262                    / 2
01427 R 000263 A          263                    / 3
01430 R 000264 A          264                    / 4
01431 R 000265 A          265                    / 5
01432 R 000266 A          266                    / 6
01433 R 000267 A          267                    / 7
01434 R 000270 A          270                    / 8
01435 R 000271 A          271                    / 9
                          /
                        ;EJECT
```

```
01436 R 000240 A          240                    / SPACE
01437 R 000241 A          241                    / !
01440 R 000242 A          242                    / "
01441 R 000243 A          243                    / #
01442 R 000244 A          244                    / $
01443 R 000245 A          245                    / %
01444 R 000246 A          246                    / &
01445 R 000247 A          247                    / '
01446 R 000250 A          250                    / (
01447 R 000251 A          251                    / )
01450 R 000252 A          252                    / *
01451 R 000253 A          253                    / +
01452 R 000254 A          254                    / ,
01453 R 000256 A          256                    / .
01454 R 000257 A          257                    / /
01455 R 000272 A          272                    / :
01456 R 000273 A          273                    / ;
01457 R 000274 A          274                    / <
01460 R 000275 A          275                    / =
01461 R 000276 A          276                    / >
01462 R 000277 A          277                    / ?
01463 R 000300 A          300                    / @
01464 R 000333 A          333                    / [
01465 R 000334 A          334                    / \
01466 R 000335 A          335                    / ]
01467 R 000336 A          336                    / ↑
01470 R 000337 A          337                    / ←
01471 R 000215 A          215                    / CARRIAGE RETURN
01472 R 000000 A          0
                          /
01473 R       A     ACTIV1  ,BLOCK 11
01504 R       A     ACTIV2  ,BLOCK 11
01515 R       A     ACTIV3  ,BLOCK 11
01526 R       A     ACTIV4  ,BLOCK 11
01537 R       A     TABLE1  ,BLOCK 10
01547 R       A     TABLE2  ,BLOCK 10
01557 R       A     TABLE3  ,BLOCK 10
01567 R       A     TABLE4  ,BLOCK 10
                          /
                    /SCANNER ADDRESS TABLE
                          /
01577 R 000000 A    SCNTAB  0              /TTY #0
01600 R 001000 A            1000           /#1
01601 R 002000 A            2000           /#2
01602 R 003000 A            3000           /#3
01603 R 004000 A            4000           /#4
01604 R 005000 A            5000           /#5
01605 R 006000 A            6000           /#6
01606 R 007000 A            7000           /#7
01607 R 777777 A            777777
                            .EJECT
```

```
                        /DC01-EB IOT LIST
                        /
                        /SKIP ON SCANNER FLAG
                        /
01610 R 704551 A    SSF1    704551              /UNIT #1
01611 R 704411 A    SSF2    704411              /#2
01612 R 704451 A    SSF3    704451              /#3
01613 R 704511 A    SSF4    704511              /#4
                        /
                        /READ SCANNER DATA AND CLEAR THE SCANNER AND REC, FLAG,
01614 R 704552 A    RSD1    704552              /UNIT #1
01615 R 704412 A    RSD2    704412              /#2
01616 R 704452 A    RSD3    704452              /#3
01617 R 704512 A    RSD4    704512              /#4
                        /
                        /DISABLE THE SCANNER AND CLEAR ALL FLAGS,
                        /
01620 R 704544 A    DIS1    704544              /UNIT #1
01621 R 704404 A    DIS2    704404              /#2
01622 R 704444 A    DIS3    704444              /#3
01623 R 704504 A    DIS4    704504              /#4
                        /
                        /LOAD SCANNER ADDRESS
                        /
01624 R 704561 A    LSA1    704561              /UNIT #1
01625 R 704421 A    LSA2    704421              /#2
01626 R 704461 A    LSA3    704461              /#3
01627 R 704521 A    LSA4    704521              /#4
                        /
                        /LOAD SCANNER DATA
                        /
01630 R 704562 A    LSD1    704562              /UNIT #1
01631 R 704422 A    LSD2    704422              /#2
01632 R 704462 A    LSD3    704462              /#3
