

IDENTIFICATION

PRODUCT CODE            MAINDEC-15-DAUCA-B-D  
PRODUCT NAME            UNICHANNEL-15 DIAGNOSTIC  
DATE CREATED            JANUARY 7, 1974  
MAINTAINER              PDP-15 DIAGNOSTICS  
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1. ABSTRACT

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THIS DIAGNOSTIC TESTS THE UNICHANNEL15 HARDWARE WHICH CONSISTS OF THE PDP-15/PDP-11 COMMON MEMORY ACCESSED THROUGH THE MX15-B, THE DR15, AND THE DR11-C'S (2).

THE DIAGNOSTIC CONSISTS OF TWO SEPARATE PROGRAMS, A PDP-15 PROGRAM AND A PDP-11 PROGRAM. LISTINGS OF BOTH PROGRAMS MAY BE FOUND IN THE BACK OF THIS DOCUMENT, AND SHOULD BE CONSULTED TO DETERMINE WHAT EACH PROCESSOR WAS DOING AT THE TIME A FAILURE OCCURRED.

2. EQUIPMENT REQUIREMENTS

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A. PDP-15 (WITH AT LEAST 12K OF MEMORY, PAPER TAPE READER AND CONSOLE TTY)

B. UNICHANNEL15 HARDWARE CONSISTING OF:  
4K OR 8K PDP-11/05  
MX15-B  
DR15  
2 DR11-C'S

3. STORAGE

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THE PDP-11 PROGRAM OCCUPIES 2K OF CORE  
THE PDP-15 PROGRAM OCCUPIES 4K OF CORE

## 4. PRELIMINARY PROGRAMS

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ALL APPLICABLE PDP-15 AND PDP-11 MAINDEC DIAGNOSTICS MUST RUN SUCCESSFULLY BEFORE ATTEMPTING TO RUN THIS DIAGNOSTIC. APPLICABLE MEANING DIAGNOSTICS WHICH CHECK ALL HARDWARE PRESENT MINUS THE UNICHANNEL HARDWARE.

## 5. LOADING PROCEDURES

-----  
PLACE THE BANK MODE SWITCH ON THE PDP-15 ON A 1 AND LOAD THE DIAGNOSTIC IN THE FOLLOWING ORDER.

## A. PDP-11

1. PLACE THE ABSL11 LOADER IN THE PDP-15 READER
2. SET THE PDP-15 ADDRESS SWITCHES TO 17700
3. PRESS RESET AND THEN READ IN
4. SET THE PDP-11 ADDRESS SWITCHES TO 60000 FOR 4K OF LOCAL PDP-11 MEMORY OR 100000 FOR 8K
5. PRESS LOAD ADDRESS AND THEN START ON THE PDP-11
6. PLACE THE PDP-11 BINARY IN THE PDP-15 READER
7. PRESS CONTINUE ON THE PDP-15
8. THE PDP-11 BINARY IS NOW LOADED

## B. PDP-15

1. PLACE THE PDP-15 BINARY IN THE PDP-15 READER
2. SET THE PDP-15 ADDRESS SWITCHES TO 17700
3. PRESS RESET AND THEN READ IN

## 6. SWITCH OPTIONS

-----  
A. PDP-11 (NONE)

B. PDP-15

AC SWITCH	DESCRIPTION
0=0	HALT ON ERROR
0=1	LOOP ON ERROR
1=1	INDICATE ERROR AND GO ON TO NEXT TEST (HAS PRIORITY OVER AC SWITCH 0)
2=0	RUN MULTIPLE PASSES OF EACH TEST
2=1	RUN EACH TEST ONLY ONCE PER PASS
3=1	DELETE TTY OUTPUT
4=1	RING BELL ON ERROR
5=1	TYPE # OF PASSES (IN OCTAL) COMPLETED SINCE PROGRAM WAS LAST STARTED. MESSAGE WILL BE TYPED AT END OF CURRENT PASS AND DOUBLES AS END OF PASS INDICATOR.
6=8	INDICATES AMOUNT OF COMMON MEMORY AVAILABLE. (MEMORY THAT CAN BE ACCESSED BY BOTH PROCESSORS)
	AC SW 6=8                  COMMON MEM
	0                              8K
	1                              12K
	2                              16K
	3                              20K
	4                              24K
	5                              "
	6                              "
	7                              "
	24K OF COMMON MEMORY IS A LEGAL SELECTION ONLY WHEN THE 11/05 HAS ONLY 4K OF LOCAL MEMORY.
9=1	HALT AT THE END OF EACH TEST
10=1	RANDOMLY SELECT THE ORDER IN WHICH TESTS ARE RUN, AND IF AN ERROR OCCURS, REPORT THE 3 TESTS WHICH WERE RUN PREVIOUS TO IT.
11-17	LOOP ON TEST SELECTED (WHEN SET TO 177, THE POWER FAIL TEST WILL BE SELECTED)

NOTE: SWITCH OPTIONS ABOVE CAN BE SET WHEN PROGRAM IS RUNNING.

## 7. STARTING AND RESTARTING ADDRESSES

- 
- A. PDP-11
    - START=200
    - RESTART=1100
  - B. PDP-15
    - START=200
    - RESTART=200

## 8. STARTING PROCEDURE

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EITHER PROGRAM MAY BE STARTED FIRST, THEY WILL AUTOMATICALLY SYNC UP.

- A. PDP-11
  - A. LOAD THE STARTING (OR RESTARTING) ADDRESS INTO THE SWITCHES
  - B. PRESS START
- B. PDP-15
  - A. LOAD THE STARTING ADDRESS INTO THE ADDRESS SWITCHES
  - B. SELECT AC SWITCH OPTIONS
  - C. PRESS RESET
  - D. PRESS STRART

## 9. OPERATING PROCEDURE

- 
- A MAXIMUM OF AC SWITCH OPTIONS HAS BEEN PROVIDED, WITH NONE OF THE AC SWITCHES SET THE PROGRAM WILL PERFORM THE FOLLOWING:
- A. ALL TESTS WILL BE RUN (WITH THE EXCEPTION OF POWER FAIL, WHICH MUST BE SELECTED MANUALLY)
  - B. TESTS WILL BE RUN FROM FIRST TO LAST, IN ORDER
  - C. THE PROGRAM WILL HALT ONLY ON ERROR
  - D. EACH TEST WILL BE RUN A PRESELECTED NUMBER OF TIMES BEFORE THE NEXT SEQUENTIAL TEST IS RUN, EACH TEST IS NOT EXECUTED THE SAME NUMBER OF TIMES, BUT INSTEAD IS REPEATED AS REQUIRED FOR THAT PARTICULAR TEST
  - E. ALL ERRORS WILL BE INDICATED BY AN ERROR MESSAGE OUTPUT ON THE PDP-15 TTY, AND THEN ONLY THE PDP-15 WILL HALT, PRESSING CONTINUE WILL REPEAT THE FAILING TEST IN BOTH PROCESSORS,
  - F. A FAST SERIES OF THREE TTY BELLS WILL BE OUTPUT AT THE END OF A PASS
  - G. THE PROGRAM WILL ASSUME ONLY THE MINIMUM OF 8K OF COMMON MEMORY IS AVAILABLE UNLESS OTHERWISE INDICATED IN AC SWITCHES
- 6-8

## 10. ERRORS

-----

ALL ERRORS WILL BE INDICATED BY A PDP-15 TTY MESSAGE, A SAMPLE WOULD BE:

TST- GOOD - BAD  
AA BBBB BB CCCCC

WHICH WOULD INDICATE THAT TEST AA FAILED, THAT IT EXPECTED TO FIND DATA EQUAL TO BBBB BB BUT INSTEAD FOUND CCCCC, ANOTHER SAMPLE:

TST- ADDR - GOOD - BAD  
AA BBBB BB CCCCC DDDDD

WHICH WOULD INDICATE THAT TEST AA FAILED, THAT IT EXPECTED TO FIND DATA CCCCC AT ADDRESS BBBB BB AND INSTEAD FOUND DDDDD, ANOTHER:

TST-ERROR DESCRIPTION

WILL INDICATE THE TEST THAT FAILED AND A BRIEF DESCRIPTION OF WHAT HAPPENED, IN ALL CASES THE PROGRAM LISTINGS SHOULD BE CONSULTED TO DETERMINE EXACTLY WHAT EACH PROCESSOR WAS TRYING TO DO. WHEREVER POSSIBLE IDENTICAL OR VERY SIMILAR PROGRAM TAGS WERE USED IN BOTH THE PDP-15 AND PDP-11 PROGRAMS TO HELP IN CORRELATING THE TWO.

## 11. PROGRAM DESCRIPTION

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THERE ARE TWO COMMON MEMORY LOCATIONS WHICH ARE USED TO KEEP THE TWO PROGRAMS IN SYNC. BOTH PROGRAMS CONSTANTLY READ AND WRITE THESE LOCATIONS. IF FOR ANY REASON (I.E. BAD INFORMATION, PROCESSOR NOT ADDRESSING CORRECT LOC, ETC.) THE PROCESSORS ARE NOT RECEIVING WHAT THEY EXPECT, THE DIAGNOSTIC WILL NOT RUN. THE PDP-15 WILL USUALLY DETECT THIS FACT AND TYPE THE MESSAGE "WAITING FOR PDP-11 TO INDICATE READY TO TEST". THESE TWO LOCATIONS ARE TAGGED "IDNE15" AND "IDNE11". IT IS STILL POSSIBLE THAT THE PROGRAMS MAY GET OUT OF SYNC FOR THE ABOVE REASONS AND SIMPLY HANG. THE FACT THAT THE PROGRAM IS HUNG MAY BE DETERMINED BY MONITORING THE LIMIT REGISTER ON THE 15'S CONSOLE. IT ALWAYS CONTAINS THE TEST NUMBER CURRENTLY BEING RUN BY THE PDP-15. THE PDP-11 PROGRAM NEVER HALTS UNLESS AN UNEXPECTED TRAP OCCURS. WHENEVER ONE PROGRAM IS STARTED OR RESTARTED THE OTHER PROGRAM MUST ALSO BE RESTARTED. TTY ERROR MESSAGES WILL ALWAYS INDICATE PDP-15 ADDRESSES. THE DATA WORDS OUTPUT WILL EITHER BE THE ADDRESS OF THAT LOCATION OR ALL 1'S DEPENDING ON THE TEST EXECUTED.

12.

PROGRAM LISTINGS (PDP-15 AND PDP-11)  
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        .TITLE * UNICHANNEL15 * MAINDEC-15-DAUCA-B * MAY 25, 1973 *
        .ABS
/COPYRIGHT 1973, DIGITAL EQUIPMENT CORP., MAYNARD, MASS, 01754
/
/AC SWITCH OPTIONS
/0      =0 MALT ON ERROR
/0      =1 LOOP ON ERROR (FOREVER)
/1      =1 INDICATE ERROR & GO ON TO NEXT TEST (HAS PRIORITY OVER AC 0)
/2      =0 RUN MULTIPLE PASSES OF EACH TEST
/2      =1 RUN EACH TEST ONCE
/3      =1 DELETE TTY OUTPUT
/4      =1 RING BELL ON ERROR
/5      =1 TYPE # OF COMPLETE PASSES AT THE END OF CURRENT PASS (IN OCTAL)
        (ALSO MAY BE USED TO INDICATE END OF EACH PASS)
/6-8    = INDICATES AMOUNT OF COMMON MEMORY AVAILABLE
/
/        0=8K
/        1=12K
/        2=16K
/        3=20K
/        4=24K
/        5= "
/        6= "
/        7= "
/
/9      =1 MALT AT END OF EACH TEST
/10     =1 RANDOMLY SELECT THE ORDER IN WHICH TESTS ARE RUN, AND IF
        AN ERROR OCCURS, REPORT THE 3 TESTS WHICH WERE RUN PREVIOUSLY.
/11-17  = LOOP ON TEST SELECTED
/        = 177 SELECT POWER FAIL TEST
/
700401  TSF=700401
700402  TCF=700402
700406  TLS=700406
700301  KSF=700301
700312  KRB=700312
703201  PFSF=703201
722000  PAL=722000
705512  RPL=705512
701741  MPSNE=701741
/
/*****NOTE: TEST BEING EXECUTED IS INDICATED IN LIMIT REGISTER,
        .EJECT
    
```

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00200   .LOC 200
00200 600215 / JMP ISTART
/
/COMMON MEM INTER-COMM LOC'S (ADDRESSES MUST NOT BE CHANGED)
00201   .LOC 201
00201 000000 TEST 0 /INDICATES # OF TEST THAT FAILED
00202   .LOC 202
00202 000000 ADR 0
00203   .LOC 203
00203 000000 GOOD 0
        /AFTER ERROR CONTAINS ADDRESS AND DATA EXPECTED
        /($AME). THE ADDRESS POINTING TO AN UPPER OR
        /LOWER 2K SEGMENT OF A 4K PAGE, IN COMBINATION
        /WITH THE TEST#, ALLOWS OPERATOR TO DETERMINE
        /IF ERROR WAS DETECTED WHILE 15 OR 11 WAS
        /READING. IF 4TH DIGIT FROM RIGHT IN THE GOOD
        /WORD IS 3 OR LESS, THE ERROR OCCURRED IN THE
        /LOWER 2K SEGMENT. IF NOT IT WAS THE UPPER 2K.

00204   .LOC 204
00204 000000 BAD 0 /AFTER ERROR CONTAINS DATA READ
00205   .LOC 205
00205 000000 ENRFLG 0 /-1 OR 177777 INDICATES ERROR
00206   .LOC 206
00206 000000 RNSA15 0 /INDICATES 15'S STARTING ADDRESS FOR READ OR
        /WRITE
00207   .LOC 207
00207 000000 RNSA11 0 /INDICATES 11'S STARTING ADDRESS FOR READ OR
        /WRITE
00210   .LOC 210
00210 000000 ERRIN) 0 /SET BY ERROR, ONLY CLEARED AT START OF PROGRAM
00211   .LOC 211
00211 000000 BR5TV 0 /CONTAINS PDP-11 BR5 TRAP VECTOR FOR DR11-C
00212   .LOC 212
00212 000000 BR7TV 0 /CONTAINS PDP-11 BR7 TRAP VECTOR FOR DR11-C
00213   .LOC 213
00213 000000 IDNE15 0 /-1 INDICATES 15 DONE FUNCTION
00214   .LOC 214
00214 000000 IDNE11 0 /177777 INDICATES 11 DONE FUNCTION
        .EJECT
    
```



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/
00215 140213 ISTART DZM IDNE15 /CLEAR PDP-15 DONE FUNCTION INDICATOR
00216 140204 DZM BAD
00217 143424 DZM PASCNT
00220 206403 LAC (MLT
00221 040021 DAC 21
00222 206404 LAC (TEST1
00223 043455 DAC ITST
00224 203432 LAC INIT
00225 740200 SZX /FIRST TIME THROUGH?
00226 600273 JMP START /NO
00227 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00230 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00231 103051 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
00232 005141 MES36 /TEST API?
00233 143415 DZM IAPI
00234 700301 KSF
00235 600234 JMP .-1
00236 700312 KRB
00237 546405 SAD (331 /Y?
00240 741000 SKP /YES
00241 600244 JMP .+3
00242 443415 ISZ IAPI
00243 600251 JMP ISTA.1
00244 546406 SAD (316 /N?
00245 600251 JMP ISTA.1 /NO
00246 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
00247 004156 MES2
00250 600215 JMP ISTART
00251 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00252 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
00253 004160 MES3
00254 103574 JMS READ
00255 600251 JMP ISTA.1 /BAD INPUT, TRY AGAIN
00256 741200 SNA
00257 206407 LAC (300
00260 040211 DAC BR5TV /STORE BR5 TRAP VECTOR
00261 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00262 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
00263 004175 MES4
00264 103574 JMS READ
00265 600261 JMP ISTA.2
00266 741200 SNA
00267 206410 LAC (310
00270 040212 DAC BR7TV /STORE BR7 TRAP VECTOR
00271 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00272 143423 DZM THPCNT
.EJECT
    
```

```

/
00273 200203 START LAC GOOD
00274 546411 SAD (125252 /LOAD TIME?
00275 741000 SKP /YES
00276 600302 JMP STAR.1
00277 200214 LAC IDNE11 /GET PDP-11 DONE FUNCTION INDICATOR
00300 546412 SAD (177777
00301 600311 JMP STAR.2 /11 PROGRAM INDICATES READY TO TEST
00302 443423 STAR.1 ISZ THPCNT
00303 600273 JMP START
00304 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00305 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
00306 005161 MES37
00307 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00310 600273 JMP START
00311 140203 STAR.2 DZM GOOD
00312 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00313 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00314 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
00315 005125 MES35
00316 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00317 206413 LAC (52525
00320 040204 DAC BAD /INDICATE LOAD TIME TO 11
.EJECT
    
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/DETERMINE FROM AC SMS 15-17 AMOUNT OF COMMON MEM AND SET UP TABLE
/UF FIRST ADDRESS OF EACH 4K PAGE.
00321 104120 STAR.3 JMS NXMKC /CHECK FOR NEXM FLAG
00322 140201 DZM TEST
00323 140215 DZM IDNE15 /CLEAR PDP-15 DONE FUNCTION INDICATOR
00324 143432 DZM INIT
00325 443432 ISZ INIT
00326 140210 DZM ERRIND
00327 103227 JMS M11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
00330 206414 STAR.4 LAC (ADRTBL-1
00331 040017 DAC 17 /INIT PAGE POINTER
00332 220017 LAC+ 17
00333 043420 DAC ADRPNT /SET TO TEST FIRST 4K PAGE
00334 750004 LAS /GET CONTENTS OF AC SWITCHES
00335 103712 JMS RTHR /ROTATE AC RIGHT 3X
00336 103712 JMS RTHR /ROTATE AC RIGHT 3X
00337 103712 JMS RTHR /ROTATE AC RIGHT 3X
00340 506415 AND (7
00341 546416 SAD (5
00342 506417 AND (4
00343 546420 SAD (6
00344 506417 AND (4
00345 546415 SAD (7
00346 506417 AND (4 /5, 6 & 7 ARE ILLEGAL
00347 740001 CMA
00350 043423 DAC TMPCNT /INITIALIZE COUNT
00351 206421 LAC (ADRTBL
00352 040010 DAC 10
00353 443423 ISZ TMPCNT /8K?
00354 741000 SKP /NO
00355 600377 JMP STAR.5 /YES
00356 206422 LAC (20000
00357 060010 DAC+ 10
00360 443423 ISZ TMPCNT /12K?
00361 741000 SKP
00362 600377 JMP STAR.5
00363 206423 LAC (30000
00364 060010 DAC+ 10
00365 443423 ISZ TMPCNT /16K?
00366 741000 SKP
00367 600377 JMP STAR.5
00370 206424 LAC (40000
00371 060010 DAC+ 10
00372 443423 ISZ TMPCNT
00373 741000 SKP
00374 600377 JMP STAR.5
00375 206425 LAC (50000
00376 060010 DAC+ 10 /MAX 24K COMMON MEM
00377 777777 LAM +1
00400 000010 DAC+ 10 /IND END OF TABLE
.EJECT

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00401 206414 LAC (ADRTBL-1
00402 040017 DAC 17
00403 103054 JMS TSTSEL /SET UP TO DO NXT TST
00404 103027 JMS PAS
00405 200201 LAC TEST /GET TEST NUMBER
00406 343465 YAD TSTTBL
00407 043421 DAC TSTPNT
00410 223421 LAC+ TSTPNT
00411 506420 AND (7777
00412 546420 SAD (7777 /DONE LAST TEST?
00413 000433 JMP STAR.7 /YES
00414 043421 DAC TSTPNT
00415 140205 STAR.6 DZM ERRFLG /CLEAR ERROR FLAG
00416 104120 JMS NXMKC /CHECK FOR NEXM FLAG
00417 123421 JMS+ TSTPNT /EXECUTE SELECTED TEST
00420 200205 LAC ERRFLG /GET ERROR INDICATOR
00421 506412 AND (177777
00422 546412 SAD (177777
00423 000430 JMP +5
00424 750004 LAS /GET CONTENTS OF AC SWITCHES
00425 506427 AND (400
00426 740200 SZA /HLT AT END OF TEST?
00427 740040 HLT
00430 443437 ISZ PASIND
00431 000415 JMP STAR.6
00432 000330 JMP STAR.4
00433 140201 STAR.7 DZM TEST
00434 443424 ISZ PASCNT
00435 740000 NOP
00436 760207 LAM 207
00437 103742 JMS SPTY /TYPE CHAR REGARDLESS OF AC SW 3
00440 760207 LAM 207
00441 103742 JMS SPTY /TYPE CHAR REGARDLESS OF AC SW 3
00442 760207 LAM 207
00443 103742 JMS SPTY /TYPE CHAR REGARDLESS OF AC SW 3
00444 750004 LAS /GET CONTENTS OF AC SWITCHES
00445 506430 AND (10000
00446 741200 SNA
00447 000330 JMP STAR.4
00450 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00451 203424 LAC PASCNT
00452 104013 JMS OCT
00453 103716 JMS TYP
00454 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
00455 005622 MESS4
00456 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
00457 000330 JMP STAR.4
.EJECT