01633 R 704522 A    LSD4    704522              /#4
                        /
                        /CLEAR SCANNER FLAG AND START SCANNER
                        /
01634 R 704564 A    STS1    704564
01635 R 704424 A    STS2    704424
01636 R 704464 A    STS3    704464
01637 R 704524 A    STS4    704524              /#4
                        /
                        /STOP SCANNER, LOAD DATA AND START SCANNER
                        /
01640 R 704567 A    SLS1    704567              /UNIT #1
01641 R 704427 A    SLS2    704427              /#2
01642 R 704467 A    SLS3    704467              /#3
01643 R 704527 A    SLS4    704527              /#4
                        /
                        ,EJECT
```

```
                        /ROTATE CONTAINS OF 'AC' '9' TIMES RIGHT EXIT WITH DATA 'AC'
01644 R 000000 A    ROT9R   0
01645 R 502107 R            AND     (7000
01646 R 746020 A            CLL!RTR
01647 R 742020 A            RTR
01650 R 742020 A            RTR
01651 R 742020 A            RTR
01652 R 740020 A            RAR
01653 R 621644 R            JMP*    ROT9R
                        /ROTATE CONTAINS OF 'AC' 9 LEFT,
01654 R 000000 A    ROT9L   0
01655 R 502153 R            AND     (777
01656 R 746010 A            CLL!RTL
01657 R 742010 A            RTL
01660 R 742010 A            RTL
01661 R 742010 A            RTL
01662 R 740010 A            RAL
01663 R 621654 R            JMP*    ROT9L
                        /TEST FOR DATA 'SW4' WHICH INHIBITS THE DC01-EB TEST.
01664 R 000000 A    HOLDSW  0
01665 R 750004 A            LAS
01666 R 500010 R            AND     DATASW          /DATA SW4
01667 R 741200 A            SNA                     /IS SWITCH SET?
01670 R 621664 R            JMP*    HOLDSW          /NO, EXIT
01671 R 200151 R            LAC     DSTSW0
01672 R 042071 R            DAC     SAVDST          /SAVE RETURN ADDRESS
01673 R 202154 R            LAC     (HOLD,1
01674 R 040151 R            DAC     DSTSW0
01675 R 101702 R            JMS     CLRTRN          /CLEAR TRN FLAGS AND SAVE DATA,
01676 R 601732 R            JMP     EXITM5          /EXIT '-5'
01677 R 202071 R    HOLD,1  LAC     SAVDST
01700 R 040151 R            DAC     DSTSW0          /RESTORE RETURN ADDRESS,
01701 R 601665 R            JMP     HOLDSW+1        /RE-TEST SWITCH,
                            /
01702 R 000000 A    CLRTRN  0
01703 R 401610 R            XCT     SSF1            /SKIP ON SCANNER FLAG, UNIT #1
01704 R 601707 R            JMP     .+3
01705 R 401614 R            XCT     RSD1            /READ SCANNER DATA,
01706 R 042024 R            DAC     HLDTT1          /SAVE DATA,
01707 R 401611 R            XCT     SSF2            /SKIP ON SCANNER FLAG,UNIT #2,
01710 R 601713 R            JMP     .+3
01711 R 401615 R            XCT     RSD2            /READ SCANNER DATA,
01712 R 042025 R            DAC     HLDTT2          /SAVE DATA,
01713 R 401612 R            XCT     SSF3            /SKIP ON SCANNER FLAG,UNIT #3,
01714 R 601717 R            JMP     .+3
01715 R 401616 R            XCT     RSD3            /READ SCANNER DATA,
01716 R 042026 R            DAC     HLDTT3          /SAVE DATA,
01717 R 401613 R            XCT     SSF4            /SKIP ON SCANNER FLAG, UNIT #4
01720 R 601723 R            JMP     .+3
01721 R 401617 R            XCT     RSD4            /READ SCANNER DATA,
01722 R 042027 R            DAC     HLDTT4          /SAVE DATA,
01723 R 621702 R            JMP*    CLRTRN
                            ,EJECT
```

```
                        /SET UP TO TYPE 'DONE',
01724 R 777774 A    EXITM4  LAW     -4
01725 R 040020 R            DAC     SYSERR
01726 R 140021 R            DZM     SYSERR+1
01727 R 140022 R            DZM     ERCODE
01730 R 100450 R            JMS     DISFLG          /DISABLE AND CLEAR SCANNER FLAGS
01731 R 600222 R            JMP     EXIT
                        /SETUP FOR '-5' EXIT,
01732 R 777773 A    EXITM5  LAW     -5
01733 R 040020 R            DAC     SYSERR
01734 R 140021 R            DZM     SYSERR+1
01735 R 140022 R            DZM     ERCODE
01736 R 600222 R            JMP     EXIT
                        /EXIT FOR A 'NO-FLAG CONDITION,
01737 R 705512 A    NOFLAG  705512                  /TEST FOR 'API' (RPL)
01740 R 741100 A            SPA                     /IS 'API' ON,
01741 R 602001 R            JMP     ERROR2          /YES, 'API' ERROR,
01742 R 777777 A            LAW     -1              /NO
01743 R 620144 R            JMP*    SERVCE
                            ,EJECT
```

```
                        /ERROR1, DATA TRANSFER ERROR,
                                /
01744 R 000000 A    ERROR1  0
01745 R 200151 R            LAC     DSTSW0
01746 R 042067 R            DAC     SAVEPC
01747 R 777776 A            LAW     -2
01750 R 040020 R            DAC     SYSERR
01751 R 202155 R            LAC     (1              /ERROR CODE
01752 R 040022 R            DAC     ERCODE
01753 R 777774 A            LAW     -4
01754 R 040021 R            DAC     ERCODE-1
01755 R 202044 R            LAC     TEMP1
01756 R 502107 R            AND     (7000           /MASK SCANNER ADDRESS
01757 R 342073 R            TAD     UNIT            /ADD FAILING UNIT NO,
01760 R 040023 R            DAC     ERCODE+1        /#1, SCANNER ADDRESS,
01761 R 222046 R            LAC*    TEMP3
01762 R 040024 R            DAC     ERCODE+2        /#2, TRANSMITTED DATA,
01763 R 202044 R            LAC     TEMP1
01764 R 502115 R            AND     (377
01765 R 040025 R            DAC     ERCODE+3        /#3, RECEIVED DATA,
01766 R 202156 R            LAC     (ERENTER
01767 R 040151 R            DAC     DSTSW0
01770 R 101702 R            JMS     CLRTRN          /CLEAR ALL OTHER TRN FLAGS AND SAVE DATA,
01771 R 600222 R            JMP     EXIT
                        /ENTER HERE AFTER PRINTING ERROR,
01772 R 101702 R    ERENTER JMS     CLRTRN
01773 R 200020 R            LAC     SYSERR
01774 R 542157 R            SAD     (-2             /HAS ERROR BEEN PRINTED?
01775 R 600222 R            JMP     EXIT            /NO, EXIT
01776 R 202067 R            LAC     SAVEPC
01777 R 040151 R            DAC     DSTSW0
02000 R 621744 R            JMP*    ERROR1
                        /ERROR2, 'API' INTERRUPTED WITH NO FLAGS SET,
02001 R 777776 A    ERROR2  LAW     -2
02002 R 040020 R            DAC     SYSERR
02003 R 202160 R            LAC     (2              /ERROR CODE
02004 R 040022 R            DAC     ERCODE
02005 R 777777 A            LAW     -1
02006 R 040021 R            DAC     ERCODE-1
02007 R 600222 R            JMP     EXIT
                            ,EJECT
```

```
02010 R 000000 A     ECHO1    0
02011 R 000000 A     ECHO2    0
02012 R 000000 A     ECHO3    0
02013 R 000000 A     ECHO4    0
02014 R 000000 A     SILTT1   0
02015 R 000000 A     SILTT2   0
02016 R 000000 A     SILTT3   0
02017 R 000000 A     SILTT4   0
02020 R 000000 A     SILSW1   0
02021 R 000000 A     SILSW2   0
02022 R 000000 A     SILSW3   0
02023 R 000000 A     SILSW4   0
02024 R 000000 A     HLDTT1   0