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/*****
/TST1. 15 WRITES IN LOWER 2K, 11 READS & CHECKS IT.
TST1 0
      LAC  ADRPNT  /GET FIRST ADDRESS OF CURRENT PAGE
      DAC  RWSA15  /STORE FIRST OPERATION ADDRESS FOR PDP-15
      DAC  RWSA11  /STORE FIRST OPERATION ADDRESS FOR PDP-11
      LAW  -4000
      JMS  IBUFF   /INITIALIZE BUFFER
      LAW  -1
      DAC  IDNE15  /INDICATE PDP-15 DONE FUNCTION
      LAC  RWSA15
      TAD  (-1
      DAC  10      /INIT ADDR POINTER FOR 15
      JMS  WRT2K   /WRITE ADDR INTO LOWER 2K OF PAGE
      JMS  I15W11  /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
      JMS  ERRCHK  /ERROR?
      JMS  TST1.A  /NO
      JMP  E1ROU   /TYPE TST #, ADDRESS, GOOD & BAD DATA
TST1.A JMS  PAGESL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
      JMP  TST1+1
      JMP  PERCHK  /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
/TST2. 15 WRITES IN UPPER 2K, 11 READS & CHECKS IT.
TST2 0
      LAC  ADRPNT  /GET FIRST ADDRESS OF CURRENT PAGE
      TAD  (4000   /MAKE FIRST ADDR OF UPPER 2K
      DAC  RWSA15  /STORE FIRST OPERATION ADDRESS FOR PDP-15
      DAC  RWSA11  /STORE FIRST OPERATION ADDRESS FOR PDP-11
      LAW  -4000
      JMS  IBUFF   /INITIALIZE BUFFER
      LAW  -1
      DAC  IDNE15  /INDICATE PDP-15 DONE FUNCTION
      LAC  RWSA15
      TAD  (-1
      DAC  10      /INIT ADDR POINTER FOR 15
      JMS  WRT2K   /WRITE ADDR INTO UPPER 2K OF PAGE
      JMS  I15W11  /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
      JMS  ERRCHK  /ERROR?
      JMS  TST2.A  /NO
      JMP  E1ROU   /TYPE TST #, ADDRESS, GOOD & BAD DATA
TST2.A JMS  PAGESL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
      JMP  TST2+1
      JMP  PERCHK  /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/TST3. 11 WRITES IN LOWER 2K, 15 READS & CHECKS IT.
TST3 0
      LAC  ADRPNT  /GET FIRST ADDRESS OF CURRENT PAGE
      DAC  RWSA11  /STORE FIRST OPERATION ADDRESS FOR PDP-11
      DAC  RWSA15  /STORE FIRST OPERATION ADDRESS FOR PDP-15
      LAW  -4000
      JMS  IBUFF   /INITIALIZE BUFFER
      TAD  RWSA15
      DAC  (-1
      JMS  I15W11  /INIT ADDR POINTER FOR 15
      JMS  READ2K  /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
      JMS  READ2K  /READ & CHECK 2K
      JMS  ERRCHK  /ERROR?
      JMS  TST3.A  /NO
      JMP  E1ROU   /TYPE TST #, ADDRESS, GOOD & BAD DATA
TST3.A JMS  PAGESL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
      JMP  TST3+1
      JMP  PERCHK  /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
/TST4. 11 WRITES IN UPPER 2K, 15 READS & CHECKS IT.
TST4 0
      LAC  ADRPNT  /GET FIRST ADDRESS OF CURRENT PAGE
      TAD  (4000   /MAKE FIRST ADDR OF UPPER 2K
      DAC  RWSA11  /STORE FIRST OPERATION ADDRESS FOR PDP-11
      DAC  RWSA15  /STORE FIRST OPERATION ADDRESS FOR PDP-15
      LAW  -4000
      JMS  IBUFF   /INITIALIZE BUFFER
      LAC  RWSA15
      TAD  (-1
      DAC  10      /INIT ADDR POINTER FOR 15
      JMS  I15W11  /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
      JMS  READ2K  /READ & CHECK 2K
      JMS  ERRCHK  /ERROR?
      JMS  TST4.A  /NO
      JMP  E1ROU   /TYPE TST #, ADDRESS, GOOD & BAD DATA
TST4.A JMS  PAGESL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
      JMP  TST4+1
      JMP  PERCHK  /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/TST5. 15 WRITES IN LOWER 2K WHILE 11 IS WRITING IN UPPER 2K, 11
/HEADS & CHECKS LOWER 2K WHILE 15 IS READING & CHECKING UPPER 2K.
TST5 0
00572 000000 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
00573 203420 DAC RNSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
00574 040206 TAD (4000 /MAKE FIRST ADDR OF UPPER 2K
00575 346432 DAC RNSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-11
00576 040207 LAC (-10000
00577 206433 JMS IBUFF /INITIALIZE BUFFER
00600 104106 LAW -1
00601 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
00602 040213 LAC RNSA15
00603 200206 TAD (-1
00604 346431 DAC 10 /INIT ADDR POINTER FOR 15
00605 040010 JMS MRT2K /MRT ADDR INTO LOWER 2K OF PAGE
00606 103362 JMS M11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
00607 103227 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
00610 203420 DAC RNSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-15
00611 040207 TAD (4000
00612 346432 DAC RNSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
00613 040206 LAW -1
00614 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
00615 040213 LAC RNSA15
00616 200206 TAD (-1
00617 346431 LAC 10 /INIT ADDR POINTER FOR 15
00620 040010 JMS READ2K /READ & CHECK UPPER 2K
00621 103373 JMS M11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
00622 103227 JMS ERRCHK /ERROR?
00623 102625 JMP TST5,A /NO
00624 000626 JMP E1ROU /TYPE TST #, ADDRESS, GOOD & BAD DATA
00625 000712 TST5.A JMS PAGESL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
00626 103173 JMP TST5+1
00627 000573 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
00630 002674
/*****
.EJECT

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/*****
/TST6. 11 WRITES IN LOWER 2K WHILE 15 IS WRITING IN UPPER 2K, 15
/HEADS & CHECKS LOWER 2K WHILE 11 IS READING & CHECKING UPPER 2K.
TST6 0
00631 000000 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
00632 203420 DAC RNSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-11
00633 040207 TAD (4000 /MAKE FIRST ADDR OF UPPER 2K
00634 346432 DAC RNSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
00635 040206 LAC (-10000
00636 206433 JMS IBUFF /INITIALIZE BUFFER
00637 104106 LAW -1
00640 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
00641 040213 LAC RNSA15
00642 200206 TAD (-1
00643 346431 DAC 10 /INIT ADDR POINTER FOR 15
00644 040010 JMS MRT2K /MRT ADDR INTO UPPER 2K OF PAGE
00645 103362 JMS M11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
00646 103227 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
00647 203420 DAC RNSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-15
00650 040206 TAD (4000
00651 346432 DAC RNSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-11
00652 040207 LAW -1
00653 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
00654 040213 LAC RNSA15
00655 200206 TAD (-1
00656 346431 DAC 10 /INIT ADDR POINTER FOR 15
00657 040010 JMS READ2K /READ & CHECK LOWER 2K
00660 103373 JMS M11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
00661 103227 JMS ERRCHK /ERROR?
00662 102625 JMP TST6,A /NO
00663 000665 JMP E1ROU /TYPE TST #, ADDRESS, GOOD & BAD DATA
00664 000712 TST6.A JMS PAGESL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
00665 103173 JMP TST6+1
00666 000632 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
00667 002674
/*****
.EJECT

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/*****
/TST7. 15 WRITES IN LOWER 2K, 11 HEADS & CHECKS IT WHILE 15 IS
/WRITING IN UPPER 2K.
TST7 0
00670 000000 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
00671 203420 DAC RWSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
00672 040206 DAC RWSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-11
00673 040207 DAC (-10000
00674 206433 JMS Ibuff /INITIALIZE BUFFER
00675 104100 LAW -1
00676 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
00677 040213 LAC RWSA15
00700 200206 TAD (-1
00701 346431 DAC 10 /INIT ADDR POINTER FOR 15
00702 040010 JMS WRT2K /WRT ADDR INTO LOWER 2K OF PAGE
00703 103362 LAC RWSA15
00704 200206 TAD (4000
00705 346432 DAC RWSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
00706 040206 TAD (-1
00707 346431 DAC 10
00710 040010 LAW -1
00711 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
00712 040213 JMS WRT2K /WRT UPPER 2K WHILE 11 IS READING
00713 103362 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
00714 103227 JMS ERRCHK /ERROR?
00715 102625 JMP TST7.A /NO
00716 000720 JMP E1R0U /TYPE TST #, ADDRESS, GOOD & BAD DATA
00717 002712 JMS PAGESEL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
00720 103173 TST7.A
00721 000671 JMP TST7+1
00722 002674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/TST10. 15 WRITES IN UPPER 2K, 11 READS & CHECKS IT WHILE 15 IS
/WRITING IN LOWER 2K.
TST10 0
00723 000000 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
00724 203420 TAD (4000
00725 346432 DAC RWSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
00726 040206 DAC RWSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-11
00727 040207 DAC (-10000
00730 206433 JMS Ibuff /INITIALIZE BUFFER
00731 104100 LAW -1
00732 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
00733 040213 LAC RWSA15
00734 200206 TAD (-1
00735 346431 DAC 10 /INIT ADDR POINTER FOR 15
00736 040010 JMS WRT2K /WRT ADDR INTO UPPER 2K OF PAGE
00737 103362 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
00740 203420 DAC RWSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
00741 040206 TAD (-1
00742 346431 DAC 10
00743 040010 LAW -1
00744 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
00745 040213 JMS WRT2K /WRT LOWER 2K WHILE 11 IS READING
00746 103362 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
00747 103227 JMS ERRCHK /ERROR?
00750 102625 JMP TST10A /NO
00751 000753 JMP E1R0U /TYPE TST #, ADDRESS, GOOD & BAD DATA
00752 002712 JMS PAGESEL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
00753 103173 TST10A
00754 000724 JMP TST10+1
00755 002674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/TST11. 11 WRITES IN LOWER 2K, 15 READS & CHECKS IT WHILE 11 IS
/WRITING IN UPPER 2K.
TST11  0
00756  000000
00757  203420  LAC  ADRPNT  /GET FIRST ADDRESS OF CURRENT PAGE
00760  040207  DAC  RNSA11  /STORE FIRST OPERATION ADDRESS FOR PDP-11
00761  040206  DAC  RNSA15  /STORE FIRST OPERATION ADDRESS FOR PDP-15
00762  206433  LAC  (-10000
00763  104106  JMS  Ibuff  /INITIALIZE BUFFER
00764  777777  LAM  -1
00765  040213  DAC  IDNE15  /INDICATE PDP-15 DONE FUNCTION
00766  200206  LAC  RNSA15
00767  346431  TAD  (-1
00770  040010  DAC  10
00771  103227  JMS  N11     /INIT ADDR POINTER FOR 15
00772  203420  LAC  ADRPNT  /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
00773  346432  TAD  (4000  /GET FIRST ADDRESS OF CURRENT PAGE
00774  040207  DAC  RNSA11  /STORE FIRST OPERATION ADDRESS FOR PDP-11
00775  777777  LAM  -1
00776  040213  DAC  IDNE15  /INDICATE PDP-15 DONE FUNCTION
00777  103373  JMS  READ2K /READ LOWER 2K WHILE 11 IS WRITING UPPER 2K
01000  103227  JMS  N11     /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
01001  102625  JMS  ERRCHK  /ERROR?
01002  001004  JNP  TST11A  /NO
01003  002712  JNP  E1ROU   /TYPE TST #, ADDRESS, GOOD & BAD DATA
01004  103173  TST11A JMS  PAGESEL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
01005  000757  JNP  TST11+1
01006  002674  JNP  PERCHK  /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/TST12. 11 WRITES IN UPPER 2K, 15 READS & CHECKS IT WHILE 11 IS
/WRITING IN LOWER 2K.
TST12  0
01007  000000
01010  203420  LAC  ADRPNT  /GET FIRST ADDRESS OF CURRENT PAGE
01011  346432  TAD  (4000
01012  040207  DAC  RNSA11  /STORE FIRST OPERATION ADDRESS FOR PDP-11
01013  040206  DAC  RNSA15  /STORE FIRST OPERATION ADDRESS FOR PDP-15
01014  206433  LAC  (-10000
01015  104106  JMS  Ibuff  /INITIALIZE BUFFER
01016  777777  LAM  -1
01017  040213  DAC  IDNE15  /INDICATE PDP-15 DONE FUNCTION
01020  200206  LAC  RNSA15
01021  346431  TAD  (-1
01022  040010  DAC  10
01023  103227  JMS  N11     /INIT ADDR POINTER FOR 15
01024  203420  LAC  ADRPNT  /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
01025  040207  DAC  RNSA11  /GET FIRST ADDRESS OF CURRENT PAGE
01026  777777  LAM  -1
01027  040213  DAC  IDNE15  /STORE FIRST OPERATION ADDRESS FOR PDP-11
01030  103373  JMS  READ2K /INDICATE PDP-15 DONE FUNCTION
01031  103227  JMS  READ2K /READ UPPER 2K WHILE 11 IS WRITING LOWER 2K
01032  102625  JMS  N11     /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
01033  001035  JMS  ERRCHK  /ERROR?
01034  002712  JNP  TST12A  /NO
01035  103173  JNP  E1ROU   /TYPE TST #, ADDRESS, GOOD & BAD DATA
01036  001010  TST12A JMS  PAGESEL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
01037  002674  JNP  TST12+1
01037  002674  JNP  PERCHK  /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/TST13, 11 WRITES ALL ONES IN LOW ORDER BYTES OF LOWER 2K WHILE 15
/IS WRITING -1 IN UPPER 2K, 15 READS & CHECKS LOWER 2K WHILE 11 IS
/READING & CHECKING LOW ORDER BYTES IN UPPER 2K.
TST13 0
01040 000000 LAW -10000 /INITIALIZE COUNT
01041 770000 DAC CNT3 /GET FIRST ADDRESS OF CURRENT PAGE
01042 043451 LAC ADRPNT /STORE FIRST OPERATION ADDRESS FOR PDP-11
01043 203420 DAC RWSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-15
01044 040207 TAD (4000
01045 346432 DAC RWSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
01046 040206 LAC RWSA11
01047 200207 TAD (-1
01050 346431 DAC 10 /INIT BUFF FOR 11
01051 040010 DZM* 10
01052 160010 ISZ CNT3
01053 443451 JMP -2
01054 601052 LAW -1 /INDICATE PDP-15 DONE FUNCTION
01055 777777 DAC IDNE15
01056 040213 LAC RWSA15
01057 200206 TAD (-1
01060 346431 DAC 10 /INITIALIZE COUNT
01061 040010 LAW -4000
01062 774000 DAC WCNT
01063 043417 LAW -1
01064 777777 DAC* 10
01065 060010 ISZ WCNT
01066 443417 JMP -3
01070 103227 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
01071 203420 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
01072 040206 DAC RWSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
01073 346432 TAD (4000
01074 040207 DAC RWSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-11
01075 777777 LAW -1 /INDICATE PDP-15 DONE FUNCTION
01076 040213 DAC IDNE15
01077 200206 LAC RWSA15
01100 346431 TAD (-1
01101 040010 DAC 10
01102 774000 LAW -4000 /INITIALIZE COUNT
01103 043416 DAC RCNT
01104 220010 TST13A LAC* 10
01105 043422 DAC TBAD
01106 546434 SAD (377 /DATA CORRECT?
01107 601116 JMP TST13B /YES
01110 206434 LAC (377
01111 043433 DAC TGOOD
01112 777777 LAW -1
01113 440210 DAC EKRIND /SET PREVIOUS ERROR INDICATOR
01114 103011 JMS EFCHK /CHECK ERRFLG TO DETERMINE WHETHER OR NOT TO STORE DATA
01115 601120 JMP TST13C
01116 443416 TST13B ISZ RCNT /DONE?
01117 601104 JMP TST13A /NO
01120 103227 TST13C JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
01121 102620 JMS ERRCHK /ERROR?
01122 601124 JMP TST13D /NO

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01123 602712 JMP EIRRU /TYPE TST #, ADDRESS, GOOD & BAD DATA
01124 103173 TST13D JMS PAGSEL /SEL NXT MEM PAGE FOR TESTING (IF ANY LEFT)
01125 601041 JMP TST13+1
01126 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/TST14. 11 WRITES ALL ONES IN HIGH ORDER BYTES OF LOWER 2K WHILE
/15 IS WRITING -1 IN UPPER 2K, 15 READS & CHECKS LOWER 2K WHILE 11 IS
/READING & CHECKING HIGH ORDER BYTES IN UPPER 2K.
TST14 0
#1127 000000 TST14 0
#1130 772000 LAM -10000
#1131 043451 DAC CNT3 /INITIALIZE COUNT
#1132 203420 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
#1133 040207 DAC RWSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-11
#1134 346432 TAD (4000
#1135 040206 DAC RWSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
#1136 200207 LAC RWSA11
#1137 346431 TAD (-1
#1140 040010 DAC 10
#1141 160010 DZM+ 10 /INIT BUFF FOR 11
#1142 443451 ISZ CNT3
#1143 601141 JMP ,=-2
#1144 777777 LAM -1
#1145 040213 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
#1146 200206 LAC RWSA15
#1147 346431 TAD (-1
#1150 040010 DAC 10
#1151 774000 LAM =4000
#1152 043417 DAC WCNT /INITIALIZE COUNT
#1153 777777 LAM -1
#1154 060010 DAC+ 10
#1155 443417 ISZ WCNT
#1156 601153 JMP ,=-3
#1157 103227 JMS M11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
#1160 203420 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
#1161 040206 DAC RWSA15 /STORE FIRST OPERATION ADDRESS FOR PDP-15
#1162 346432 TAD (4000
#1163 040207 DAC RWSA11 /STORE FIRST OPERATION ADDRESS FOR PDP-11
#1164 777777 LAM -1
#1165 040213 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
#1166 200206 LAC RWSA15
#1167 346431 TAD (-1
#1170 040010 DAC 10
#1171 774000 LAM =4000
#1172 043416 DAC RCNT /INITIALIZE COUNT
#1173 220010 TST14A LAC+ 10
#1174 043422 DAC T0AD
#1175 546435 SAD (177400 /DATA CORRECT?
#1176 601205 JMP TST14B /YES
#1177 206435 LAC (177400
#1200 043433 DAC T000
#1201 777777 LAM -1
#1202 040210 DAC ERRIND /SET PREVIOUS ERROR INDICATOR
#1203 103011 JMS EFCHK /CHECK ERRFLG TO DETERMINE WHETHER OR NOT TO STORE DATA
#1204 601207 JMP TST14C
#1205 443416 TST14B ISZ RCNT /DONE?
#1206 601173 JMP TST14A /NO
#1207 103227 TST14C JMS M11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
#1210 102625 JMS ERRCNK /ERROR?
#1211 601213 JMP TST14D

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#1212 602712 JMP E1R0U /TYPE TST #, ADDRESS, GOOD & BAD DATA
#1213 103173 TST14D JMS PAGESL /SEL NXT MEN PAGE FOR TESTING (IF ANY LEFT)
#1214 601130 JMP TST14+1
#1215 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/TST15. TEST FOR TCBP FLAG TO BE SET BY LIOR.
01216 000000 TST15 0
01217 406370 XCT LIOR /LOAD TCBP, SET TCBP FLG IN PDP-11
01220 103222 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01221 102625 JMS ERRCHK /ERROR?
01222 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01223 102736 JMS E2RQU /TYPE TST # AND AN ERROR DESCRIPTION
01224 004222 MES6
/*****
/TST16. TEST FOR DATI FROM PDP-11 LOC 167764 TO CLEAR TCBP FLG.
01225 000000 TST16 0
01226 406370 XCT LIOR /LOAD TCBP, SET TCBP FLG IN PDP-11
01227 103222 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01230 102625 JMS ERRCHK /ERROR?
01231 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01232 102736 JMS E2RQU /TYPE TST # AND AN ERROR DESCRIPTION
01233 004236 MES7
/*****
/TST17. TEST FOR DATI FROM PDP-11 LOC 167774 TO NOT CLEAR TCBP FLG.
01234 000000 TST17 0
01235 406370 XCT LIOR /LOAD TCBP, SET TCBP FLG IN PDP-11
01236 103222 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01237 102625 JMS ERRCHK /ERROR?
01240 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01241 102736 JMS E2RQU /TYPE TST # AND AN ERROR DESCRIPTION
01242 005203 MES38
/*****
/TST20. TEST FOR TCBP ACCEPTED WITH SIOA IOT.
01243 000000 TST20 0
01244 406366 XCT SIOA /SKIP?
01245 741000 SKP /NO
01246 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01247 102625 JMS IERR /INDICATE AN ERROR!
01250 102625 JMS ERRCHK /ERROR?
01251 740000 NOP
01252 102736 JMS E2RQU /TYPE TST # AND AN ERROR DESCRIPTION
01253 004260 MES8
/*****
/TST21. CLEAR TCBP ACCEPTED FLG WITH CIOD IOT & TEST SIOA FOR NO SKIP.
01254 000000 TST21 0
01255 406367 XCT CIOD /CLEAR TCBP ACCEPTED FLG
01256 406366 XCT SIOA /NO SKIP?
01257 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01260 102625 JMS IERR /INDICATE AN ERROR!
01261 102625 JMS ERRCHK /ERROR?
01262 740000 NOP
01263 102736 JMS E2RQU /TYPE TST # AND AN ERROR DESCRIPTION
01264 004306 MES9
/*****
.EJECT

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/*****
/TST22. TEST FOR TCBP ACCEPTED TO BE SET BY DOING DATI TO LOC 167764
/IN PDP-11.
01265 000000 TST22 0
01266 406367 XCT CIOD /CLEAR TCBP ACCEPTED FLG
01267 406370 XCT LIOR /LOAD TCBP, SET TCBP FLG IN PDP-11
01270 103222 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01271 406366 XCT SIOA /SKIP?
01272 741000 SKP /NO
01273 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01274 102625 JMS IERR /INDICATE AN ERROR!
01275 102625 JMS ERRCHK /ERROR?
01276 740000 NOP
01277 102736 JMS E2RQU /TYPE TST # AND AN ERROR DESCRIPTION
01300 006130 MES56
/*****
/TST23. TEST FOR TCBP ACCEPTED NOT TO BE SET BY DOING DATI TO
/LOC 167774 IN PDP-11.
01301 000000 TST23 0
01302 406367 XCT CIOD /CLEAR TCBP ACCEPTED FLG
01303 406370 XCT LIOR /LOAD TCBP, SET TCBP FLG IN PDP-11
01304 103222 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01305 406366 XCT SIOA /NO SKIP?
01306 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01307 102625 JMS IERR /INDICATE AN ERROR!
01310 102625 JMS ERRCHK /ERROR?
01311 740000 NOP
01312 102736 JMS E2RQU /TYPE TST # AND AN ERROR DESCRIPTION
01313 006165 MES67
/*****
.EJECT

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/*****
/TST24. TESTS FOR CORRECT TRANSMISSION OF TCBP FROM 15 TO 11.
TST24  M
01314  #00000
01315  143433
01316  777777
01317  #40213
01320  406367
01321  203433
01322  406370
01323  744010
01324  #40203
01325  200214
01326  546412
01327  601364
01330  406366
01331  601325
01332  200200
01333  744020
01334  742020
01335  340207
01336  540203
01337  601355
01340  #40204
01341  102620
01342  102625
01343  740000
01344  102770
01345  200203
01346  104013
01347  103710
01350  200204
01351  104013
01352  103643
01353  103753
01354  602643
01355  443433
01356  203433
01357  246436
01360  741000
01361  601320
01362  777777
01363  #40213
01364  602674

TST24A  XCT C100 /INDICATE PDP-15 DONE FUNCTION
        LAC TGOOD /CLEAR TCBP ACCEPTED FLG
        XCT LIOR /LOAD TCBP, SET TCBP FLG IN PDP-11
        CLLIRAL /MAKE AN 11 ADDRESS
        DAC GOOD /GET PDP-11 DONE FUNCTION INDICATOR
        LAC IDNE11 (177777)
        SAD /CORRECT?
        JMP TST24C /YES
        XCT S10A /NO
        JMP _=4 /INDICATE AN ERROR
        LAC RNSA15 /ERROR?
        CLLIRAR /MOVE INTO CORRECT POSITION
        RTR /GET BITS 2-17
        TAD RNSA11 /CORRECT?
        SAD GOOD /YES
        JMP TST24B /NO
        DAC BAD /INDICATE AN ERROR
        JMS IERR /ERROR?
        JMS ERRCHK /TYPE "TST- GOOD - BAD" HEADER
        HDR2
        LAC GOOD
        JMS OCT
        JMS TYP
        LAC BAD
        JMS OCT
        JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
        JMS PNETST
        JMP BP
TST24B  ISZ TGOOD /INC SOFT TCBP, DONE?
        LAC TGOOD
        SAD (400000)
        SKP /DONE TEST?
        JMP TST24A /NO
        LAC IDNE15
        JMS PERCHK /INDICATE PDP-15 DONE FUNCTION
        /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/TST25. TEST FOR API 0 DONE FLG TO BE SET.
TST25  0
01365  #00000
01366  103222
01367  102625
01370  602674
01371  102736
01372  #04342

JMS I15M11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
JMS ERRCHK /ERROR?
JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
MES11

/*****
/TST26. TEST FOR API 1 DONE FLG TO BE SET.
TST26  0
01373  #00000
01374  103222
01375  102625
01376  602674
01377  102736
01400  #04356

JMS I15M11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
JMS ERRCHK /ERROR?
JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
MES12

/*****
/TST27. TEST FOR API 2 DONE FLAG TO BE SET.
TST27  0
01401  #00000
01402  103222
01403  102625
01404  602674
01405  102736
01406  #04372

JMS I15M11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
JMS ERRCHK /ERROR?
JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
MES13

/*****
/TST30. TEST FOR API 3 DONE FLAG TO BE SET.
TST30  0
01407  #00000
01410  103222
01411  102625
01412  602674
01413  102736
01414  #04406

JMS I15M11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
JMS ERRCHK /ERROR?
JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
MES14

/*****
/TST31. TEST FOR API DONE FLG TO BE SET.
TST31  0
01415  #00000
01416  103222
01417  102625
01420  602674
01421  102736
01422  #04422

JMS I15M11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
JMS ERRCHK /ERROR?
JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
MES15
/*****
.EJECT

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/*****
/TST32. TEST FOR SAPI0 TO SKIP.
TST32 0
01423 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01424 103222 XCT SAPI0 /SKIP ON API LEVEL 0 FLG SET
01425 406373 SKP /CHECK FOR A PREVIOUS ERROR CONDITION
01426 741000 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01427 602674 JMS IERR /INDICATE AN ERROR!
01430 102620 JMS ERRCHK /ERROR?
01431 102625 NOP
01432 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01433 102736 MES29
01434 005020

/*****
/TST33. TEST FOR SAPI1 TO SKIP.
TST33 0
01435 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01436 103222 XCT SAPI1 /SKIP ON API LEVEL 1 FLG SET
01437 406374 SKP /CHECK FOR A PREVIOUS ERROR CONDITION
01440 741000 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01441 602674 JMS IERR /INDICATE AN ERROR!
01442 102620 JMS ERRCHK /ERROR?
01443 102625 NOP
01444 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01445 102736 MES30
01446 005030

/*****
/TST34. TEST FOR SAPI2 TO SKIP.
TST34 0
01447 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01450 103222 XCT SAPI2 /SKIP ON API LEVEL 2 FLG SET
01451 406375 SKP /CHECK FOR A PREVIOUS ERROR CONDITION
01452 741000 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01453 602674 JMS IERR /INDICATE AN ERROR!
01454 102620 JMS ERRCHK /ERROR?
01455 102625 NOP
01456 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01457 102736 MES31
01460 005040

/*****
/TST35. TEST FOR SAPI3 TO SKIP.
TST35 0
01461 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01462 103222 XCT SAPI3 /SKIP ON API LEVEL 3 FLG SET
01463 406376 SKP /CHECK FOR A PREVIOUS ERROR CONDITION
01464 741000 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01465 602674 JMS IERR /INDICATE AN ERROR!
01466 102620 JMS ERRCHK /ERROR?
01467 102625 NOP
01470 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01471 102736 MES32
01472 005050

.EJECT

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/*****
/TST36. TEST SAPI0 FOR NO SKIP.
TST36 0
01473 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01474 103222 XCT SAPI0 /SKIP ON API LEVEL 0 FLG SET
01475 406373 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01476 602674 JMS IERR /INDICATE AN ERROR!
01477 102620 JMS ERRCHK /ERROR?
01500 102625 NOP
01501 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01502 102736 MES25
01503 004700

/*****
/TST37. TEST SAPI1 FOR NO SKIP.
TST37 0
01504 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01505 103222 XCT SAPI1 /SKIP ON API LEVEL 1 FLG SET
01506 406374 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01507 602674 JMS IERR /INDICATE AN ERROR!
01510 102620 JMS ERRCHK /ERROR?
01511 102625 NOP
01512 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01513 102736 MES26
01514 004724

/*****
/TST40. TEST SAPI2 FOR NO SKIP.
TST40 0
01515 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01516 103222 XCT SAPI2 /SKIP ON API LEVEL 2 FLG SET
01517 406375 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01520 602674 JMS IERR /INDICATE AN ERROR!
01521 102620 JMS ERRCHK /ERROR?
01522 102625 NOP
01523 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01524 102736 MES27
01525 004750

/*****
/TST41. TEST SAPI3 FOR NO SKIP.
TST41 0
01526 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01527 103222 XCT SAPI3 /SKIP ON API LEVEL 3 FLG SET
01530 406376 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01531 602674 JMS IERR /INDICATE AN ERROR!
01532 102620 JMS ERRCHK /ERROR?
01533 102625 NOP
01534 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01535 102736 MES28
01536 004774

.EJECT

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/*****
/TST42. TEST CAPI0 TO CLEAR API0 FLG.
TST42  0
01537 000000
01540 103222      JMS      I15W11      /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01541 406377      XCT      CAPI0        /CLR FLG
01542 103354      JMS      TAPI          /TEST API?
01543 001556      JMP      TST42A       /NO
01544 705512      RPL                      /HEAD API STATUS
01545 040204      DAC      BAD
01546 546437      SAD      (70000      /0 AND ONLY 0 CLEARED?
01547 602674      JMP      PERCHK      /CHECK FOR A PREVIOUS ERROR CONDITION
01550 102620      JMS      IERR        /INDICATE AN ERROR!
01551 102625      JMS      ERRCHK      /ERROR?
01552 740000      NOP
01553 206437      LAC      (70000
01554 040203      DAC      GOOD
01555 602747      JMP      E3ROU       /TYPE TST #, GOOD AND BAD DATA
01556 406373      TST42A XCT      SAPI0      /0 CLRED?
01557 602674      JMP      PERCHK      /YES
01560 102620      JMS      IERR
01561 102625      JMS      ERRCHK
01562 740000      NOP
01563 102736      JMS      E2ROU
01564 004552      MES20
/*****
/*****
/TST43. TEST CAPI1 TO CLEAR API1 FLG.
TST43  0
01565 000000
01566 103222      JMS      I15W11      /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01567 406400      XCT      CAPI1        /CLR FLG
01570 103354      JMS      TAPI          /TEST API?
01571 601604      JMP      TST43A       /NO
01572 705512      RPL                      /HEAD API STATUS
01573 040204      DAC      BAD
01574 546440      SAD      (130000     /1 AND ONLY 1 CLEARED?
01575 602674      JMP      PERCHK      /CHECK FOR A PREVIOUS ERROR CONDITION
01576 102620      JMS      IERR        /INDICATE AN ERROR!
01577 102625      JMS      ERRCHK      /ERROR?
01600 740000      NOP
01601 206440      LAC      (130000
01602 040203      DAC      GOOD
01603 602747      JMP      E3ROU       /TYPE TST #, GOOD AND BAD DATA
01604 406374      TST43A XCT      SAPI1      /1 CLRED?
01605 602674      JMP      PERCHK      /YES
01606 102620      JMS      IERR
01607 102625      JMS      ERRCHK
01610 740000      NOP
01611 102736      JMS      E2ROU
01612 004612      MES22
/*****
.EJECT

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/*****
/TST44. TEST CAPI2 TO CLEAR API2 FLG.
TST44  0
01613 000000
01614 103222      JMS      I15W11      /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01615 406401      XCT      CAPI2        /CLR FLG
01616 103354      JMS      TAPI          /TEST API?
01617 601632      JMP      TST44A       /NO
01620 705512      RPL                      /HEAD API STATUS
01621 040204      DAC      BAD
01622 546441      SAD      (150000     /2 AND ONLY 2 CLEARED?
01623 602674      JMP      PERCHK      /CHECK FOR A PREVIOUS ERROR CONDITION
01624 102620      JMS      IERR        /INDICATE AN ERROR!
01625 102625      JMS      ERRCHK      /ERROR?
01626 740000      NOP
01627 206441      LAC      (150000
01630 040203      DAC      GOOD
01631 602747      JMP      E3ROU       /TYPE TST #, GOOD AND BAD DATA
01632 406375      TST44A XCT      SAPI2      /2 CLRED?
01633 602674      JMP      PERCHK      /YES
01634 102620      JMS      IERR
01635 102625      JMS      ERRCHK
01636 740000      NOP
01637 102736      JMS      E2ROU
01640 005506      MES49
/*****
.EJECT

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/*****
/IST45. TEST CAPI3 TO CLEAR API3 FLG.
TST45 0
01641 000000 JMS I15W11 /INDICATE POP-15 DONE FUNCTION & WAIT FOR POP-11
01642 103222 XCT CAPI3 /CLR FLG
01643 406442 JMS TAPI /TEST API?
01644 103354 JMS TAPI /NO
01645 001660 JMP TST45A /HEAD API STATUS
01646 705512 RPL /
01647 040204 DAC BAD
01648 546442 SAD (160000 /3 AND ONLY 3 CLEARED?
01649 002674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01650 102620 JMS IERR /INDICATE AN ERROR!
01651 102625 JMS ERRCHK /ERROR?
01652 740000 NOP
01653 206442 LAC (160000
01654 040203 DAC GOOD
01655 002747 JMP E3ROU /TYPE TST #, GOOD AND BAD DATA
01656 406376 TST45A XCT SAPI3 /3 CLRED?
01657 002674 JMP PERCHK /YES
01658 102620 JMS IERR
01659 102625 JMS ERRCHK
01660 740000 NOP
01661 102736 JMS E2ROU
01662 005153 MES68
/*****
/IST46. TEST FOR DR15 INT ENABLE SET USING RDRS IOT.
TST46 0
01667 000000 XCT RDRS
01668 406371 AND (1
01669 506443 SZL /INT ENABLE SET?
01670 740200 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01671 002674 JMS IERR /INDICATE AN ERROR!
01672 102620 JMS ERRCHK /ERROR?
01673 740000 NOP
01674 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01675 005153 MES33
/*****
.EJECT

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/*****
/IST47. TEST FOR DR15 INT ENABLE BEING CLEARED BY LDRS IOT.
TST47 0
01701 000000 CLA
01702 750000 XCT LDRS /CLR INT ENABLE
01703 406372 XCT RDRS /READ DR STAT
01704 406371 SNA /INT ENABLE CLR?
01705 741200 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01706 002674 JMS IERR /INDICATE AN ERROR!
01707 102620 JMS ERRCHK /ERROR?
01708 102625 NOP
01709 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01710 102736 MES34
01711 005153 /*****
/IST50. TEST FOR DR15 INT ENABLE BEING SET BY LDRS IOT.
TST50 0
01714 000000 LAC (1
01715 206443 XCT LDRS /SET INT ENABLE
01716 406372 XCT RDRS /READ DR STAT
01717 406371 SAD (1 /INT ENABLE SET?
01718 546443 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01719 002674 JMS IERR /INDICATE AN ERROR!
01720 102620 JMS ERRCHK /ERROR?
01721 740000 NOP
01722 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01723 004435 MES16
/*****
/IST51. TEST FOR CORRECT API LEVEL REQUEST WHEN 11 INDICATES LEVEL 0.
TST51 0
01727 000000 JMS TAPI /DETERMINE WHETHER OR NOT TO TEST API
01728 103354 JMP* TST51
01729 021727 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR POP-11
01730 103222 RPL /HEAD API STATUS
01731 705512 DAC BAD
01732 040204 SAD (100000 /0 REQUEST, ONE AND ONLY?
01733 546444 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01734 002674 JMS IERR /INDICATE AN ERROR!
01735 102620 JMS ERRCHK /ERROR?
01736 740000 NOP
01737 206444 LAC (100000
01738 040203 DAC GOOD
01739 002747 JMP E3ROU /TYPE TST #, GOOD AND BAD DATA
/*****
/IST52. TEST FOR API LEVEL 0 DONE FLG (ONLY) TO CLR.
TST52 0
01745 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR POP-11
01746 103222 JMS ERRCHK /ERROR?
01747 102625 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
01748 002674 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
01749 102736 MES17
01750 004453 /*****
.EJECT

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/*****
/TST53. TEST FOR CORRECT API LEVEL REQUEST WHEN 11 INDICATES LEVEL 1.
TST53  0
01753  000000      JMS      TAPI      /DETERMINE WHETHER OR NOT TO TEST API
01754  103354      JMP*     TST53
01755  021753      JMS      I15M11   /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01756  103222      RPL      /READ API STATUS
01757  705512
01760  040204      DAC      BAD
01761  546424      SAD      (40000   /3 REQUEST, ONE AND ONLY?
01762  602674      JMP      PERCHK   /CHECK FOR A PREVIOUS ERROR CONDITION
01763  102620      JMS      IERR     /INDICATE AN ERROR!
01764  102625      JMS      ERRCHK   /ERROR?
01765  740000      NOP
01766  206424      LAC      (40000
01767  040203      DAC      GOOD
01770  602747      JMP      E3ROU    /TYPE TST #, GOOD AND BAD DATA

/*****
/TST54. TEST FOR API LEVEL 1 DONE FLG (ONLY) TO CLR.
TST54  0
01771  000000      JMS      I15M11   /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
01772  103222      JMS      ERRCHK   /ERROR?
01773  102625      JMP      PERCHK   /CHECK FOR A PREVIOUS ERROR CONDITION
01774  602674      JMS      E2ROU    /TYPE TST # AND AN ERROR DESCRIPTION
01775  102736
01776  004524      MES19

/*****
/TST55. TEST FOR CORRECT API LEVEL REQUEST WHEN 11 INDICATES LEVEL 2.
TST55  0
01777  000000      JMS      TAPI      /DETERMINE WHETHER OR NOT TO TEST API
02000  103354      JMP*     TST55
02001  621777      JMS      I15M11   /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02002  103222      RPL      /READ API STATUS
02003  705512
02004  040204      DAC      BAD
02005  546422      SAD      (20000   /2 REQUEST, ONE AND ONLY?
02006  602674      JMP      PERCHK   /CHECK FOR A PREVIOUS ERROR CONDITION
02007  102620      JMS      IERR     /INDICATE AN ERROR!
02010  102625      JMS      ERRCHK   /ERROR?
02011  740000      NOP
02012  206422      LAC      (20000
02013  040203      DAC      GOOD
02014  602747      JMP      E3ROU    /TYPE TST #, GOOD AND BAD DATA

/*****
/TST56. TEST FOR API LEVEL 2 DONE FLG (ONLY) TO CLR.
TST56  0
02015  000000      JMS      I15M11   /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02016  103222      JMS      ERRCHK   /ERROR?
02017  102625      JMP      PERCHK   /CHECK FOR A PREVIOUS ERROR CONDITION
02020  602674      JMS      E2ROU    /TYPE TST # AND AN ERROR DESCRIPTION
02021  102736
02022  004564      MES21

/*****
.EJECT

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/*****
/TST57. TEST FOR CORRECT API LEVEL REQUEST WHEN 11 INDICATES LEVEL 3.
TST57  0
02023  000000      JMS      TAPI      /DETERMINE WHETHER OR NOT TO TEST API
02024  103354      JMP*     TST57
02025  022023      JMS      I15M11   /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02026  103222      RPL      /READ API STATUS
02027  705512
02030  040204      DAC      BAD
02031  546430      SAD      (10000   /3 REQUEST, ONE AND ONLY?
02032  602674      JMP      PERCHK   /CHECK FOR A PREVIOUS ERROR CONDITION
02033  102620      JMS      IERR     /INDICATE AN ERROR!
02034  102625      JMS      ERRCHK   /ERROR?
02035  740000      NOP
02036  206430      LAC      (10000
02037  040203      DAC      GOOD
02040  602747      JMP      E3ROU    /TYPE TST #, GOOD AND BAD DATA

/*****
/TST60. TEST FOR API LEVEL 3 DONE FLG (ONLY) TO CLR.
TST60  0
02041  000000      JMS      I15M11   /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02042  103222      JMS      ERRCHK   /ERROR?
02043  102625      JMP      PERCHK   /CHECK FOR A PREVIOUS ERROR CONDITION
02044  602674      JMS      E2ROU    /TYPE TST # AND AN ERROR DESCRIPTION
02045  102736
02046  004624      MES23

/*****
/TST61. TEST FOR API DONE FLAG TO BE CLR WHEN API LEVEL 0
/HAS A REQUEST PENDING.
TST61  0
02047  000000      JMS      I15M11   /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02050  103222      JMS      ERRCHK   /ERROR?
02051  102625      JMP      PERCHK   /CHECK FOR A PREVIOUS ERROR CONDITION
02052  602674      JMS      E2ROU    /TYPE TST # AND AN ERROR DESCRIPTION
02053  102736
02054  004652      MES24

/*****
/TST62. TEST FOR API DONE FLAG TO BE CLR WHEN API LEVEL 1
/HAS A REQUEST PENDING.
TST62  0
02055  000000      JMS      I15M11   /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02056  103222      JMS      ERRCHK   /ERROR?
02057  102625      JMP      PERCHK   /CHECK FOR A PREVIOUS ERROR CONDITION
02060  602674      JMS      E2ROU    /TYPE TST # AND AN ERROR DESCRIPTION
02061  102736
02062  005375      MES45

/*****
/TST63. TEST FOR API DONE FLAG TO BE CLR WHEN API LEVEL 2
/HAS A REQUEST PENDING.
TST63  0
02063  000000      JMS      I15M11   /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02064  103222      JMS      ERRCHK   /ERROR?
02065  102625      JMP      PERCHK   /CHECK FOR A PREVIOUS ERROR CONDITION
02066  602674      JMS      E2ROU    /TYPE TST # AND AN ERROR DESCRIPTION
02067  102736
02070  005423      MES46