02025 R 000000 A     HLDTT2   0
02026 R 000000 A     HLDTT3   0
02027 R 000000 A     HLDTT4   0
02030 R 000000 A     LONE1    0
02031 R 000000 A     LONE2    0
02032 R 000000 A     LONE3    0
02033 R 000000 A     LONE4    0
02034 R 000000 A     KSTOR1   0
02035 R 000000 A     KSTOR2   0
02036 R 000000 A     KSTOR3   0
02037 R 000000 A     KSTOR4   0
02040 R 000000 A     KSTOR5   0
02041 R 000000 A     KSTOR6   0
02042 R 000000 A     KSTOR7   0
02043 R 000000 A     KSTOR8   0
02044 R 000000 A     TEMP1    0
02045 R 000000 A     TEMP2    0
02046 R 000000 A     TEMP3    0
02047 R 000000 A     TEMP4    0
02050 R 000000 A     TEMP5    0
02051 R 000000 A     TEMP6    0
02052 R 000000 A     TEMP7    0
02053 R 000000 A     TEMP8    0
02054 R 000000 A     TEMP9    0
02055 R 000000 A     TEMP10   0
02056 R 000000 A     TEMP11   0
02057 R 000000 A     CKREC    0
02060 R 000000 A     TYPDATA  0
02061 R 000000 A     LOOPA    0
02062 R 000000 A     LOOPB    0
02063 R 000000 A     LOOPC    0
02064 R 000000 A     LOOPD    0
02065 R 000000 A     PASCNT   0
02066 R 000000 A     WAITCT   0
02067 R 000000 A     SAVEPC   0
02070 R 000000 A     SAVEAC   0
02071 R 000000 A     SAVDST   0
02072 R 000000 A     FLGDRV   0
02073 R 000000 A     UNIT     0
                              .EJECT
```

```
                000000 R            ,END USERSW
     02074 R    001473 R  *L
     02075 R    001504 R  *L
     02076 R    001515 R  *L
     02077 R    001526 R  *L
     02100 R    000152 R  *L
     02101 R    000515 R  *L
     02102 R    000570 R  *L
     02103 R    000643 R  *L
     02104 R    000716 R  *L
     02105 R    600000 A  *L
     02106 R    000215 A  *L
     02107 R    007000 A  *L
     02110 R    000212 A  *L
     02111 R    001537 R  *L
     02112 R    001547 R  *L
     02113 R    001557 R  *L
     02114 R    001567 R  *L
     02115 R    000377 A  *L
     02116 R    000400 A  *L
     02117 R    001360 R  *L
     02120 R    000526 R  *L
     02121 R    002037 R  *L
     02122 R    002010 R  *L
     02123 R    002061 R  *L
     02124 R    000201 A  *L
     02125 R    000732 R  *L
     02126 R    000243 A  *L
     02127 R    000601 R  *L
     02130 R    002040 R  *L
     02131 R    002011 R  *L
     02132 R    002062 R  *L
     02133 R    000654 R  *L
     02134 R    002041 R  *L
     02135 R    002012 R  *L
     02136 R    002063 R  *L
     02137 R    000727 R  *L
     02140 R    002043 R  *L
     02141 R    002013 R  *L
     02142 R    002064 R  *L
     02143 R    000007 A  *L
     02144 R    001423 R  *L
     02145 R    000267 A  *L
     02146 R    000277 A  *L
     02147 R    000257 A  *L
     02150 R    777777 A  *L
     02151 R    777000 A  *L
     02152 R    001577 R  *L
     02153 R    000777 A  *L
     02154 R    001677 R  *L
     02155 R    000001 A  *L
     02156 R    001772 R  *L
     02157 R    777776 A  *L
```

```
02160 R 000002 A *L
          SIZE=02206      NO ERROR LINES
```

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ACTIV1 | 01473 | R | ACTIV2 | 01504 | R | ACTIV3 | 01515 | R | ACTIV4 | 01526 | R |
| CHKFLG | 00227 | R | CHKTRN | 00303 | R | CHKTR2 | 00326 | R | CHKTR3 | 00350 | R |
| CHKTR4 | 00372 | R | CKFLG2 | 00240 | R | CKFLG3 | 00251 | R | CKFLG4 | 00262 | R |
| CKREC | 02057 | R | CKREC1 | 00456 | R | CKREC2 | 00531 | R | CKREC3 | 00604 | R |
| CKREC4 | 00657 | R | CLRFG1 | 00526 | R | CLRFG2 | 00601 | R | CLRFG3 | 00654 | R |
| CLRFG4 | 00727 | R | CLRTRN | 01702 | R | CMPUTE | 00754 | R | DATASW | 00010 | R |
| DECODA | 00764 | R | DECODE | 00732 | R | DISFLG | 00450 | R | DIS1 | 01620 | R |
| DIS2 | 01621 | R | DIS3 | 01622 | R | DIS4 | 01623 | R | DSTSW0 | 00151 | R |
| DSTSW1 | 00514 | R | DSTSW2 | 00567 | R | DSTSW3 | 00642 | R | DSTSW4 | 00715 | R |
| EBA | 707764 | A | ECHO1 | 02010 | R | ECHO2 | 02011 | R | ECHO3 | 02012 | R |
| ECHO4 | 02013 | R | EEM | 707702 | A | ERCODE | 00022 | R | ERENTE | 01772 | R |
| ERROR1 | 01744 | R | ERROR2 | 02001 | R | EXIT | 00222 | R | EXITM4 | 01724 | R |
| EXITM5 | 01732 | R | EXTCKF | 00273 | R | FLGDRV | 02072 | R | FLOAT1 | 01002 | R |
| FLOAT2 | 01067 | R | FLOAT3 | 01154 | R | FLOAT4 | 01241 | R | FLT1A | 01030 | R |
| FLT2A | 01115 | R | FLT3A | 01202 | R | FLT4A | 01267 | R | HLDTT1 | 02024 | R |
| HLDTT2 | 02025 | R | HLDTT3 | 02026 | R | HLDTT4 | 02027 | R | HOLDSW | 01664 | R |
| HOLD.1 | 01677 | R | INIT | 00031 | R | KSTOR1 | 02034 | R | KSTOR2 | 02035 | R |
| KSTOR3 | 02036 | R | KSTOR4 | 02037 | R | KSTOR5 | 02040 | R | KSTOR6 | 02041 | R |
| KSTOR7 | 02042 | R | KSTOR8 | 02043 | R | LONE1 | 02030 | R | LONE2 | 02031 | R |
| LONE3 | 02032 | R | LONE4 | 02033 | R | LOOPA | 02061 | R | LOOPB | 02062 | R |
| LOOPC | 02063 | R | LOOPD | 02064 | R | LSA1 | 01624 | R | LSA2 | 01625 | R |
| LSA3 | 01626 | R | LSA4 | 01627 | R | LSD1 | 01630 | R | LSD2 | 01631 | R |
| LSD3 | 01632 | R | LSD4 | 01633 | R | NOFLAG | 01737 | R | NOTABL | 01424 | R |
| PASCNT | 02065 | R | PRCHR1 | 00433 | R | PRTCHR | 00414 | R | PRTTAB | 01360 | R |