/*****
.EJECT

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/*****
/TST64. TEST FOR API DONE FLAG TO BE CLR WHEN API LEVEL 3
/HAS A REQUEST PENDING.
TST64 0
02071 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02072 103222 JMS ERRCHK /ERROR?
02073 102625 JMS PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02074 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02075 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02076 005451 MES347
/*****
/TST65. TEST API DONE INT ENABLE TO SET.
TST65 0
02107 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02108 103222 JMS ERRCHK /ERROR?
02109 102625 JMS PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02110 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02111 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02112 005240 MES39
/*****
/TST66. TEST API DONE INT ENABLE TO CLEAR.
TST66 0
02105 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02106 103222 JMS ERRCHK /ERROR?
02107 102625 JMS PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02110 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02111 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02112 005240 MES40
/*****
/TST67. CLEAR API DONE ENABLE AND TEST FOR NO PDP-11 INTERRUPT
/FROM API DONE FLAG.
TST67 0
02113 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02114 103222 JMS ERRCHK /ERROR?
02115 102625 JMS PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02116 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02117 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02120 005347 MES44
/*****
/TST70. CLEAR TCBP ENABLE AND TEST FOR NO PDP-11 INTERRUPT
/FROM TCBP FLAG.
TST70 0
02121 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02122 103222 XCT LIOR /LOAD TCBP, SET TCBP FLG IN PDP-11
02123 406370 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02124 103222 JMS ERRCHK /ERROR?
02125 102625 JMS PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02126 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02127 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02130 005321 MES43
/*****
.EJECT

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/*****
/TST71. TEST FOR API DONE TO CAUSE A PDP-11 INT TO CORRECT VECTOR
/ADDRESS.
TST71 0
02131 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02132 103222 JMS ERRCHK /ERROR?
02133 102625 JMS PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02134 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02135 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02136 005256 MES41
/*****
/TST72. TEST FOR TCBP TO CAUSE A PDP-11 INT TO CORRECT VECTOR
/ADDRESS.
TST72 0
02137 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02140 103222 XCT LIOR /LOAD TCBP, SET TCBP FLG IN PDP-11
02141 406370 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02142 103222 JMS ERRCHK /ERROR?
02143 102625 JMS PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02144 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02145 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02146 005300 MES42
/*****
/TST73. TEST FOR API DONE TO CAUSE A PDP-11 INT AT CORRECT BR
/LEVEL.
TST73 0
02147 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02150 103222 JMS ERRCHK /ERROR?
02151 102625 JMS PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02152 602155 JMP .+3 /NO
02153 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02154 005660 MES56
02155 103222 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02156 102625 JMS ERRCHK /ERROR?
02157 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02160 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02161 005700 MES57
/*****
/TST74. TEST FOR TCBP TO CAUSE A PDP-11 INT AT CORRECT BR LEVEL.
TST74 0
02162 000000 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02163 103222 XCT LIOR /LOAD TCBP, SET TCBP FLG IN PDP-11
02164 406370 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02165 103222 JMS ERRCHK /ERROR?
02166 102625 JMS PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02167 602172 JMP .+3 /NO
02170 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02171 005720 MES58
02172 103222 JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02173 102625 JMS ERRCHK /ERROR?
02174 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02175 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02176 005742 MES59
/*****
.EJECT

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/*****
/TST75. CLEAR DR15 INT ENABLE AND TEST FOR NO PDP-15 INT FROM DR11
/API0 FLG.
02177 000000 TST75 0
02200 777777 LAM -100
02201 043452 DAC CNT4 /INITIALIZE COUNT
02202 750000 CLA
02203 406372 XCT LDPS /CLR INT ENABLE
02204 206445 LAC (JMP TST75A)
02205 040001 DAC 1 /INIT RETURN
02206 700042 ION /TURN PROGRAM INT ON
02207 777777 LAM -1
02210 040213 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
02211 443452 ISZ CNT4
02212 002211 JMP *-1
02213 700002 IOF /TURN PROGRAM INT OFF
02214 103227 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
02215 002674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
02216 102620 TST75A JMS IERR /INDICATE AN ERROR!
02217 103227 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
02220 102625 JMS ERRCHK /ERROR?
02221 740000 NOP
02222 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02223 005764 MES60

/*****
/TST76. TEST FOR DR11 API0 FLG TO CAUSE PDP-15 INT.
02224 000000 TST76 0
02225 206446 LAC (JMP TST76B)
02226 040001 DAC 1 /INIT RETURN
02227 143452 DZM CNT4 /INITIALIZE COUNT
02230 700042 ION /TURN PROGRAM INT ON
02231 777777 LAM -1
02232 040213 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
02233 443452 ISZ CNT4
02234 002233 JMP *-1
02235 700002 IOF /TURN PROGRAM INT OFF
02236 103227 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
02237 102620 TST76A JMS IERR /INDICATE AN ERROR!
02240 102625 JMS ERRCHK /ERROR?
02241 740000 NOP
02242 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02243 006010 MES61
02244 103227 TST76B JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
02245 406373 XCT SAPI0 /SKIP ON API LEVEL 0 FLG SET
02246 002237 JMP TST76A /NO
02247 002674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION

*****
.EJECT

```

```

/*****
/TST77. TEST FOR DR11 API1 FLG TO CAUSE PDP-15 INT.
02250 000000 TST77 0
02251 206447 LAC (JMP TST77B)
02252 040001 DAC 1 /INIT RETURN
02253 143452 DZM CNT4 /INITIALIZE COUNT
02254 700042 ION /TURN PROGRAM INT ON
02255 777777 LAM -1
02256 040213 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
02257 443452 ISZ CNT4
02260 002257 JMP *-1
02261 700002 IOF /TURN PROGRAM INT OFF
02262 103227 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
02263 102620 TST77A JMS IERR /INDICATE AN ERROR!
02264 102625 JMS ERRCHK /ERROR?
02265 740000 NOP
02266 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02267 006027 MES62
02270 103227 TST77B JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
02271 406374 XCT SAPI1 /SKIP ON API LEVEL 1 FLG SET
02272 002263 JMP TST77A /NO
02273 002674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION

/*****
/ST100. TEST FOR DR11 API2 FLG TO CAUSE PDP-15 INT.
02274 000000 ST100 0
02275 206450 LAC (JMP ST100B)
02276 040001 DAC 1 /INIT RETURN
02277 143452 DZM CNT4 /INITIALIZE COUNT
02300 700042 ION /TURN PROGRAM INT ON
02301 777777 LAM -1
02302 040213 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
02303 443452 ISZ CNT4
02304 002303 JMP *-1
02305 700002 IOF /TURN PROGRAM INT OFF
02306 103227 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
02307 102620 ST100A JMS IERR /INDICATE AN ERROR!
02310 102625 JMS ERRCHK /ERROR?
02311 740000 NOP
02312 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02313 006046 MES63
02314 103227 ST100B JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
02315 406375 XCT SAPI2 /SKIP ON API LEVEL 2 FLG SET
02316 002307 JMP ST100A /NO
02317 002674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION

*****
.EJECT

```



```

/*****
/ST101, TEST FOR UR11 API3 FLG TO CAUSE PDP-15 INT.
ST101  H
      LAC      (JMP ST101B
      DAC      1
      DZM      CNT4          /INITIALIZE COUNT
      ION      /TURN PROGRAM INT ON
      LAM      -1
      IUNE15   /INDICATE PDP-15 DONE FUNCTION
      ISZ      CNT4
      JMP      *-1
      IOF
      JMS      M11          /TURN PROGRAM INT OFF
      JMS      M11          /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
ST101A JMS      IERR        /INDICATE AN ERROR!
      JMS      ERRCHK       /ERROR?
      NOP
      JMS      E2ROU        /TYPE TST # AND AN ERROR DESCRIPTION
      MES64
ST101B JMS      M11          /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
      XCT      SAPI3        /SKIP ON API LEVEL 3 FLG SET
      JMP      ST101A       /NO
      JMP      PERCHK       /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

```

```

/*****
/ST102, TEST FOR API BREAKS TO CORRECT PORTS FROM 0 TO 177 FROM
/UR11 AP10
ST102  H
      JMS      TAPI          /DETERMINE WHETHER OR NOT TO TEST API
      JMP      ST102
      JMS      IAPORT        /INIT API PORT ADDRESSES
      LAM      -200
      DAC      TMCNT        /INITIALIZE COUNT
      DZM      PORT
      JMS      I15M11       /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
      DZM      CNT5        /INITIALIZE COUNT
      LAC      (400000
      ISA
      CLA
      SPA
      JMP      ST102B
      ISZ      CNT5
      JMP      *-3          /WAIT
      JMS      NXMCK        /CHECK FOR NEXM FLAG
      JMS      IERR        /INDICATE AN ERROR!
      JMS      ERRCHK       /ERROR?
      NOP
      JMS      E2ROU        /TYPE TST # AND AN ERROR DESCRIPTION
      MES48
ST102B ANU      (777
      SAD      PORT        /BREAK TO CORRECT PORT?
      JMP      ST102C       /YES
      DAC      TEMP2
      JMS      IERR        /INDICATE AN ERROR!
      JMS      ERRCHK       /ERROR?
      NOP
      JMS      HUR2        /TYPE "TST= GOOD = BAD" HEADER
      LAC      PORT
      JMS      OCT
      JMS      TYP
      LAC      TEMP2
      JMS      OCT
      JMS      CRLF        /TYPE CARRIAGE RETURN & LINE FEED
      JMS      PRETST
      JMP      BP
ST102C JMS      NXMCK        /CHECK FOR NEXM FLAG
      ISZ      PORT
      ISZ      TMCNT        /DONE?
      JMP      ST102A       /NO
      JMP      PERCHK       /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

```

```

/*****
/ST103. TEST FOR API BREAKS TO CORRECT PORTS FROM 0 TO 177 FROM
/DR11 APIL1.
02417 000000 ST103 0
02420 103354 JMS TAPI /DETERMINE WHETHER OR NOT TO TEST API
02421 622417 JMP+ ST103
02422 103207 JMS IAPORT
02423 777600 LAM -200
02424 043423 DAC THPCNT /INITIALIZE COUNT
02425 143453 DZM PORT
02426 103222 ST103A JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02427 143454 DZM CNT5 /INITIALIZE COUNT
02430 206436 LAC (400000)
02431 705004 ISA /INITIATE SELECTED ACTIVITY (API)
02432 750000 CLA
02433 741100 SPA
02434 602445 JMP ST103B
02435 443454 ISZ CNT5
02436 602433 JMP ,=3
02437 104120 JMS NXMCK /CHECK FOR NEXM FLAG
02440 102620 JMS IERR /INDICATE AN ERROR!
02441 102625 JMS ERRCHK /ERROR?
02442 740000 NOP
02443 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02444 005477 ME340
02445 506452 ST103B AND (777)
02446 543453 SAD PORT /BREAK TO CORRECT PORT?
02447 602465 JMP ST103C /YES
02450 043427 DAC TEMP2
02451 102620 JMS IERR /INDICATE AN ERROR!
02452 102625 JMS ERRCHK /ERROR?
02453 740000 NOP
02454 102776 JMS HDR2 /TYPE "TST= GOOD = BAD" HEADER
02455 203453 LAC PORT
02456 104013 JMS OCT
02457 103716 JMS TYP
02460 203427 LAC TEMP2
02461 104013 JMS OCT
02462 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02463 103753 JMS PRETST
02464 602643 JMP BP
02465 104120 ST103C JMS NXMCK /CHECK FOR NEXM FLAG
02466 443453 ISZ PORT
02467 443423 ISZ THPCNT /DONE?
02470 602426 JMP ST103A /NO
02471 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/ST104. TEST FOR API BREAKS TO CORRECT PORTS FROM 0 TO 177 FROM
/DR11 APIL2.
02472 000000 ST104 0
02473 103354 JMS TAPI /DETERMINE WHETHER OR NOT TO TEST API
02474 622472 JMP+ ST104
02475 103207 JMS IAPORT
02476 777600 LAM -200
02477 043423 DAC THPCNT /INITIALIZE COUNT
02500 143453 DZM PORT
02501 103222 ST104A JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP-11
02502 143454 DZM CNT5 /INITIALIZE COUNT
02503 206436 LAC (400000)
02504 705004 ISA /INITIATE SELECTED ACTIVITY (API)
02505 750000 CLA
02506 741100 SPA
02507 602520 JMP ST104B
02510 443454 ISZ CNT5
02511 602506 JMP ,=3
02512 104120 JMS NXMCK /CHECK FOR NEXM FLAG
02513 102620 JMS IERR /INDICATE AN ERROR!
02514 102625 JMS ERRCHK /ERROR?
02515 740000 NOP
02516 102736 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02517 005477 ME340
02520 506452 ST104B AND (777)
02521 543453 SAD PORT /BREAK TO CORRECT PORT?
02522 602540 JMP ST104C /YES
02523 043427 DAC TEMP2
02524 102620 JMS IERR /INDICATE AN ERROR!
02525 102625 JMS ERRCHK /ERROR?
02526 740000 NOP
02527 102776 JMS HDR2 /TYPE "TST= GOOD = BAD" HEADER
02530 203453 LAC PORT
02531 104013 JMS OCT
02532 103716 JMS TYP
02533 203427 LAC TEMP2
02534 104013 JMS OCT
02535 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02536 103753 JMS PRETST
02537 602643 JMP BP
02540 104120 ST104C JMS NXMCK /CHECK FOR NEXM FLAG
02541 443453 ISZ PORT
02542 443423 ISZ THPCNT /DONE?
02543 602501 JMP ST104A /NO
02544 602674 JMP PERCHK /CHECK FOR A PREVIOUS ERROR CONDITION
/*****
.EJECT

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/*****
/IST105. TEST FOR API BREAKS TO CORRECT PORTS FROM 0 TO 177 FROM
/DR11 APIL3.
ST105 0
02545 000000 JMS TAPI /DETERMINE WHETHER OR NOT TO TEST API
02546 103354 JMP+ ST105
02547 622545 JMS IAPORT
02550 103207 LAW =200
02551 777600 DAC TPCNT /INITIALIZE COUNT
02552 043423 DZM PORT
02553 143453 ST105A JMS I15W11 /INDICATE PDP-15 DONE FUNCTION & WAIT FOR PDP=11
02554 103222 DZM CNTS /INITIALIZE COUNT
02555 143454 LAC (400000)
02556 206436 ISA /INITIATE SELECTED ACTIVITY (API)
02557 705504 CLA
02560 750000 SPA
02561 741100 JMP ST105B
02562 602573 ISZ CNTS
02563 443454 JMS =3
02564 602561 JMS NXMCK /CHECK FOR NEXM FLAG
02565 104120 JMS IERR /INDICATE AN ERROR!
02566 102620 JMS ERRCHK /ERROR?
02567 102625 NOP
02570 740000 JMS E2ROU /TYPE TST # AND AN ERROR DESCRIPTION
02571 102736 MES4B
02572 005477 ST105B AND (777)
02573 506452 SAD PORT /BREAK TO CORRECT PORT?
02574 543453 JMP ST105C /YES
02575 602613 DAC TEMP2
02576 043427 JMS IERR /INDICATE AN ERROR!
02577 102620 JMS ERRCHK /ERROR?
02600 102625 NOP
02601 740000 JMS HDR2 /TYPE "TST= GOOD - BAD" HEADER
02602 102776 LAC PORT
02603 203453 JMS OCT
02604 104013 JMS TYP
02605 103710 LAC TEMP2
02606 203427 JMS OCT
02607 104013 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02610 103643 JMS PRETST
02611 103753 JMP BP
02612 602643 ST105C JMS NXMCK /CHECK FOR NEXM FLAG
02613 104120 ISZ PORT /DONE?
02614 443453 ISZ TPCNT /NO
02615 443423 JMP ST105A /CHECK FOR A PREVIOUS ERROR CONDITION
02616 602554 JMP PERCHK
02617 602674
/*****
.EJECT

```

```

/
02620 000000 IERR 0
02621 777777 LAW =1
02622 040210 DAC ERRIND /SET PREVIOUS ERROR INDICATOR
02623 040205 DAC ERRFLG
02624 622620 JMP+ IERR
02625 000000 ERRCHK 0
02626 200205 LAC ERRFLG /GET ERROR INDICATOR
02627 506412 AND (177777)
02630 546412 SAD (177777) /ERROR?
02631 602633 JMP ERRC.1 /YES
02632 622625 JMP+ ERRCHK /NO
02633 442625 ERRC.1 ISZ ERRCHK /GET CONTENTS OF AC SWITCHES
02634 750004 AND (20000)
02635 506422 SNA
02636 741200 JMP+ ERRCHK
02637 622625 LAC (207)
02640 206453 JMS SPTYP /TYPE CHAR REGARDLESS OF AC SW 3
02641 103742 JMP+ ERRCHK
02642 622625
/IF AC SW 1=1, RUN ALL TESTS WHETHER THEY FAIL OR NOT.
02643 750004 BP LAS /GET CONTENTS OF AC SWITCHES
02644 506454 AND (600000)
02645 741200 SNA /HLT ON ERR?
02646 740040 HLT
02647 777777 LAW =1
02650 043437 DAC PASIND
02651 750004 LAS /GET CONTENTS OF AC SWITCHES
02652 506455 AND (200000)
02653 741200 SNA /DO NXT TST?
02654 602661 JMP BP.2 /NO
02655 206456 HPA LAC (JMP+
02656 343421 TAD TSTPNT
02657 042660 DAC BP.1
02660 000000 BP.1 0 /GET CONTENTS OF AC SWITCHES
02661 750004 BP.2 LAS
02662 506457 AND (200)
02663 740200 SZL
02664 602655 JMP BPA
02665 206454 LAC (JMP
02666 343421 TAD TSTPNT
02667 042673 DAC BP.3
02670 140205 DZM EKRF LG
02671 442673 ISZ BP.3
02672 104120 JMS NXMCK /CHECK FOR NEXM FLAG
02673 000000 BP.3 0
.EJECT

```

```

02674 200210 / PERCHK LAC ENRIND
02675 506412 AND (177777
02676 546412 SAD (177777 /PREVIOUS ERROR?
02677 602744 JMP PERC.2 /YES
02700 206456 PERC.1 LAC (JMP*
02701 343421 TAD TSTPNT
02702 042703 DAC .+1
02703 000000 B
02704 750004 PERC.2 LAS /GET CONTENTS OF AC SWITCHES
02705 506455 AND (200000
02706 741200 SNA /NXT TST?
02707 602661 JMP BP.2 /NO
02710 140210 DZM ERRIND
02711 602700 JMP PERC.1

/
02712 103643 E1ROU JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02713 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
02714 004146 MES1 /TST= ADDR = GOOD = BAD
02715 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02716 206460 LAC (3
02717 043436 DAC DIG
02720 200201 LAC TEST /GET TEST NUMBER
02721 140013 JMS OCT /TST
02722 103716 JMS TYP
02723 200202 LAC ADR
02724 104013 JMS OCT /ADDR WHERE ERR WAS DETECTED
02725 103716 JMS TYP
02726 200203 LAC GOOD
02727 104013 JMS OCT /GOOD DATA
02730 103716 JMS TYP
02731 200204 LAC BAD
02732 104013 JMS OCT /BAD DATA
02733 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02734 103753 JMS PRETST
02735 602643 JMP BP

/
02736 000000 E2ROU B
02737 222736 LAC* E2ROU
02740 042743 DAC E2RO.1
02741 102753 JMS HDR1 /TYPE "TST=ERROR DESCRIPTION" HEADER
02742 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
02743 000000 E2RO.1 B
02744 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02745 103753 JMS PRETST
02746 602643 JMP BP
.EJECT

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02747 102776 / E3ROU JMS HDR2 /TYPE "TST= GOOD - BAD" HEADER
02750 200203 LAC GOOD
02751 104013 JMS OCT
02752 103716 JMS TYP
02753 200204 LAC BAD
02754 104013 JMS OCT
02755 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02756 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
02757 004501 MES1B
02760 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02761 103753 JMS PRETST
02762 602643 JMP BP

/
02763 000000 HDR1 B
02764 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02765 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
02766 004212 MES5 /TST=ERROR DESCRIPTION
02767 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
02770 206460 LAC (3
02771 043436 DAC DIG
02772 200201 LAC TEST /GET TEST NUMBER
02773 104013 JMS OCT
02774 103716 JMS TYP
02775 622763 JMP* HDR1

/
02776 000000 HDR2 B
02777 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03000 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03001 004334 MES1B /TST= GOOD - BAD
03002 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03003 206460 LAC (3
03004 043436 DAC DIG
03005 200201 LAC TEST /GET TEST NUMBER
03006 104013 JMS OCT
03007 103716 JMS TYP
03010 622776 JMP* HDR2

/
03011 000000 EFCHK B
03012 200205 LAC ERRFLG /GET ERROR INDICATOR
03013 506412 AND (177777
03014 546412 SAD (177777
03015 623011 JMP* EFCHK
03016 777777 LAN -1
03017 040205 DAC ERRFLG
03020 203422 LAC TBAD
03021 040214 DAC BAD
03022 203433 LAC TGOOD
03023 040203 DAC GOOD
03024 200210 LAC 10
03025 040202 DAC ADR
03026 623011 JMP* EFCHK
.EJECT

```