| REC1 | 00515 | R | REC2 | 00570 | R | REC3 | 00643 | R | REC4 | 00716 | R |
| RESETP | 00445 | R | ROT9L | 01654 | R | ROT9R | 01644 | R | RSD1 | 01614 | R |
| RSD2 | 01615 | R | RSD3 | 01616 | R | RSD4 | 01617 | R | RUBOUT | 00760 | R |
| SAVDST | 02071 | R | SAVEAC | 02070 | R | SAVEPC | 02067 | R | SCNTAB | 01577 | R |
| SELCT1 | 01060 | R | SELCT2 | 01145 | R | SELCT3 | 01232 | R | SELCT4 | 01317 | R |
| SERVCE | 00144 | R | SETAV1 | 01036 | R | SETAV2 | 01123 | R | SETAV3 | 01210 | R |
| SETAV4 | 01275 | R | SETPRT | 01345 | R | SILSW1 | 02020 | R | SILSW2 | 02021 | R |
| SILSW3 | 02022 | R | SILSW4 | 02023 | R | SILTT1 | 02014 | R | SILTT2 | 02015 | R |
| SILTT3 | 02016 | R | SILTT4 | 02017 | R | SLS1 | 01640 | R | SLS2 | 01641 | R |
| SLS3 | 01642 | R | SLS4 | 01643 | R | SSF1 | 01610 | R | SSF2 | 01611 | R |
| SSF3 | 01612 | R | SSF4 | 01613 | R | STS1 | 01634 | R | STS2 | 01635 | R |
| STS3 | 01636 | R | STS4 | 01637 | R | SYSERR | 00020 | R | TABLE1 | 01537 | R |
| TABLE2 | 01547 | R | TABLE3 | 01557 | R | TABLE4 | 01567 | R | TAGA | 00776 | R |
| TEMP1 | 02044 | R | TEMP10 | 02055 | R | TEMP11 | 02056 | R | TEMP2 | 02045 | R |
| TEMP3 | 02046 | R | TEMP4 | 02047 | R | TEMP5 | 02050 | R | TEMP6 | 02051 | R |
| TEMP7 | 02052 | R | TEMP8 | 02053 | R | TEMP9 | 02054 | R | TRNSMT | 01326 | R |
| TRNS1 | 01333 | R | TYPDAT | 02060 | R | TYPEQM | 00752 | R | UNIT | 02073 | R |
| USERSW | 00000 | R | WAITCT | 02066 | R | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| USERSW | 00000 | R | DATASW | 00010 | R | SYSERR | 00020 | R | ERCODE | 00022 | R |
| INIT | 00031 | R | SERVCE | 00144 | R | DSTSW0 | 00151 | R | EXIT | 00222 | R |
| CHKFLG | 00227 | R | CKFLG2 | 00240 | R | CKFLG3 | 00251 | R | CKFLG4 | 00262 | R |
| EXTCKF | 00273 | R | CHKTRN | 00303 | R | CHKTR2 | 00326 | R | CHKTR3 | 00350 | R |
| CHKTR4 | 00372 | R | PRTCHR | 00414 | R | PRCHR1 | 00433 | R | RESETP | 00445 | R |
| DISFLG | 00450 | R | CKREC1 | 00456 | R | DSTSW1 | 00514 | R | REC1 | 00515 | R |
| CLRFG1 | 00526 | R | CKREC2 | 00531 | R | DSTSW2 | 00567 | R | REC2 | 00570 | R |
| CLRFG2 | 00601 | R | CKREC3 | 00604 | R | DSTSW3 | 00642 | R | REC3 | 00643 | R |
| CLRFG3 | 00654 | R | CKREC4 | 00657 | R | DSTSW4 | 00715 | R | REC4 | 00716 | R |
| CLRFG4 | 00727 | R | DECODE | 00732 | R | TYPEQM | 00752 | R | CMPUTE | 00754 | R |
| RUBOUT | 00760 | R | DECODA | 00764 | R | TAGA | 00776 | R | FLOAT1 | 01002 | R |
| FLT1A | 01030 | R | SETAV1 | 01036 | R | SELCT1 | 01060 | R | FLOAT2 | 01067 | R |
| FLT2A | 01115 | R | SETAV2 | 01123 | R | SELCT2 | 01145 | R | FLOAT3 | 01154 | R |
| FLT3A | 01202 | R | SETAV3 | 01210 | R | SELCT3 | 01232 | R | FLOAT4 | 01241 | R |
| FLT4A | 01267 | R | SETAV4 | 01275 | R | SELCT4 | 01317 | R | TRNSMT | 01326 | R |
| TRNS1 | 01333 | R | SETPRT | 01345 | R | PRTTAB | 01360 | R | NOTABL | 01424 | R |
| ACTIV1 | 01473 | R | ACTIV2 | 01504 | R | ACTIV3 | 01515 | R | ACTIV4 | 01526 | R |
| TABLE1 | 01537 | R | TABLE2 | 01547 | R | TABLE3 | 01557 | R | TABLE4 | 01567 | R |
| SCNTAB | 01577 | R | SSF1 | 01610 | R | SSF2 | 01611 | R | SSF3 | 01612 | R |
| SSF4 | 01613 | R | RSD1 | 01614 | R | RSD2 | 01615 | R | RSD3 | 01616 | R |
| RSD4 | 01617 | R | DIS1 | 01620 | R | DIS2 | 01621 | R | DIS3 | 01622 | R |
| DIS4 | 01623 | R | LSA1 | 01624 | R | LSA2 | 01625 | R | LSA3 | 01626 | R |
| LSA4 | 01627 | R | LSD1 | 01630 | R | LSD2 | 01631 | R | LSD3 | 01632 | R |
| LSD4 | 01633 | R | STS1 | 01634 | R | STS2 | 01635 | R | STS3 | 01636 | R |
| STS4 | 01637 | R | SLS1 | 01640 | R | SLS2 | 01641 | R | SLS3 | 01642 | R |
| SLS4 | 01643 | R | ROT9R | 01644 | R | ROT9L | 01654 | R | HOLDSW | 01664 | R |
| HOLD,1 | 01677 | R | CLRTRN | 01702 | R | EXITM4 | 01724 | R | EXITM5 | 01732 | R |
| NOFLAG | 01737 | R | ERROR1 | 01744 | R | ERENTE | 01772 | R | ERROR2 | 02001 | R |
| ECHO1 | 02010 | R | ECHO2 | 02011 | R | ECHO3 | 02012 | R | ECHO4 | 02013 | R |
| SILTT1 | 02014 | R | SILTT2 | 02015 | R | SILTT3 | 02016 | R | SILTT4 | 02017 | R |
| SILSW1 | 02020 | R | SILSW2 | 02021 | R | SILSW3 | 02022 | R | SILSW4 | 02023 | R |
| HLDTT1 | 02024 | R | HLDTT2 | 02025 | R | HLDTT3 | 02026 | R | HLDTT4 | 02027 | R |
| LONE1 | 02030 | R | LONE2 | 02031 | R | LONE3 | 02032 | R | LONE4 | 02033 | R |
| KSTOR1 | 02034 | R | KSTOR2 | 02035 | R | KSTOR3 | 02036 | R | KSTOR4 | 02037 | R |
| KSTOR5 | 02040 | R | KSTOR6 | 02041 | R | KSTOR7 | 02042 | R | KSTOR8 | 02043 | R |
| TEMP1 | 02044 | R | TEMP2 | 02045 | R | TEMP3 | 02046 | R | TEMP4 | 02047 | R |
| TEMP5 | 02050 | R | TEMP6 | 02051 | R | TEMP7 | 02052 | R | TEMP8 | 02053 | R |
| TEMP9 | 02054 | R | TEMP10 | 02055 | R | TEMP11 | 02056 | R | CKREC | 02057 | R |
| TYPDAT | 02060 | R | LOOPA | 02061 | R | LOOPB | 02062 | R | LOOPC | 02063 | R |
| LOOPD | 02064 | R | PASCNT | 02065 | R | WAITCT | 02066 | R | SAVEPC | 02067 | R |
| SAVEAC | 02070 | R | SAVDST | 02071 | R | FLGDRV | 02072 | R | UNIT | 02073 | R |
| EEM | 707702 | A | EBA | 707764 | A | | | | | | |