```

/
03027 000000 / PAS 0
03030 750004 LAS /GET CONTENTS OF AC SWITCHES
03031 500444 AND (100000
03032 741200 SNA
03033 603037 JMP PAS,A
03034 777777 LAW =1
03035 043437 DAC PASIND
03036 623027 JMP* PAS
03037 200201 PAS,A LAC TEST /GET TEST NUMBER
03040 343455 TAU TSTIBL
03041 043437 DAC PASIND
03042 223437 LAC* PASIND
03043 103712 JMS RTHR /ROTATE AC RIGHT 3X
03044 103712 JMS RTHR /ROTATE AC RIGHT 3X
03045 103712 JMS RTHR /ROTATE AC RIGHT 3X
03046 103712 JMS RTHR /ROTATE AC RIGHT 3X
03047 505461 AND (77
03050 740001 CMA
03051 346443 TAD (1
03052 043437 DAC PASIND
03053 623027 JMP* PAS
/SUBROUTINE TO SELECT NEXT TEST
03054 000000 TSTSEL 0
03055 750004 LAS /GET CONTENTS OF AC SWITCHES
03056 506462 AND (177
03057 741200 SNA /LOOP ON TEST?
03060 603100 JMP TSTS,2 /NO
03061 140201 DAC TEST /YES
03062 722000 PAL
03063 546462 SAD (177
03064 603076 JMP TSTS,1
03065 346463 TAD (-106
03066 741100 SPA /LEGAL TEST?
03067 623054 JMP* TSTSEL /YES
03070 102763 JMS HDR1 /TYPE "TST=ERROR DESCRIPTION" HEADER
03071 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03072 006104 ME365
03073 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03074 140201 DZM TEST
03075 603055 JMP TSTSEL+1
.EJECT

```

```

03076 103252 TSTS,1 JMS PWRFL
03077 603055 JMP TSTSEL+1
03100 750004 TSTS,2 LAS /GET CONTENTS OF AC SWITCHES
03101 506457 AND (200
03102 741200 SNA /RANDOM TEST
03103 603107 JMP TSTS,4 /NO
03104 750004 LAS /GET CONTENTS OF AC SWITCHES
03105 506455 AND (200000
03106 740200 SZA /OO NXT TST?
03107 603130 JMP TSTS2A /YES
03110 200210 LAC ERRIND
03111 506412 AND (177777
03112 546412 SAD (177777
03113 741000 SKP
03114 603130 JMP TSTS2A
03115 223455 LAC* ITST
03116 740201 DAC TEST
03117 722000 PAL
03120 443455 ISZ ITST
03121 203455 LAC ITST
03122 546464 SAD (TEST4+1
03123 741000 SKP
03124 623054 JMP* TSTSEL
03125 206404 LAC (TEST1
03126 343455 DAC ITST
03127 623054 JMP* TSTSEL
.EJECT

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#313# 223441 TSTS2A LAC* RANPNT
#3131 343443 TAD RAN
#3132 546462 AND (177
#3133 443442 DAC RANSAV
#3134 443441 ISZ RANPNT
#3135 740#0# NOP
#3136 443443 ISZ RAN
#3137 740#0# NOP
#314# 203441 LAC RANPNT
#3141 543450 SAD SIZ
#3142 741#0# SKP
#3143 643146 JMP ,+3
#3144 206457 LAC (20#
#3145 443441 DAC RANPNT
#3146 203442 LAC RANSAV
#3147 7412#0# SNA
#3150 443442 ISZ RANSAV
#3151 346463 TAD (-106
#3152 74016# SMA
#3153 60310# JMP TSTS.2
#3154 2002#1 TSTS.3 LAC TEST /LEGAL TEST?
#3155 443444 DAC TEST1 /NO.TRY AGAINI
#3156 2002#1 LAC TEST /GET TEST NUMBER2
#3157 443445 DAC TEST2 /GET TEST NUMBER3
#316# 2002#1 LAC TEST /GET TEST NUMBER4
#3161 443446 DAC TEST3
#3162 203442 LAC RANSAV
#3163 443447 DAC TEST4
#3164 4402#1 DAC TEST
#3165 722#0# PAL
#3166 623#54 JMP* TSTSEL
#3167 4402#1 TSTS.4 ISZ TEST
#3170 2002#1 LAC TEST /GET TEST NUMBER
#3171 722#0# PAL
#3172 623#54 JMP* TSTSEL
.EJECT
    
```

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#3173 00000# /SUBROUTINE TO SELECT NXT MEM PAGE
#3174 220017 PAGSEL 0
#3175 546431 LAC* 17
#3176 6032#1 SAD (-1 /END OF TABLE?
#3177 44342# DAC ADRPNT /YES
#3200 623173 JMP* PAGSEL /NO. SET TO NXT PAGE.
#3201 206414 PAGES.1 LAC (ADRTBL-1
#3202 440017 DAC 17
#3203 220017 LAC* 17
#3204 44342# DAC ADRPNT
#3205 443173 ISZ PAGSEL
#3206 623173 JMP* PAGSEL

#3207 00000# /SUBROUTINE TO INIT API PORT ADDRESSES 0 TO 177.
#321# 143453 IAPORT 0
#3211 777#0# DZM PORT
#3212 443423 LAM -200
#3213 76000# IAPD.A DAC TNPCNT /INITIALIZE COUNT
#3214 343453 LAM TAD PORT
#3215 663453 GAC* PORT
#3216 443453 ISZ PORT
#3217 443423 ISZ TNPCNT
#3220 603213 JMP IAPD.A
#3221 623207 JMP* IAPORT

#3222 00000# /IND 15 READY & WAIT FOR 11.
#3223 777777 I15#11 0
#3224 440213 LAM -1
#3225 103227 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
#3226 623222 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
#3227 00000# /WAIT FOR 11 TO RESPOND.
#3230 143413 W11 0
#3231 777776 DZM CNT1 /INITIALIZE COUNT
#3232 443414 LAM -2
#3233 200214 DAC CNT2 /INITIALIZE COUNT
#3234 546412 W11.A LAC IDNE11 /GET PDP-11 DONE FUNCTION INDICATOR
#3235 741#0# SAD (177777 /11 READY?
#3236 603241 JMP W11.B
#3237 140214 DZM IDNE11
#3240 623227 JMP* W11
#3241 443413 W11.B ISZ CNT1
#3242 603233 JMP W11.A
#3243 443414 ISZ CNT2
#3244 603233 JMP W11.A
#3245 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
#3246 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
#3247 005101 MESS37
#325# 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
#3251 603230 JMP W11#1
.EJECT
    
```

```

/*****
/*****
/POWER FAIL TEST. BOTH PDP-15 & 11 ARE TESTED TO RECOVER FROM
/A POWER FAILURE. BOTH PRUGRAMS MUST BE RESTARTED AFTER RUNNING THIS TEST.
PWRFL 0
03252 000000 LAC (JMP PWR.F.B
03253 206465 DAC 1 /INIT RETURN
03254 040001 LAW =1
03255 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
03256 040213 JMS W11 /WAIT FOR PDP-11 DONE FUNCTION INDICATOR
03257 103227 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03260 103643 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03261 103651 MESS1
03262 005542 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03263 103643 PWR.F.A IDN /TURN PROGRAM INT ON
03264 700042 LAC IDNE11 /GET PDP-11 DONE FUNCTION INDICATOR
03265 200214 SAD IDNE15 /REF COMMON MEM WHILE WAITING
03266 540213 NOP
03267 740000 JMP PWR.F.A
03270 603264 PWR.F.B PFSF /POWER FAILURE?
03271 703201 SKP /NO
03272 741000 JMP PWR.F.C
03273 603276 JMS NXMCK /CHECK FOR NEXM FLAG
03274 104120 JMP PWR.F.A
03275 603264 PWR.F.C LAC (JMP PWR.F.D
03276 206466 DAC 0
03277 040000 LAC (JMP PWR.F.G
03300 206467 DAC 21 /IN CASE OF CAL DURING PWR UP
03301 040021 HLT
03302 740040 JMP =-1
03303 603302 PWR.F.D LAW =2
03304 777776 DAC CNT2 /INITIALIZE COUNT
03305 043414 OZM CNT1 /INITIALIZE COUNT
03306 143413 LAW =1
03307 777777 DAC IDNE15 /INDICATE PDP-15 DONE FUNCTION
03310 040213 PWR.F.E LAC IDNE11 /GET PDP-11 DONE FUNCTION INDICATOR
03311 200214 SAD (177777
03312 546412 JMP PWR.F.F
03313 603325 ISZ CNT1
03314 443413 JMP PWR.F.E
03315 603311 ISZ CNT2
03316 443414 JMP PWR.F.E
03317 603311 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03320 103643 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03321 103651 MESS2
03322 005561 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03323 103643 JMP PWRFL+1
03324 603253 PWR.F.F OZM IDNE11
03325 140214 LAC GOOD
03326 200203 SAD (177777 /15 PWR FAIL FIRST?
03327 546412 JMP PWR.1 /YES
03330 603336 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03331 103643 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03332 103651 MESS3
03333 005600 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03334 103643 JMS

```

```

03335 603253 PWR.1 JMP PWRFL+1 /START OVER
03336 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03337 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03340 005520 MESS0
03341 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03342 603253 JMP PWRFL+1
03343 103643 PWR.F.G JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03344 200020 LAC 20
03345 506470 AND (177777
03346 104013 JMS OCT
03347 103716 JMS TYP
03350 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03351 005637 MESS5
03352 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03353 603253 JMP PWRFL+1
/*****
/*****
.EJECT

```

```

/
03354 000000 TAPI 0
03355 203415 LAC IAPI
03356 741200 SNA /TEST API?
03357 623354 JMP* TAPI /NO
03360 443354 ISZ TAPI
03361 623354 JMP* TAPI

/SUBROUTINE TO WRITE PDP-15 ADDRESSES INTO 2K OF COMMON MEMORY STARTING
/AT ADDRESS*1 WHERE LOC 10 CONTAINS ADDRESS. A RANDOM FASHION DELAY IS
/EXECUTED BEFORE EACH WORD IS WRITTEN.
03362 000000 WRT2K 0
03363 774000 LAM -4000
03364 043417 DAC MCNT /INITIALIZE COUNT
03365 200010 LAC 10
03366 346443 TAD (1
03367 060210 DAC* 10 /WRITE AN ADDRESS INTO A LOC
03370 443417 ISZ MCNT /DONE?
03371 603365 JMP -4 /NO
03372 623362 JMP* WRT2K

/SUBROUTINE TO READ & CHECK PDP-15 ADDRESSES WRITTEN BY 11. EACH LOC
/SHOULD CONTAIN ITS PDP-15 ADDRESS. IF AN ERROR IS ENCOUNTERED, LOC
/ERRFLG IS SET TO -1, THE GOOD WORD AND ADDRESS (SAME) IS DEPOSITED IN
/LOC GOOD, AND THE INCORRECT DATA WHICH WAS READ IS DEPOSITED IN LOC
/BAD. TESTING BEGINS AT ADDRESS*1 WHERE LOC 10 CONTAINS ADDRESS.
/DELAY BEFORE EACH WORD IS CHECKED.
03373 000000 READ2K 0
03374 774000 LAM -4000
03375 043416 DAC RCNT /INITIALIZE COUNT
03376 220010 READ,1 LAC* 10
03377 043422 DAC TBAD /TEMP STORAGE
03400 540010 SAD 10 /DATA READ, SAME AS ADDRESS?
03401 603410 JMP READ,2 /YES
03402 200010 LAC 10
03403 043433 DAC TGOOD
03404 777777 LAM -1 /NO
03405 040210 DAC ERKIND /SET PREVIOUS ERROR INDICATOR
03406 103011 JMS EFCHK /CHECK ERRFLG TO DETERMINE WHETHER OR NOT TO STORE DATA
03407 623373 JMP* READ2K
03410 443416 READ,2 ISZ RCNT /DONE?
03411 603376 JMP READ,1 /NO
03412 623373 JMP* READ2K
.EJECT
    
```

```

/CONSTANTS & VARIABLES
03413 000000 CNT1 0
03414 200000 CNT2 0
03415 000000 IAPI 0
03416 000000 RCNT 0
03417 000000 MCNT 0
03420 000000 ADRPNT 0
03421 000000 TSTPNT 0
03422 000000 TBAD 0
03423 000000 TMCNT 0
03424 000000 PASCNT 0
03425 000000 TEMP 0
03426 000000 TEMP1 0
03427 000000 TEMP2 0
03430 000000 MSAVE 0
03431 000000 SXBI 0
03432 000000 INIT 0
03433 000000 TGOOD 0
03434 000000 SAVL 0
03435 000000 LZK 0
03436 000000 DIG 0
03437 000000 PASIND 0
03440 000000 TYPTNP 0
03441 000200 RANPNT 200
03442 000000 RANSAV 0
03443 000000 RAM 0
03444 000000 TEST1 0
03445 000000 TEST2 0
03446 000000 TEST3 0
03447 000000 TEST4 0
03450 006503 .SIZE
03451 000000 CNT3 0
03452 000000 CNT4 0
03453 000000 PORT 0
03454 000000 CNT5 0
03455 000000 ITST 0
03456 000000 IBCNT 0
/
03457 010000 ADRTBL 10000 /IND 0K MIN OF COMMON MEM
03458 000000 0 /IND 12K IF NOT -1
03459 000000 0 /IND 16K IF NOT -1
03460 000000 0 /IND 20K IF NOT -1
03461 000000 0 /IND 24K IF NOT -1
03462 000000 -1 /IND END OF TABLE
.EJECT
    
```



		/	TSTTBL	.
03465	0203465			TST1+20000
03466	020466			TST2+20000
03467	020503			TST3+20000
03470	020527			TST4+20000
03471	020556			TST5+20000
03472	020572			TST6+20000
03473	020631			TST7+20000
03474	020674			TST10+20000
03475	020723			TST11+20000
03476	020756			TST12+20000
03477	021007			TST13+20000
03500	021040			TST14+20000
03501	021127			TST15+770000
03502	771216			TST16+770000
03503	771225			TST17+770000
03504	771234			TST20+770000
03505	771243			TST21+770000
03506	771254			TST22+770000
03507	771265			TST23+770000
03510	771301			TST24+20000
03511	021314			TST25+770000
03512	771365			TST26+770000
03513	771373			TST27+770000
03514	771401			TST30+770000
03515	771407			TST31+770000
03516	771415			TST32+770000
03517	771423			TST33+770000
03520	771435			TST34+770000
03521	771447			TST35+770000
03522	771461			TST36+770000
03523	771473			TST37+770000
03524	771504			TST40+770000
03525	771515			TST41+770000
03526	771526			TST42+770000
03527	771537			TST43+770000
03530	771565			TST44+770000
03531	771613			TST45+770000
03532	771641			TST46+770000
03533	771667			TST47+770000
03534	771701			TST50+770000
03535	771714			TST51+770000
03536	771727			TST52+770000
03537	771745			TST53+770000
03540	771753			TST54+770000
03541	771771			TST55+770000
03542	771777			TST56+770000
03543	772015			TST57+770000
03544	772023			TST60+770000
03545	772041			TST61+770000
03546	772047			TST62+770000
03547	772055			TST63+770000
03550	772063			TST64+770000
03551	772071			TST65+770000
03552	772077			

03553	772105			TST66+770000
03554	502113			TST67+500000
03555	502121			TST70+500000
03556	502131			TST71+500000
03557	502137			TST72+500000
03560	502147			TST73+500000
03561	502162			TST74+500000
03562	502177			TST75+500000
03563	502224			TST76+500000
03564	502250			TST77+500000
03565	502274			ST100+500000
03566	502320			ST101+500000
03567	102344			ST102+100000
03570	102417			ST103+100000
03571	102472			ST104+100000
03572	102545			ST105+100000
03573	777777			-1

.EJECT

/SUBROUTINE TO READ 6 OR LESS OCTAL DIGITS FROM KEYBOARD. INCORRECT  
 /CHARACTERS CAUSE RETURN TO NORMAL FLOW, CORRECT CAUSE RETURN TO NORMAL  
 /FLOW+. RESULT IN TEMP1 & AC.

```

03574 000000 READ 0
03575 777772 LAM -0
03576 043423 DAC TPCNT /INITIALIZE COUNT
03577 143426 DZM TEMP1
03600 700301 REA.1 KSF
03601 603600 JMP -1
03602 700312 KR0
03603 043425 DAC TEMP
03604 346471 TAD (-215
03605 740200 SZA /CR?
03606 603612 JMP +4 /NO
03607 203426 LAC TEMP1
03610 443574 ISZ READ /YES
03611 023574 JMP+ READ
03612 203425 LAC TEMP
03613 346472 TAD (-260
03614 750100 SMAICLA />260?
03615 603622 JMP +5 /YES
03616 103651 REA.2 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03617 004156 MES2
03620 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03621 023574 JMP+ READ
03622 203425 LAC TEMP
03623 346473 TAD (-270
03624 750100 SMAICLA /<270?
03625 603616 JMP REA.2 /NO
03626 203425 LAC TEMP /YES
03627 506415 AND (7
03630 043425 DAC TEMP
03631 744000 CLL
03632 203426 LAC TEMP1
03633 740010 RAL
03634 742010 RTL
03635 343425 TAD TEMP
03636 043426 DAC TEMP1
03637 443423 ISZ TPCNT
03640 603600 JMP REA.1
03641 443574 ISZ READ
03642 023574 JMP+ READ

03643 000000 / CRLF 0
03644 760215 LAM 215
03645 103716 JMS TYP
03646 760212 LAM 212
03647 103716 JMS TYP
03650 623643 JMP+ CRLF
.EJECT
  
```

```

03651 000000 / MESS 0
03652 223651 LAC+ MESS
03653 506470 AND (17777
03654 043430 DAC MSAVE
03655 443651 ISZ MESS
03656 103733 JMS CTTY /TYP?
03657 023651 JMP+ MESS
03660 223430 MES.1 LAC+ MSAVE
03661 043431 DAC SXBT
03662 103712 JMS RTHR /ROTATE AC RIGHT 3X
03663 103712 JMS RTHR /ROTATE AC RIGHT 3X
03664 103712 JMS RTHR /ROTATE AC RIGHT 3X
03665 103712 JMS RTHR /ROTATE AC RIGHT 3X
03666 103677 JMS MESSA
03667 203431 LAC SXBT
03670 103712 JMS RTHR /ROTATE AC RIGHT 3X
03671 103712 JMS RTHR /ROTATE AC RIGHT 3X
03672 103677 JMS MESSA
03673 203431 LAC SXBT
03674 103677 JMS MESSA
03675 443430 ISZ MSAVE
03676 603660 JMP MES.1

03677 000000 / MESSA 0
03700 506461 AND (77
03701 741200 SMA
03702 623651 JMP+ MESS
03703 043425 DAC TEMP
03704 346474 TAD (-40
03705 751100 SPAICLA
03706 206475 LAC (100
03707 343425 TAD TEMP
03710 103716 JMS TYP
03711 623677 JMP+ MESSA

03712 000000 / RTHR 0
03713 740020 RAR
03714 742020 RTR
03715 623712 JMP+ RTHR
.EJECT
  
```

```

03716 000000 / TYP 0
03717 043440 DAC TYPTMP
03720 103733 JMS CTTY /TYP?
03721 623716 JMP* TYP
03722 203440 LAC TYPTMP
03723 741200 SNA
03724 760240 LAW 240
03725 700406 TLS
03726 700401 TSF
03727 603726 JMP *-1
03730 700402 TCF
03731 750000 CLA
03732 623716 JMP* TYP

/ CTTY 0
03733 000000 LAS /GET CONTENTS OF AC SWITCHES
03734 750004 AND (40000
03735 506424 SZA /TYP?
03736 740200 JMP* CTTY /NO
03737 623733 ISZ CTTY
03740 443733 JMP* CTTY

/ SPTYP 0
03742 000000 SNA
03743 741200 LAW 240
03744 760240 TLS
03745 700406 TSF
03746 700401 JMP *-1
03747 603746 TCF
03750 700402 CLA
03751 750000 JMP* SPTYP
03752 623742 .EJECT
    
```

```

03753 000000 / PRETST 0
03754 750004 LAS /GET CONTENTS OF AC SWITCHES
03755 506457 AND (200
03756 741200 SNA /RANDOM TEST?
03757 623753 JMP* PRETST /NO
03760 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03761 006204 MES70
03762 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03763 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03764 006251 MES75
03765 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03766 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03767 006230 MES71
03770 200201 LAC TEST /GET TEST NUMBER1
03771 104013 JMS OCT
03772 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
03773 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
03774 006234 MES72
03775 200201 LAC TEST /GET TEST NUMBER2
03776 104013 JMS OCT
03777 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
04000 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
04001 006240 MES73
04002 200201 LAC TEST /GET TEST NUMBER3
04003 104013 JMS OCT
04004 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
04005 103651 JMS MESS /TYPE A MESSAGE VIA THE FOLLOWING POINTER
04006 006244 MES74
04007 200201 LAC TEST /GET TEST NUMBER4
04010 104013 JMS OCT
04011 103643 JMS CRLF /TYPE CARRIAGE RETURN & LINE FEED
04012 623753 JMP* PRETST
    .EJECT
    
```

```

04013 000000 / OCT 0
04014 043434 DAC SAVE
04015 103733 JMS CTTY /TYP?
04016 624013 JMP* OCT
04017 143435 DZM LZER
04020 203436 LAC DIG
04021 741200 SNA /5 ?
04022 604031 JMP OCT.1
04023 546417 SAD (4
04024 604046 JMP OCT.2
04025 546460 SAD (3
04026 604053 JMP OCT.3
04027 546443 SAD (1
04030 604062 JMP OCT.4
04031 203434 OCT.1 LAC SAVE
04032 103712 JMS RTHR /ROTATE AC RIGHT 3X
04033 103712 JMS RTHR /ROTATE AC RIGHT 3X
04034 103712 JMS RTHR /ROTATE AC RIGHT 3X
04035 103712 JMS RTHR /ROTATE AC RIGHT 3X
04036 103712 JMS RTHR /ROTATE AC RIGHT 3X
04037 104070 JMS OCTY1
04040 203434 LAC SAVE
04041 103712 JMS RTHR /ROTATE AC RIGHT 3X
04042 103712 JMS RTHR /ROTATE AC RIGHT 3X
04043 103712 JMS RTHR /ROTATE AC RIGHT 3X
04044 103712 JMS RTHR /ROTATE AC RIGHT 3X
04045 104070 JMS OCTY1
04046 203434 OCT.2 LAC SAVE
04047 103712 JMS RTHR /ROTATE AC RIGHT 3X
04050 103712 JMS RTHR /ROTATE AC RIGHT 3X
04051 103712 JMS RTHR /ROTATE AC RIGHT 3X
04052 104070 JMS OCTY1
04053 203434 OCT.3 LAC SAVE
04054 103712 JMS RTHR /ROTATE AC RIGHT 3X
04055 103712 JMS RTHR /ROTATE AC RIGHT 3X
04056 104070 JMS OCTY1
04057 203434 LAC SAVE
04060 103712 JMS RTHR /ROTATE AC RIGHT 3X
04061 104070 JMS OCTY1
04062 203434 OCT.4 LAC SAVE
04063 506415 AND (7
04064 346476 TAD (260
04065 103716 JMS TYP
04066 143436 DZM DIG
04067 624013 JMP* OCT
.EJECT
    
```

```

04070 000000 / OCTY1 0
04071 506415 AND (7
04072 741200 SNA
04073 604100 JMP OCTY.2
04074 443435 ISZ LZER
04075 346476 OCTY.1 TAD (260
04076 103716 JMS TYP
04077 624070 JMP* OCTY1
04100 203435 OCTY.2 LAC LZER
04101 750200 SZALCLA
04102 604075 JMP OCTY.1
04103 760240 LAM 240
04104 103716 JMS TYP
04105 624070 JMP* OCTY1
/
04106 000000 Ibuff 0
04107 043456 DAC IBCNT
04110 203420 LAC ADRPNT /GET FIRST ADDRESS OF CURRENT PAGE
04111 346431 TAD (-1
04112 040010 DAC 10
04113 777777 LAM -1
04114 060010 DAC* 10
04115 443456 ISZ IBCNT
04116 604114 JMP *-2
04117 624106 JMP* Ibuff
.EJECT
    
```

```

04120 000000 /
04121 701741 / NXMCK 0
04122 604144 / MPSNE /NEXM SET?
04123 103043 / JMP NXMCK1 /NOPE
04124 103043 / JMS CRLF /YES..
04125 103051 / JMS MESS / ..GO TELL THE MANI
04126 006275 / MES76
04127 204120 / LAC NXMCK
04130 506477 / AND (077777
04131 104013 / JMS OCT /PRINT THE PC
04132 103043 / JMS CRLF
04133 103051 / JMS MESS /MAKE SOME SUGGESTIONS
04134 006307 / MES76A
04135 103043 / JMS CRLF
04136 103051 / JMS MESS
04137 006325 / MES76B
04140 103043 / JMS CRLF
04141 103051 / JMS MESS
04142 006351 / MES76C
04143 103043 / JMS CRLF
04144 703302 / NXMCK1 CAF
04145 624120 / JMP* NXMCK
      .EJECT
    
```

```

04146 242324 /MESSAGES
04147 554001 MES1 .SIXBT 'TST- ADDR = GOOD = BAD#'
04150 040422
04151 405540
04152 071717
04153 044055
04154 400201
04155 040000
04156 777777 MES2 .SIXBT '????'
04157 000000
04160 042261 MES3 .SIXBT 'DR11-C BR5 TV LOC (TYPE CR FOR 300) = #'
04161 615003
04162 400222
04163 654024
04164 264014
04165 170340
04166 502431
04167 200540
04170 032240
04171 061722
04172 406360
04173 605140
04174 754000
04175 042261 MES4 .SIXBT 'DR11-C BR7 TV LOC (TYPE CR FOR 310) = #'
04176 815503
04177 400222
04200 674024
04201 264014
04202 170340
04203 502431
04204 200540
04205 032240
04206 061722
04207 406361
04210 605140
04211 754000
04212 242324 MES5 .SIXBT 'TST=ERROR DESCRIPTION#'
04213 550522
04214 221722
04215 400405
04216 230322
04217 112024
04220 111716
04221 000000
04222 141117 MES6 .SIXBT 'LIOR FAILED TO SET DR11 TCBP FLG.#'
04223 224006
04224 011114
04225 050440
04226 241740
04227 230524
04230 400422
04231 616140
04232 240302
04233 204000
    
```

04234	140756	
04235	000000	
04236	040124	MES7 .SIXBT 'UATI TO PDP-11 LOC 107764 FAILED TO CLEAR TCBP FLG.0'
04237	114024	
04240	174024	
04241	042055	
04242	610140	
04243	141703	
04244	006166	
04245	676766	
04246	644006	
04247	011114	
04250	050440	
04251	241740	
04252	031405	
04253	012240	
04254	240302	
04255	204006	
04256	140756	
04257	000000	
04260	030106	MES8 .SIXBT 'CAF FAILED TO SET, OR SIOA FAILED TO SKIP ON, TCBP ACCEPTED FLG.0'
04261	400601	
04262	111405	
04263	044024	
04264	174023	
04265	052454	
04266	401722	
04267	002311	
04270	170140	
04271	060111	
04272	140504	
04273	002417	
04274	002313	
04275	112040	
04276	171654	
04277	002403	
04300	022040	
04301	010303	
04302	052024	
04303	050440	
04304	061407	
04305	500000	
04306	031117	MES9 .SIXBT 'CIOD FAILED TO CLR TCBP ACCEPTED FLG OR SIOA SKIPPED ON NO FLG.0'
04307	044000	
04310	011114	
04311	050440	
04312	241740	
04313	031422	
04314	002403	
04315	022040	
04316	010303	
04317	052024	
04320	050440	
04321	061407	
04322	401722	

04323	002311	
04324	170140	
04325	231311	
04326	202005	
04327	044017	
04330	164016	
04331	174006	
04332	140756	
04333	000000	
04334	242324	MES10 .SIXBT 'TST- GOOD - BAD0'
04335	554007	
04336	171704	
04337	005540	
04340	020104	
04341	000000	
04342	042261	MES11 .SIXBT 'DR11 API 0 DONE FLG FAILED TO SET.0'
04343	614001	
04344	201140	
04345	004004	
04346	171605	
04347	000614	
04350	074006	
04351	011114	
04352	050440	
04353	241740	
04354	230524	
04355	500000	
04356	042261	MES12 .SIXBT 'DR11 API 1 DONE FLG FAILED TO SET.0'
04357	614001	
04360	201140	
04361	614004	
04362	171605	
04363	000614	
04364	074006	
04365	011114	
04366	050440	
04367	241740	
04370	230524	
04371	500000	
04372	042261	MES13 .SIXBT 'DR11 API 2 DONE FLG FAILED TO SET.0'
04373	614001	
04374	201140	
04375	024004	
04376	171605	
04377	000614	
04400	074006	
04401	011114	
04402	050440	
04403	241740	
04404	230524	
04405	500000	
04406	042261	MES14 .SIXBT 'DR11 API 3 DONE FLG FAILED TO SET.0'
04407	614001	
04410	201140	
04411	534004	

04412 171605  
 04413 400614  
 04414 074006  
 04415 011114  
 04416 050440  
 04417 241740  
 04420 230524  
 04421 560000  
 04422 042261  
 04423 614001  
 04424 201140  
 04425 041716  
 04426 054006  
 04427 140740  
 04430 060111  
 04431 140504  
 04432 402417  
 04433 402305  
 04434 245000  
 04435 042261  
 04436 654011  
 04437 102440  
 04440 051001  
 04441 021405  
 04442 400501  
 04443 111405  
 04444 044024  
 04445 174002  
 04446 054023  
 04447 052440  
 04450 023140  
 04451 140422  
 04452 235000  
 04453 042261  
 04454 614001  
 04455 201140  
 04456 140526  
 04457 051440  
 04460 004004  
 04461 171605  
 04462 400614  
 04463 074006  
 04464 011114  
 04465 050440  
 04466 241740  
 04467 031422  
 04470 401722  
 04471 402722  
 04472 171607  
 04473 400417  
 04474 160540  
 04475 061407  
 04476 400314  
 04477 220504  
 04500 560000

MES15 ,SIXBT 'DR11 API DONE FLG FAILED TO SET,0'

MES16 ,SIXBT 'DR15 INT ENABLE FAILED TO BE SET BY LDRS,0'

MES17 ,SIXBT 'DR11 API LEVEL 0 DONE FLG FAILED TO CLR OR WRONG DONE FLG CLRED,0'

04501 021124  
 04502 406275  
 04503 012011  
 04504 401405  
 04505 260514  
 04506 406054  
 04507 406375  
 04510 140526  
 04511 051440  
 04512 615440  
 04513 647514  
 04514 052005  
 04515 144002  
 04516 400110  
 04517 044005  
 04520 751405  
 04521 260514  
 04522 406305  
 04523 000000  
 04524 042261  
 04525 614001  
 04526 201140  
 04527 140526  
 04530 051440  
 04531 614004  
 04532 171605  
 04533 400614  
 04534 074006  
 04535 011114  
 04536 050440  
 04537 241740  
 04540 031422  
 04541 401722  
 04542 402722  
 04543 171607  
 04544 400417  
 04545 160540  
 04546 061407  
 04547 400314  
 04550 220504  
 04551 560000  
 04552 030120  
 04553 116040  
 04554 060111  
 04555 140504  
 04556 402417  
 04557 400314  
 04560 224001  
 04561 201100  
 04562 400614  
 04563 075600  
 04564 042261  
 04565 614001  
 04566 201140  
 04567 140526

MES18 ,SIXBT 'BIT 2=API LEVEL 0, 3=LEVEL 1, 4=LEVEL 2 AND 5=LEVEL 3,0'

MES19 ,SIXBT 'DR11 API LEVEL 1 DONE FLG FAILED TO CLR OR WRONG DONE FLG CLRED,0'

MES20 ,SIXBT 'CAPI0 FAILED TO CLR API0 FLG,0'

MES21 ,SIXBT 'DR11 API LEVEL 2 DONE FLG FAILED TO CLR OR WRONG DONE FLG CLRED,0'

04570 051440  
 04571 624004  
 04572 171605  
 04573 400614  
 04574 074006  
 04575 011114  
 04576 050440  
 04577 241740  
 04600 031422  
 04601 401722  
 04602 402722  
 04603 171607  
 04604 400417  
 04605 160540  
 04606 061407  
 04607 400314  
 04610 220504  
 04611 500000  
 04612 030120  
 04613 116140  
 04614 060111  
 04615 140504  
 04616 402417  
 04617 400314  
 04620 224001  
 04621 201161  
 04622 400614  
 04623 075600  
 04624 042261  
 04625 614001  
 04626 201140  
 04627 140526  
 04630 051440  
 04631 634004  
 04632 171605  
 04633 400614  
 04634 074006  
 04635 011114  
 04636 050440  
 04637 241740  
 04640 031422  
 04641 401722  
 04642 402722  
 04643 171607  
 04644 400417  
 04645 160540  
 04646 061407  
 04647 400314  
 04650 220504  
 04651 500000  
 04652 012211  
 04653 400417  
 04654 100540  
 04655 061407  
 04656 400601

MES22 .SIXBT 'CAPI1 FAILED TO CLR API FLG.#'

MES23 .SIXBT 'DR11 API LEVEL 3 DONE FLG FAILED TO CLR OR WRONG DONE FLG CLRED.#'

MES24 .SIXBT 'API DONE FLG FAILED TO CLEAR WHEN LEVEL 0 HAD A REQUEST PENDING.#'

04657 111405  
 04660 044024  
 04661 174003  
 04662 140501  
 04663 224027  
 04664 100516  
 04665 401405  
 04666 260514  
 04667 400640  
 04670 100104  
 04671 400140  
 04672 220521  
 04673 250523  
 04674 244020  
 04675 031604  
 04676 111607  
 04677 500000  
 04700 230120  
 04701 116040  
 04702 231311  
 04703 202005  
 04704 044027  
 04705 112410  
 04706 401617  
 04707 401405  
 04710 260514  
 04711 400040  
 04712 061407  
 04713 401722  
 04714 400301  
 04715 064006  
 04716 011114  
 04717 050440  
 04720 241740  
 04721 031422  
 04722 400614  
 04723 075600  
 04724 230120  
 04725 116140  
 04726 231311  
 04727 202005  
 04730 044027  
 04731 112410  
 04732 401617  
 04733 401405  
 04734 260514  
 04735 400140  
 04736 061407  
 04737 401722  
 04740 400301  
 04741 064006  
 04742 011114  
 04743 050440  
 04744 241740  
 04745 031422

MES25 .SIXBT 'SAPI0 SKIPPED WITH NO LEVEL 0 FLG OR CAF FAILED TO CLR FLG.#'

MES26 .SIXBT 'SAPI1 SKIPPED WITH NO LEVEL 1 FLG OR CAF FAILED TO CLR FLG.#'



04746 400614  
 04747 075600  
 04750 230120  
 04751 116240  
 04752 231311  
 04753 202005  
 04754 044027  
 04755 112410  
 04756 401617  
 04757 401405  
 04760 260514  
 04761 406240  
 04762 061407  
 04763 401722  
 04764 400301  
 04765 064000  
 04766 011114  
 04767 050440  
 04770 241740  
 04771 031422  
 04772 400614  
 04773 075600  
 04774 230120  
 04775 116340  
 04776 231311  
 04777 202005  
 05000 044027  
 05001 112410  
 05002 401617  
 05003 401405  
 05004 260514  
 05005 406340  
 05006 061407  
 05007 401722  
 05010 400301  
 05011 064000  
 05012 011114  
 05013 050440  
 05014 241740  
 05015 031422  
 05016 400614  
 05017 075600  
 05020 230120  
 05021 116400  
 05022 060111  
 05023 140504  
 05024 402417  
 05025 402313  
 05026 112056  
 05027 000000  
 05030 230120  
 05031 116140  
 05032 060111  
 05033 140504  
 05034 402417

MES27 ,SIXBT 'SAPI2 SKIPPED WITH NO LEVEL 2 FLG OR CAF FAILED TO CLR FLG.#'

MES28 ,SIXBT 'SAPI3 SKIPPED WITH NO LEVEL 3 FLG OR CAF FAILED TO CLR FLG.#'

MES29 ,SIXBT 'SAPI0 FAILED TO SKIP.#'

MES30 ,SIXBT 'SAPI1 FAILED TO SKIP.#'

05035 402313  
 05036 112056  
 05037 000000  
 05040 230120  
 05041 116240  
 05042 060111  
 05043 140504  
 05044 402417  
 05045 402313  
 05046 112056  
 05047 000000  
 05050 230120  
 05051 116340  
 05052 060111  
 05053 140504  
 05054 402417  
 05055 402313  
 05056 112056  
 05057 000000  
 05060 030106  
 05061 400601  
 05062 111405  
 05063 044024  
 05064 174023  
 05065 052440  
 05066 042261  
 05067 654011  
 05070 162440  
 05071 051601  
 05072 021405  
 05073 401722  
 05074 402204  
 05075 222340  
 05076 060111  
 05077 140504  
 05100 402417  
 05101 402205  
 05102 010440  
 05103 112456  
 05104 000000  
 05105 042261  
 05106 654011  
 05107 162440  
 05110 051601  
 05111 021405  
 05112 400601  
 05113 111405  
 05114 044024  
 05115 174002  
 05116 054003  
 05117 140501  
 05120 220504  
 05121 400231  
 05122 401404  
 05123 222356

MES31 ,SIXBT 'SAPI2 FAILED TO SKIP.#'

MES32 ,SIXBT 'SAPI3 FAILED TO SKIP.#'

MES33 ,SIXBT 'CAF FAILED TO SET DR15 INT ENABLE OR RDRS FAILED TO READ IT.#'

MES34 ,SIXBT 'DR15 INT ENABLE FAILED TO BE CLEARED BY LDRS.#'

#5124	#00000	
#5125	251611	MES35 .SIXBT 'UNICHANNEL15 DIAGNOSTIC IS RUNNING.0'
#5126	#310#1	
#5127	1610#5	
#5130	146165	
#5131	40#411	
#5132	#10710	
#5133	172324	
#5134	110340	
#5135	112340	
#5136	222516	
#5137	161116	
#5140	#75600	
#5141	112340	MES36 .SIXBT 'IS API AVAILABLE & TO BE TESTED? (TYPE Y OR N) 0'
#5142	#12011	
#5143	400120	
#5144	#11114	
#5145	#10214	
#5146	#54046	
#5147	402417	
#5150	400205	
#5151	402405	
#5152	232405	
#5153	#47740	
#5154	502431	
#5155	200540	
#5156	314017	
#5157	224016	
#5160	514000	
#5161	270111	MES37 .SIXBT 'WAITING FOR PDP-11 PROGRAM TO INDICATE READY TO TEST!0'
#5162	241116	
#5163	#74000	
#5164	172240	
#5165	200420	
#5166	550161	
#5167	402022	
#5170	170722	
#5171	011540	
#5172	241740	
#5173	111604	
#5174	110301	
#5175	240540	
#5176	220501	
#5177	043140	
#5200	241740	
#5201	240523	
#5202	244100	
#5203	#40124	MES38 .SIXBT 'DATA TO PDP-11 LOC 167774 CLEARED TCBP FLG.0'
#5204	114024	
#5205	174020	
#5206	#42055	
#5207	016140	
#5210	141703	
#5211	406160	
#5212	676767	

#5213	044003	
#5214	140501	
#5215	220504	
#5216	402403	
#5217	#22046	
#5220	061407	
#5221	560000	
#5222	#42261	MES39 .SIXBT 'DR11 API DONE INT ENABLE FAILED TO SET.0'
#5223	014001	
#5224	201140	
#5225	#41716	
#5226	#54011	
#5227	102440	
#5230	#51601	
#5231	021405	
#5232	400601	
#5233	111405	
#5234	#44024	
#5235	174023	
#5236	052456	
#5237	000000	
#5240	#42261	MES40 .SIXBT 'DR11 API DONE INT ENABLE FAILED TO CLEAR.0'
#5241	014001	
#5242	201140	
#5243	#41716	
#5244	#54011	
#5245	102440	
#5246	#51601	
#5247	021405	
#5250	400601	
#5251	111405	
#5252	#44024	
#5253	174003	
#5254	140501	
#5255	225600	
#5256	#42261	MES41 .SIXBT 'DR11 API DONE FLG FAILED TO CAUSE A PDP-11 INTERRUPT.0'
#5257	014001	
#5260	201140	
#5261	#41716	
#5262	#54006	
#5263	140740	
#5264	#60111	
#5265	140504	
#5266	402417	
#5267	400301	
#5270	252305	
#5271	400140	
#5272	200420	
#5273	550161	
#5274	401116	
#5275	240522	
#5276	222520	
#5277	245600	
#5300	#42261	MES42 .SIXBT 'DR11 TCBP FLG FAILED TO CAUSE A PDP-11 INTERRUPT.0'
#5301	014024	

05302 030220  
 05303 400514  
 05304 074000  
 05305 011114  
 05306 050440  
 05307 241740  
 05310 030125  
 05311 230540  
 05312 014020  
 05313 042055  
 05314 616140  
 05315 111624  
 05316 052222  
 05317 252024  
 05320 560000  
 05321 042261  
 05322 614024  
 05323 030220  
 05324 400514  
 05325 074003  
 05326 012523  
 05327 050440  
 05330 014020  
 05331 042055  
 05332 616140  
 05333 111624  
 05334 402710  
 05335 111405  
 05336 402403  
 05337 022040  
 05340 051601  
 05341 021405  
 05342 402701  
 05343 234003  
 05344 140501  
 05345 220504  
 05346 560000  
 05347 042261  
 05350 614001  
 05351 201140  
 05352 041605  
 05353 400514  
 05354 074003  
 05355 012523  
 05356 050440  
 05357 011640  
 05360 111624  
 05361 402710  
 05362 111405  
 05363 400120  
 05364 114004  
 05365 160540  
 05366 051601  
 05367 021405  
 05370 402701

MES43 ,SIXBT 'DR11 TCBP FLG CAUSED A PDP-11 INT WHILE TCBP ENABLE WAS CLEARED,0'

MES44 ,SIXBT 'DR11 API ONE FLG CAUSED AN INT WHILE API ONE ENABLE WAS CLEARED,0'

05371 234003  
 05372 140501  
 05373 220504  
 05374 560000  
 05375 012011  
 05376 400417  
 05377 160540  
 05400 061407  
 05401 400601  
 05402 111405  
 05403 044024  
 05404 174003  
 05405 140501  
 05406 224027  
 05407 100516  
 05410 401405  
 05411 260514  
 05412 406140  
 05413 100104  
 05414 400140  
 05415 220521  
 05416 250523  
 05417 244020  
 05420 051604  
 05421 111607  
 05422 560000  
 05423 012011  
 05424 400417  
 05425 160540  
 05426 061407  
 05427 400601  
 05430 111405  
 05431 044024  
 05432 174003  
 05433 140501  
 05434 224027  
 05435 100516  
 05436 401405  
 05437 260514  
 05440 406240  
 05441 100104  
 05442 400140  
 05443 220521  
 05444 250523  
 05445 244020  
 05446 051604  
 05447 111607  
 05450 560000  
 05451 012011  
 05452 400417  
 05453 163540  
 05454 061407  
 05455 400601  
 05456 111405  
 05457 044024

MES45 ,SIXBT 'API DONE FLG FAILED TO CLEAR WHEN LEVEL 1 HAD A REQUEST PENDING,0'

MES46 ,SIXBT 'API DONE FLG FAILED TO CLEAR WHEN LEVEL 2 HAD A REQUEST PENDING,0'

MES47 ,SIXBT 'API DONE FLG FAILED TO CLEAR WHEN LEVEL 3 HAD A REQUEST PENDING,0'

05460 174003  
 05461 140501  
 05462 224027  
 05463 100516  
 05464 401405  
 05465 260514  
 05466 406340  
 05467 100164  
 05470 400140  
 05471 220521  
 05472 250523  
 05473 240020  
 05474 051604  
 05475 111607  
 05476 560000  
 05477 012011  
 05500 400601  
 05501 111405  
 05502 044024  
 05503 174017  
 05504 030325  
 05505 225600  
 05506 030120  
 05507 116240  
 05510 060111  
 05511 140504  
 05512 402417  
 05513 400314  
 05514 224001  
 05515 201162  
 05516 400014  
 05517 075000  
 05520 200420  
 05521 550165  
 05522 402027  
 05523 224006  
 05524 011114  
 05525 050440  
 05526 061122  
 05527 232456  
 05530 402423  
 05531 244023  
 05532 250303  
 05533 052323  
 05534 062514  
 05535 143140  
 05536 031715  
 05537 201405  
 05540 240504  
 05541 560000  
 05542 141703  
 05543 134061  
 05544 654723  
 05545 400317  
 05546 162317

MES40 .SIXBT 'API FAILED TO OCCUR,0'

MES40 .SIXBT 'CAPI2 FAILED TO CLR API2 FLG,0'

MES50 .SIXBT 'PDP-15 PWR FAILED FIRST, TST SUCCESSFULLY COMPLETED,0'

MES51 .SIXBT 'LOCK 15'S CONSOLE, REMOVE POWER FROM SYSTEM,00

05547 140554  
 05550 402205  
 05551 151726  
 05552 054020  
 05553 172705  
 05554 224006  
 05555 221715  
 05556 402331  
 05557 232405  
 05560 155600  
 05561 200420  
 05562 556161  
 05563 400601  
 05564 111405  
 05565 044024  
 05566 174022  
 05567 050317  
 05570 260522  
 05571 400622  
 05572 171540  
 05573 201727  
 05574 052240  
 05575 160111  
 05576 142522  
 05577 055600  
 05600 200420  
 05601 556161  
 05602 402027  
 05603 224006  
 05604 011114  
 05605 050440  
 05606 061122  
 05607 232456  
 05610 402423  
 05611 244023  
 05612 250303  
 05613 052323  
 05614 062514  
 05615 143140  
 05616 031715  
 05617 201405  
 05620 240504  
 05621 560000  
 05622 750443  
 05623 401706  
 05624 401703  
 05625 240114  
 05626 402001  
 05627 232305  
 05630 234023  
 05631 111603  
 05632 054023  
 05633 240122  
 05634 240504  
 05635 565252

MES52 .SIXBT 'PDP-11 FAILED TO RECOVER FROM POWER FAILURE,0'

MES53 .SIXBT 'PDP-11 PWR FAILED FIRST, TST SUCCESSFULLY COMPLETED,0'

MES54 .SIXBT ' = # OF OCTAL PASSES SINCE STARTED,000000'

05636 525200  
05637 754014  
05640 170301  
05641 241117  
05642 164001  
05643 244027  
05644 101103  
05645 104003  
05646 011440  
05647 170303  
05650 252222  
05651 050440  
05652 042522  
05653 111007  
05654 402017  
05655 270522  
05656 402520  
05657 560000  
05660 012011  
05661 400417  
05662 160540  
05663 061407  
05664 400301  
05665 252305  
05666 044001  
05667 402004  
05670 205501  
05671 614011  
05672 162440  
05673 012440  
05674 202340  
05675 140520  
05676 051440  
05677 655000  
05700 012011  
05701 400417  
05702 160540  
05703 061407  
05704 400001  
05705 111405  
05706 044024  
05707 174003  
05710 012023  
05711 054001  
05712 402004  
05713 205501  
05714 614011  
05715 162440  
05716 012440  
05717 202340  
05720 140520  
05721 051440  
05722 645000  
05723 200302  
05724 204006

MES55 ,SIXBT 'LOCATION AT WHICH CAL OCCURRED DURING POWER UP.#'

MES56 ,SIXBT 'API DONE FLG CAUSED A PDP-11 INT AT PS LEVEL 5.#'

MES57 ,SIXBT 'API DONE FLG FAILED TO CAUSE A PDP-11 INT AT PS LEVEL 4.#'

MES58 ,SIXBT 'TCBP FLG CAUSED A PDP-11 INT AT PS LEVEL 7.#'

05725 140740  
05726 030120  
05727 230004  
05730 400140  
05731 200420  
05732 556101  
05733 401110  
05734 244001  
05735 244020  
05736 234014  
05737 052005  
05740 144067  
05741 560000  
05742 240302  
05743 204006  
05744 140740  
05745 060111  
05746 140504  
05747 402417  
05750 400301  
05751 252305  
05752 400140  
05753 200420  
05754 556101  
05755 401110  
05756 244001  
05757 244020  
05760 234014  
05761 052005  
05762 144060  
05763 560000  
05764 042201  
05765 614001  
05766 201100  
05767 400014  
05770 074003  
05771 012523  
05772 050440  
05773 014020  
05774 042005  
05775 616540  
05776 111024  
05777 402711  
05800 241040  
05801 042201  
05802 554011  
05803 162440  
05804 051501  
05805 021405  
05806 407500  
05807 500000  
05810 042201  
05811 614001  
05812 201100  
05813 400014

MES59 ,SIXBT 'TCBP FLG FAILED TO CAUSE A PDP-11 INT AT PS LEVEL 6.#'

MES60 ,SIXBT 'DR11 API0 FLG CAUSED A PDP-15 INT WITH DR15 INT ENABLE #0.#'

MES61 ,SIXBT 'DR11 API0 FLG FAILED TO CAUSE A PDP-15 INT.#'

```

06350 510000
06351 404040 MES76C .SIXBT ' 2. INSTALL ECU 8815-19. GOOD LUCK!
06352 625640
06353 111623
06354 240114
06355 144005
06356 031740
06357 020261
06360 655561
06361 715640
06362 400717
06363 170440
06364 142503
06365 134100

06366 706001 / SIOA 706001 /SKIP ON I/O DATA ACCEPTED, SKIPS ON I/O DATA
                                /ACCEPTED FLAG WHICH IS SET WHEN I1 READS TCBP.
06367 706002 CIOD 706002 /CLEAR I/O DATA ACCEPTED FLAG
06370 706004 LIOR 706004 /LOAD I/O REG. LOADS AC INTO I/O REG (NEW TCBP)
                                /FLAG, LOADS AC INTO I/O REG (BECOMES NEW TCBP)
06371 706112 RDRS 706112 /READ DR STATUS REG (BIT 17=INT ENABLE)
06372 706122 LDRS 706122 /LOAD DR STATUS REG (BIT 17=INT ENABLE)
06373 706101 SAPI0 706101 /SKIP ON DR API LEVEL 0 FLAG
06374 706121 SAPI1 706121 /SKIP ON DR API LEVEL 1 FLAG
06375 706141 SAPI2 706141 /SKIP ON DR API LEVEL 2 FLAG
06376 706161 SAPI3 706161 /SKIP ON DR API LEVEL 3 FLAG
06377 706104 CAPI0 706104 /CLEAR DR API LEVEL 0 FLAG
06400 706124 CAPI1 706124 /CLEAR DR API LEVEL 1 FLAG
06401 706144 CAPI2 706144 /CLEAR DR API LEVEL 2 FLAG
06402 706164 CAPI3 706164 /CLEAR DR API LEVEL 3 FLAG
                                .END
06403 740040 +L
06404 003444 +L
06405 000331 +L
06406 000316 +L
06407 000300 +L
06410 000310 +L
06411 125252 +L
06412 177777 +L
06413 052525 +L
06414 003456 +L
06415 000007 +L
06416 000005 +L
06417 000004 +L
06420 000006 +L
06421 003457 +L
06422 020000 +L
06423 030000 +L
06424 040000 +L
06425 050000 +L
06426 007777 +L
06427 000400 +L
06430 010000 +L
06431 777777 +L
06432 004000 +L

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06433 770000 +L
06434 000377 +L
06435 177400 +L
06436 400000 +L
06437 070000 +L
06440 130000 +L
06441 150000 +L
06442 160000 +L
06443 000001 +L
06444 100000 +L
06445 602216 +L
06446 602244 +L
06447 602270 +L
06450 602314 +L
06451 602340 +L
06452 000777 +L
06453 000207 +L
06454 000000 +L
06455 200000 +L
06456 620000 +L
06457 000200 +L
06460 000003 +L
06461 000077 +L
06462 000177 +L
06463 777672 +L
06464 003450 +L
06465 003271 +L
06466 603304 +L
06467 603343 +L
06470 017777 +L
06471 777563 +L
06472 777520 +L
06473 777510 +L
06474 777740 +L
06475 000100 +L
06476 000200 +L
06477 077777 +L

```

SIZE=06503 NO ERROR LINES

```

1          .TITLE UNICHANNEL 15 MAINDEC-15-DAUCA-B
2          .ENABL ABS
3          /
4          /COPYRIGHT 1972, 1973 DIGITAL EQUIPMENT CORP., MAYNARD, MASS. 01
5          /
6          /STARTING ADDRESS = 200
7          /RESTART ADDRESS = 1100
8          000000 R0=X0
9          000001 R1=X1
10         000002 R2=X2
11         000003 R3=X3
12         000004 R4=X4
13         000005 R5=X5
14         000006 SP=X6
15         000007 PC=X7
16         177570 DS=177570
17         177770 PSW=177770
18         167772 APIL00=167772 /LOADING BYTE CAUSES API LEVEL 0 TO 15
19         167773 APIL10=167773 /LOADING BYTE CAUSES API LEVEL 1 TO 15
20         167702 APIL20=167702 /LOADING BYTE CAUSES API LEVEL 2 TO 15
21         167703 APIL30=167703 /LOADING BYTE CAUSES API LEVEL 3 TO 15
22         167770 DRS1=167770 /BIT 6 #1 ENABLES AN INT ON BR8 WHEN
23         / API DONE (BIT 7) IS SET,
24         /BIT 7 #1 API DONE (NONE OF THE 4 API
25         / CHANNELS HAS A REQUEST PENDING
26         167774 UNS2=167774 /BIT 0 #BIT 1 OF TCBP
27         /BIT 1 #BIT 0 OF TCBP
28         /BIT 6 #1 API 2 DONE FLAG (NO REQUEST
29         / PENDING ON API LEVEL 2)
30         /BIT 7 #1 API 0 DONE FLAG (NO REQUEST
31         / PENDING ON API LEVEL 0)
32         /BITS 0&9 #01 INDICATES 4K LOCAL MEMORY
33         / #10 INDICATES 8K LOCAL MEMORY
34         /BIT 14 #1 API 3 DONE FLAG (NO REQUEST
35         / PENDING ON API LEVEL 3)
36         /BIT 15 #1 API 1 DONE FLAG (NO REQUEST
37         / PENDING ON API LEVEL 1)
38         167700 DRS3=167700 /BIT 0 #1 ENABLE TCBP INT, CAUSES INT ON
39         / BR7 WHEN TCBP IS RECEIVED FROM 15.
40         /BIT 7 #1 NEW TCBP FLAG (SET WHEN TCBP IS
41         / RECEIVED FROM 15, CLEARED WHEN 11
42         / DOES DATA TO LOC 167704)
43         167704 DRS4=167704 /CONTAINS BITS 2-17 OF TCBP
44         /
45         000200 .#200
46         000200 000137 JMP #WISTART
47         001100
48         001100 .#1100
49         /
50         01100 012700 ISTART: MOV #.,SP
51         001100
52         01104 004537 JSR R5,#WIVA
53         0005714
54         022737 CMP #1,#WINIT

```

```

000001
000410

```

06014 074006  
06015 011114  
06016 050440  
06017 241740  
06020 030125  
06021 230540  
06022 014020  
06023 042055  
06024 016540  
06025 111624  
06026 560000  
06027 042261  
06030 014001  
06031 201163  
06032 400614  
06033 074006  
06034 011114  
06035 050440  
06036 241740  
06037 030125  
06040 230540  
06041 014020  
06042 042055  
06043 016540  
06044 111624  
06045 560000  
06046 042261  
06047 014001  
06050 201162  
06051 400614  
06052 074006  
06053 011114  
06054 050440  
06055 241740  
06056 030125  
06057 230540  
06060 014020  
06061 042055  
06062 016540  
06063 111624  
06064 560000  
06065 042261  
06066 014001  
06067 201163  
06070 400614  
06071 074006  
06072 011114  
06073 050440  
06074 241740  
06075 030125  
06076 230540  
06077 014020  
06100 042055  
06101 016540  
06102 111624

MS62 .SIXBT 'DR11 API1 FLG FAILED TO CAUSE A PDP-15 INT.0'

MS63 .SIXBT 'DR11 API2 FLG FAILED TO CAUSE A PDP-15 INT.0'

MS64 .SIXBT 'DR11 API3 FLG FAILED TO CAUSE A PDP-15 INT.0'

06103 560000  
06104 311725  
06105 401001  
06106 260540  
06107 230514  
06110 050324  
06111 050440  
06112 014010  
06113 171655  
06114 053011  
06115 232401  
06116 162440  
06117 240523  
06120 244016  
06121 251502  
06122 052256  
06123 402701  
06124 112411  
06125 160756  
06126 565656  
06127 560000  
06130 040124  
06131 114024  
06132 174020  
06133 042055  
06134 010140  
06135 141703  
06136 400166  
06137 076706  
06140 044006  
06141 011114  
06142 050440  
06143 241740  
06144 230524  
06145 402403  
06146 022040  
06147 010303  
06150 052024  
06151 050456  
06152 000000  
06153 030120  
06154 115340  
06155 060111  
06156 140504  
06157 402417  
06160 400314  
06161 224001  
06162 201103  
06163 400614  
06164 075600  
06165 040124  
06166 114024  
06167 174020  
06170 042055  
06171 016140

MS65 .SIXBT 'YOU HAVE SELECTED A NON-EXISTANT TEST NUMBER, WAITING.....0'

MS66 .SIXBT 'DAT1 TO PDP-11 LOC 167764 FAILED TO SET TCBP ACCEPTED.0'

MS68 .SIXBT 'CAP13 FAILED TO CLR API3 FLG.0'

MS67 .SIXBT 'DAT1 TO PDP-11 LOC 167774 SET TCBP ACCEPTED.0'



00172	141703	
00173	400100	
00174	076707	
00175	644023	
00176	052440	
00177	240302	
00200	204001	
00201	030305	
00202	202405	
00203	045000	
00204	525252	MES70 ,SIXBT '*****THE FOLLOWING SEQUENCE OF TESTS CAUSED THE LAST TEST#'
00205	525224	
00206	100540	
00207	001714	
00210	141727	
00211	111007	
00212	402305	
00213	212505	
00214	100305	
00215	401706	
00216	402405	
00217	232423	
00220	400301	
00221	252305	
00222	044024	
00223	100540	
00224	140123	
00225	244024	
00226	052324	
00227	000000	
00230	404040	MES71 ,SIXBT ' 1ST-#'
00231	404061	
00232	232455	
00233	000000	
00234	404040	MES72 ,SIXBT ' 2ND-#'
00235	404062	
00236	100455	
00237	000000	
00240	404040	MES73 ,SIXBT ' 3RD-#'
00241	404063	
00242	220455	
00243	000000	
00244	404040	MES74 ,SIXBT ' FAILED-#'
00245	404006	
00246	011114	
00247	050455	
00250	000000	
00251	111004	MES75 ,SIXBT 'INDICATED TO FAIL ON THE FIRST PASS THROUGH THE SEQUENCE.#'
00252	110301	
00253	240504	
00254	402417	
00255	400601	
00256	111440	
00257	171040	
00260	241005	

00261	400011	
00262	222324	
00263	402001	
00264	232340	
00265	241022	
00266	172507	
00267	104024	
00270	100540	
00271	230521	
00272	250510	
00273	030550	
00274	000000	
00275	525252	MES76 ,SIXBT '***NEXM FLAG IS SET, PC = #'
00276	100530	
00277	154006	
00300	140107	
00301	401123	
00302	402305	
00303	245640	
00304	402003	
00305	407540	
00306	000000	
00307	404040	MES76A ,SIXBT ' 1. CHECK JUMPER CARD G720, A006, IN 0015.#'
00310	615640	
00311	031005	
00312	031340	
00313	122515	
00314	200522	
00315	400301	
00316	220440	
00317	076762	
00320	705440	
00321	010260	
00322	605440	
00323	111040	
00324	020261	
00325	655000	
00326	404040	MES76B ,SIXBT ' JUMPER BU1 TO BU2 SHOULD BE REMOVED (ECO 0015-12)#'
00327	404040	
00330	122515	
00331	200522	
00332	400225	
00333	614024	
00334	174002	
00335	256240	
00336	231017	
00337	251404	
00340	400205	
00341	402205	
00342	151720	
00343	050440	
00344	500503	
00345	174002	
00346	026105	
00347	556102	

```

53 01110 001400      BEQ ISTA.1          ;FIRST TIME THROUGH
54                               ;INIT I1 ADDRESS FOR COMMON MEM INTER-COMM. I1 ADDRESS FOR COMMO
55                               ;LUC (WHICH CORRESPONDS TO LOC ADDRESSED BY I5)*
56                               ;I5 ADDRESS X 2 + 20000 + 20000 IF 8K LOCAL MEM
57 01120 000000      CLR #0S13
58 01124 113700      MOVW #167775,00000000
59 01132 052700      BIS #170000,000S13
60 01140 100300 GC:   ASLB #00000000
61 01144 103000      BCC IS,A
62 01146 000700      BR GC
63 01150 013700 IS,A1 MOV #0S13,R1
64 01154 002700      ADD #402,R1
65 01160 012700      MOV #2,R2
66 01164 010100      MOV R1,#TEST
67 01170 000200      ADD R2,R1
68 01172 010100      MOV R1,#ADR
69 01176 000200      ADD R2,R1
70 01200 010100      MOV R1,#GOOD
71 01204 000200      ADD R2,R1
72 01208 010100      MOV R1,#BAD
73 01212 000200      ADD R2,R1
74 01214 010100      MOV R1,#ERRFLG
75 01220 000200      ADD R2,R1
76 01222 010100      MOV R1,#RWSA15
77 01226 000200      ADD R2,R1
78 01230 010100      MOV R1,#RWSA11
79 01234 000200      ADD R2,R1
80 01236 010100      MOV R1,#ERRIND
81 01242 000200      ADD R2,R1
82 01244 010100      MOV R1,#BRSTV
83 01250 000200      ADD R2,R1
84 01252 010100      MOV R1,#BR7TV
85 01256 000200      ADD R2,R1
86 01260 010100      MOV R1,#IDNE15
87 01264 000200      ADD R2,R1

88 01260 010100      MOV R1,#IDNE11
006404

```

```

89          f
90 01272 012777 I STA,1: MOV #125252,#GOOD      ;INDICATE LOAD TIME
      125252
      005074
91 01310 012777          MOV #=1,#IDNE11      ;IND 11 READY
      177777
      005076
92 01300 022777 I STA,2: CMP #52525,#BAD
      052525
      005002
93 01314 001374          BNE I STA.2          ;LOAD TIME?
94 01310 005077          CLR #BAD           ;YES
      005054
95 01022 012777 I STA,3: MOV #=1,#IDNE11
      177777
      005054
96 01300 005037          CLR #INIT
      006410
97 01334 005237          INC #INIT
      006410
98 01340 012737 START: MOV #340,#NPSW
      000340
      177776
99 01340 022777 STAR,1: CMP #=1,#IDNE15
      177777
      005026
100 1354 001374          BNE STAR,1          ;IS READY?
101 1350 005077          CLR #IDNE15       ;YES, CLEAR 15 READY
      005020
102 1362 022777          CMP #177,#TEST
      000177
      005010
103 1370 001414          BEQ STAR,2          ;POWER FAIL TEST?
104 1372 017701          MOV #TEST,R1       ;NO
      005002
105 1370 000301          ASL R1
106 1400 003701          ADD #NTSTTBL,R1
      000434
107 1404 011137          MOV (R1),#NTSTPNT
      006400
108 1410 000005          RESET
109 1412 004577          JSR RS,#NTSTPNT   ;EXECUTE SELECTED TEST
      004770
110 1410 000137          JMP #NSTART       ;NXT TEST
      001340
111 1422 000005 STAR,2: RESET
112 1424 004537          JSR RS,#NPNRFL
      005752
113 1430 000137          JMP #NSTART
      001340
114          ;*****
115          ;*****
116          ;TST1. 15 WRITES IN LOWER 2K, 11 READS & CHECKS IT.
117 1434 017701 I ST1: MOV #RWSA11,R1
      004730

118 1440 010102          MOV R1,R2
119 1442 004537          JSR RS,#NCNVRT   ;CONVERT 15 ADDR TO 11

```

```

005700
120 1446 022777 TST1,A: CMP #-1,@IDNE15
      177777
      004726
121 1454 021374      BNE TST1,A      ;IS DONE WRITING?
122 1456 005077      CLR @IDNE15    ;YES, CLEAR 15 DONE
      004726
123 1462 004537      JSR R5,@RLEAD2K ;READ & CHECK 2K
      005002
124 1466 012777      MOV #-1,@IDNE11 ;IND 11 DONE READING
      177777
      004710
125 1474 000205      RTS R5
126      ;*****
127      ;TST2. 15 WRITES IN UPPER 2K, 11 READS & CHECKS IT.
128 1476 017701 TST2: MOV @RMSA11,R1
      004006
129 1502 010102      MOV R1,R2
130 1504 004537      JSR R5,@CONVRT ;CONVERT 15 ADDR TO 11
      005700
131 1510 022777 TST2,A: CMP #-1,@IDNE15
      177777
      004064
132 1516 001374      BNE TST2,A      ;IS DONE WRITING?
133 1520 005077      CLR @IDNE15    ;YES, CLEAR 15 DONE
      004066
134 1524 004537      JSR R5,@RLEAD2K ;READ & CHECK 2K
      005002
135 1530 012777      MOV #-1,@IDNE11 ;IND 11 DONE READING
      177777
      004066
136 1536 000205      RTS R5
137      ;*****
138      ;TST3. 11 WRITES IN LOWER 2K, 15 READS & CHECKS IT.
139 1540 017701 TST3: MOV @RMSA11,R1
      004024
140 1544 010102      MOV R1,R2
141 1546 004537      JSR R5,@CONVRT
      006264
142 1552 012777      MOV #-1,@IDNE11 ;IND 11 DONE WRITING
      177777
      004024
143 1560 000205      RTS R5
144      ;*****
145      ;TST4. 11 WRITES IN UPPER 2K, 15 READS & CHECKS IT
146 1562 017701 TST4: MOV @RMSA11,R1
      004002
147 1566 010102      MOV R1,R2
148 1570 004537      JSR R5,@CONVRT
      006204
149 1574 012777      MOV #-1,@IDNE11 ;IND 11 DONE WRITING
      177777
      004002
150 1582 000205      RTS R5
151      ;*****

```

```

152      ;TST5. 15 WRITES IN LOWER 2K WHILE 11 IS WRITING IN UPPER 2K, 11
153 ;READS & CHECKS LOWER 2K WHILE 15 IS READING & CHECKING UPPER 2K

```

```

154 1604 017701 TST01  MOV #RWSA11,R1
    004560
155 1610 010102      MOV R1,R2
156 1612 004537      JSR R5,#@CONVRT      ;CONVERT 15 ADDR TO 11
    006264
157 1616 004537      JSR R5,#@DTST
    005530
158 1622 017701      MOV #RWSA11,R1
    004542
159 1626 010102      MOV R1,R2
160 1630 004537      JSR R5,#@CNVRT      ;CONVERT 15 ADDR TO 11
    005700
161 1634 004537      JSR R5,#@READ2K     ;READ & CHECK LOWER 2K
    005002
162 1640 012777      MOV #-1,@IDNE11    ;IND 11 DONE READING
    177777
    004530
163 1646 000205      RTS R5
164
165 *****
166 ***** ;*****165 *****
167 ;TST6. 11 WRITES IN LOWER 2K WHILE 15 IS WRITING IN UPPER 2K,15
168 ;HEADS & CHECKS LOWER 2K WHILE 11 IS READING & CHECKING UPPER 2K
169 1650 017701 TST61  MOV #RWSA11,R1
    004514
170 1654 010102      MOV R1,R2
171 1656 004537      JSR R5,#@CONVRT
    006264
172 1662 004537      JSR R5,#@DTST
    005530
173 1666 017701      MOV #RWSA11,R1
    004470
174 1672 010102      MOV R1,R2
175 1674 004537      JSR R5,#@CNVRT      ;CONVERT 15 ADDRESS TO 11
    005700
176 1700 004537      JSR R5,#@READ2K     ;READ & CHECK UPPER 2K
    005002
177 1704 012777      MOV #-1,@IDNE11    ;IND 11 DONE READING
    177777
    004472
178 1712 000205      RTS R5
179 *****
180 ***** ;*****165 *****
181 ;TST7. 15 WRITES IN LOWER 2K, 11 READS & CHECKS IT WHILE 15 IS
182 ;WRITING IN UPPER 2K.
183 1714 017701 TST71  MOV #RWSA11,R1
    004450
184 1720 010102      MOV R1,R2
185 1722 004537      JSR R5,#@CNVRT      ;CONVERT 15 ADDR TO 11
    005700
186 1726 022777 TST7.A1 CMP #-1,@IDNE15
    177777
    004440
187 1734 001374      BNE TST7.A         ;15 DONE WRITING?
188 1736 005077      CLR @IDNE15       ;YES. CLR 15 DONE
    004440
189 1742 004537      JSR R5,#@READ2K     ;READ & CHECK LOWER 2K WHILE 15
    005002
190 1746 012777      MOV #-1,@IDNE11    ;IND 11 DONE

```

```

17777
004430
189 1754 000205          RTS R5
190
191          ;*****
192          ;TST10. 15 WRITES IN UPPER 2K, 11 READS & CHECKS IT WHILE 15 IS
193          ;WRITING IN LOWER 2K.
193 1756 017701          TST10:  MOV #RNSA11,R1
          004406
194 1762 010102          MOV R1,R2
195 1764 004537          JSR R5,#CONVRT          ;CONVERT 15 ADDR TO 11
          005700
196 1770 022777          TST10A: CMP #-1,#IDNE15
          177777
          004404
197 1776 001374          BNE TST10A          ;15 DONE WRITING?
198 2000 005077          CLR #IDNE15          ;YES, CLR 15 DONE
          004376
199 2004 004537          JSR R5,#HEAD2K          ;RD & CHK UPPER 2K WHILE 15 WRTS
          005602
200 2010 012777          MOV #-1,#IDNE11          ;IND 11 DONE
          177777
          004366
201 2016 000205          RTS R5
202          ;*****
203          ;TST11. 11 WRITES IN LOWER 2K, 15 READS & CHECKS IT WHILE 11 IS
204          ;WRITING IN UPPER 2K.
205 2020 017701          TST11:  MOV #RNSA11,R1
          004344
206 2024 010102          MOV R1,R2
207 2026 004537          JSR R5,#CONVRT
          006264
208 2032 004537          JSR R5,#DST
          005530
209 2036 017701          MOV #RNSA11,R1
          004326
210 2042 010102          MOV R1,R2
211 2044 004537          JSR R5,#CONVRT
          006264
212 2050 012777          MOV #-1,#IDNE11          ;IND 11 DONE
          177777
          004326
213 2056 000205          RTS R5
214          ;*****
215          ;*****
216          ;TST12. 11 WRITES IN UPPER 2K, 15 READS & CHECKS IT WHILE 11 IS
217          ;WRITING IN LOWER 2K.
218 2060 017701          TST12:  MOV #RNSA11,R1
          004304
219 2064 010102          MOV R1,R2
220 2066 004537          JSR R5,#CONVRT
          006264
221 2072 004537          JSR R5,#DST
          005530
222 2076 017701          MOV #RNSA11,R1
          004266

223 2102 010102          MOV R1,R2
224 2104 004537          JSR R5,#CONVRT

```

```

006204
225 2110 012777      MOV #-1,0IDNE11      JIND 11 DONE
177777
004206
226 2110 000205      RTS R5
227                ;*****
228                ;TST13, 11 WRITES ALL ONES IN LOW ORDER BYTES OF LOWER 2K WHILE
229                ;IS WRITING =1 IN UPPER 2K, 15 READS & CHECKS LOWER 2K WHILE 11
230                ;READING & CHECKING LOW ORDER BYTES IN UPPER 2K.
231 2120 017701      TST13:  MOV #RNSA11,R1
004244
232 2124 004537      JSR R5,#NCVRT
005700
233 2130 012737      MOV #4000,#WCNT
004000
006420
234 2130 004537      TST13A: JSR R5,#NDLY
006276
235 2142 112721      MOVB #-1,(R1)+      JNRT A LOC
177777
236 2146 005201      INC R1
237 2150 005337      DEC #WCNT
006420
238 2154 001370      BNE TST13A          JDONE?
239 2150 004537      JSR R5,#MDTST
005530
240 2162 017701      MOV #RNSA11,R1
004202
241 2160 010102      MOV R1,R2
242 2170 004537      JSR R5,#NCVRT
005700
243 2174 012737      MOV #4000,#WCNT
004000
006422
244 2202 004537      TST13B: JSR R5,#NDLY
006276
245 2200 122721      CMPEB #377,(R1)+
000377
246 2212 001007      BNE TST13C          JDATA CORRECT?
247 2214 005201      INC R1              JYES
248 2210 005202      INC R2
249 2220 005337      DEC #WCNT
006422
250 2224 001300      BNE TST13B          JDONE?
251 2220 000137      JMP #TST13D        JYES
002276
252 2232 012777      TST13C: MOV #-1,0ERRIND
177777
004150
253 2240 022777      CMP #-1,0ERRFLG
177777
004124
254 2240 001413      BEQ TST13D
255 2250 012777      MOV #-1,0ERRFLG
177777

004114
256 2256 010277      MOV R2,#ADR

```

```

#04140
257 2262 #12777      MOV #377,#GOOD
#00377
#04104
258 2270 #05501      DEC R1
259 2272 114177     MOV# -(R1),#BAD
#04100
260 2270 #12777 TST130: MOV #-1,#IDONE11
177777
#04100
261 2304 #00205      RTS R5
262 ;*****
263 ;*****
264 ;TST14. 11 WRITES ALL ONES IN HIGH ORDER BYTES OF LOWER 2K WHILE
265 ;15 IS WRITING -1 IN UPPER 2K, 15 READS & CHECKS LOWER 2K WHILE
266 ;READING & CHECKING HIGH ORDER BYTES IN UPPER 2K,
267 2306 #17701 TST14: MOV #RNSA11,R1
#04056
268 2312 #04537      JSR R5,#CNVRT
#05700
269 2310 #12737      MOV #4800,#WCNT
#04000
270 2324 #04537 TST14A: JSR R5,#DLY
#06270
271 2330 #05201      INC R1
272 2332 112721     MOV# #-1,(R1)+      INRT LOC
177777
273 2330 #05337      DEC #WCNT
#06420
274 2342 #01370      BNE TST14A         IDONE?
275 2344 #04537      JSR R5,#MDT8T
#05530
276 2350 #17701      MOV #RNSA11,R1
#04014
277 2354 #10102      MOV R1,R2
278 2350 #04537      JSR R5,#CNVRT
#05700
279 2362 #12737      MOV #4800,#WCNT
#04000
280 2370 #04537 TST14B: JSR R5,#DLY
#06270
281 2374 #05201      INC R1
282 2370 122721     CMPB #377,(R1)+
#06377
283 2402 #01000      BNE TST14C         IDATA CORRECT?
284 2404 #05202      INC R2
285 2400 #05337      DEC #WCNT
#06422
286 2412 #01300      BNE TST14B         IDONE?
287 2414 #00137      JMP #TST14D        IYES
#02470
288 2420 #12777 TST14C: MOV #-1,#ERRIND
177777

#03762
289 2426 #22777     CMP #-1,#ERRFLG

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177777
003756
290 2434 001415      BEG TST140
291 2436 012777      MOV #=1,0ERRFLG
177777
003726
292 2444 010277      MOV R2,0ADN
003706
293 2450 012777      MOV #177400,0GOOD
177400
003716
294 2450 014177      MOV =(R1),0BAD
003714
295 2462 042777      BIC #377,0BAD
000377
003706
296 2470 012777      TST140: MOV #=1,0IDNE11
177777
003706
297 2476 000205      RTS R5
298 ;
299 ;
300 ;TST15. TEST FOR TCBP FLG TO BE SET BY LIOR,
301 2500 105737      TST15: TSTB #0DKS3
167706
302 2504 100402      BMI TST15A      )TCBP FLG SET?
303 2506 004537      JSR R5,0METST
005512
304 2512 012777      TST15A: MOV #=1,0IDNE11      )IND 11 DONE
177777
003064
305 2520 000205      RTS R5
306 ;
307 ;TST16. TEST FOR DATI FROM LOC 167764 TO CLEAR TCBP FLG.
308 2522 013737      TST16: MOV #0DRS4,0DRS4      )DATI
167764
167764
309 2530 105737      TSTB #0DKS3
167706
310 2534 100002      BPL TST16A      )TCBP FLG CLR?
311 2536 004537      JSR R5,0METST
005512
312 2542 012777      TST16A: MOV #=1,0IDNE11      )IND 11 DONE
177777
003034
313 2550 000205      RTS R5
314 ;
315 ;TST17. TEST FOR DATI FROM LOC 167774 TO NOT CLEAR TCBP FLG.
316 2552 013737      TST17: MOV #0DRS2,0DRS2      )DATI
167774
167774
317 2560 105737      TSTB #0DRS3
167706
318 2564 100402      BMI TST17A      )TCBP FLG SET?
319 2566 004537      JSR R5,0METST

005512
320 2572 012777      TST17A: MOV #=1,0IDNE11

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177777
003604
J21 2000 000205      RTS R5
J22                ;*****
J23                ;TST20. TEST FOR TCBP ACCEPTED WITH SIDA,
J24 2002 000205      TST20:  RTS R5
J25                ;*****
J26                ;TST21. CLEAR TCBP ACCEPTED FLG WITH CIOD & TEST SIDA FOR NO SKI
J27 2004 000205      TST21:  RTS R5
J28                ;*****
J29                ;TST22. TEST FOR TCBP ACCEPTED TO BE SET BY DOING A DATI TO LOC
J30                ;167764 IN PDP-11.
J31 2006 013737      TST22:  MOV #NDRS4,#NDRS4      ;DATI
                167764
                167764
J32 2014 012777      MOV #=-1,#IDNE11
                177777
                003562
J33 2022 000205      RTS R5
J34                ;*****
J35                ;TST23. TEST FOR TCBP ACCEPTED TO NOT BE SET BY DOING A DATI TO
J36                ;167774 IN PDP-11.
J37 2024 013737      TST23:  MOV #NDRS2,#NDRS2      ;DATI
                167774
                167774
J38 2032 012777      MOV #=-1,#IDNE11
                177777
                003544
J39 2040 000205      RTS R5
J40                ;*****
J41                ;*****
J42                ;TST24. TESTS FOR CORRECT TRANSMISSION OF TCBP FROM 15 TO 11.
J43 2042 005037      TST24:  CLR #NTMPCNT
                006000
J44 2040 105737      TST24A: TSTB #NDRS3
                167760
J45 2052 100416      BMI TST24C      ;NEW TCBP?
J46 2054 022777      CMP #=-1,#ERRFLG
                177777
                003510
J47 2062 001411      BEQ TST24B
J48 2064 005237      INC #NTMPCNT
                006360
J49 2070 001422      BEQ TST24D
J50 2072 022777      CMP #=-1,#IDNE15      ;NO
                177777
                003502
J51 2700 001302      BNE TST24A      ;15 DONE?
J52 2702 005077      CLR #IDNE15      ;CLR 15 DONE
                003474
J53 2700 000205      TST24B: RTS R5
J54 2710 013777      TST24C: MOV #NDRS2,#RWSA15      ;BITS 0 & 1 OF TCBP
                167774
                003450
J55 2710 042777      BIC #177774,#RWSA15      ;MASK OFF OTHERS

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177774  
003442

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356 2724 013777      MOV #DRS4,#RWSA11      ;BITS 2-17 OF TCBP
      167764
      003430
357 2732 000137      JMP #TST24
      002642
358 2/36 012777 TST240: MOV #-1,#IDNE11
      177777
      003440
359 2744 000205      RTS R5
360      ;*****
361      ;TST25. TEST FOR API 0 DONE FLG TO BE SET.
362 2746 105737 TST25: TSTB #WDRS2
      167774
363 2752 100402      BMI TST25A      ;API 0 DONE SET?
364 2754 004537      JSR R5,#METST   ;NO
      005512
365 2760 012777 TST25A: MOV #-1,#IDNE11      ;IND 11 DONE
      177777
      003416
366 2766 000205      RTS R5
367      ;*****
368      ;TST26. TEST FOR API 1 DONE FLG TO BE SET.
369 2770 005737 TST26: TST #DRS2
      167774
370 2/74 100402      BMI TST26A      ;API 1 DONE SET?
371 2776 004537      JSR R5,#METST   ;NO
      005512
372 3002 012777 TST26A: MOV #-1,#IDNE11
      177777
      003374
373 3010 000205      RTS R5
374      ;*****
375      ;TST27. TEST FOR API 2 DONE FLG TO BE SET.
376 3012 032737 TST27: BIT #100,#WDRS2
      000100
      167774
377 3020 001002      BNE TST27A      ;API 2 DONE SET?
378 3022 004537      JSR R5,#METST   ;NO
      005512
379 3026 012777 TST27A: MOV #-1,#IDNE11
      177777
      003350
380 3034 000205      RTS R5
381      ;*****
382      ;*****
383      ;TST30. TEST FOR API 3 DONE FLG TO BE SET.
384 3036 032737 TST30: BIT #40000,#WDRS2
      040000
      167774
385 3044 001002      BNE TST30A      ;API 3 DONE SET?
386 3046 004537      JSR R5,#METST   ;NO
      005512
387 3052 012777 TST30A: MOV #-1,#IDNE11
      177777
      003324

388 3060 000205      RTS R5
389      ;*****

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390          ;TSTJ1. TEST FOR API DONE FLG TO BE SET.
391 3062 105737 TST31: TSTB #WDRS1
          167770
392 3060 100402      BHI TST31A          ;API DONE SET?
393 3070 004537      JSR R5,#NETST      ;NO
          005512
394 3074 012777 TST31A: MOV #=1,#IDNE11      ;IND 11 DONE
          177777
          003302
395 3102 000205      RTS R5
396          ;*****
397          ;TSTJ2. TEST FOR SAPI0 TO SKIP.
398 3104 110037 TST32: MOV8 R0,#NAPIL0B      ;SET API L0
          167772
399 3110 012777      MOV #=1,#IDNE11
          177777
          003206
400 3116 000205      RTS R5
401          ;*****
402          ;TSTJ3. TEST FOR SAPI1 TO SKIP.
403 3120 110037 TST33: MOV8 R0,#NAPIL1B      ;SET API L1
          167773
404 3124 012777      MOV #=1,#IDNE11
          177777
          003202
405 3132 000205      RTS R5
406          ;*****
407          ;TSTJ4. TEST FOR SAPI2 TO SKIP.
408 3134 110037 TST34: MOV8 R0,#NAPIL2B      ;SET API L2
          167762
409 3140 012777      MOV #=1,#IDNE11
          177777
          003236
410 3146 000205      RTS R5
411          ;*****
412          ;TSTJ5. TEST FOR SAPI3 TO SKIP.
413 3150 110037 TST35: MOV8 R0,#NAPIL3B      ;SET API L3
          167763
414 3154 012777      MOV #=1,#IDNE11
          177777
          003222
415 3162 000205      RTS R5
416          ;*****
417          ;TSTJ6. TEST SAPI0 FOR NO SKIP.
418 3164 110037 TST36: MOV8 R0,#NAPIL1B      ;SET API L1
          167773
419 3170 110037      MOV8 R0,#NAPIL2B      ;SET API L2
          167762
420 3174 110037      MOV8 R0,#NAPIL3B      ;SET API L3
          167763
421 3200 012777      MOV #=1,#IDNE11
          177777
          003176
422 3206 000205      RTS R5
423          ;*****

424          ;*****
425          ;TSTJ7. TEST SAPI1 FOR NO SKIP.

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426 3210 110037 TST37: MOVB R0,#NAPIL0B      ;SET API L0
      167772
427 3214 110037      MOVB R0,#NAPIL2B      ;SET API L2
      167762
428 3220 110037      MOVB R0,#NAPIL3B      ;SET API L3
      167763
429 3224 012777      MOV #=1,#IDNE11
      177777
      003152
430 3232 000205      RTS R5
431      ;*****
432      ;TST40. TEST SAPI2 FOR NO SKIP.
433 3234 110037 TST40: MOVB R0,#NAPIL0B      ;SET API L0
      167772
434 3240 110037      MOVB R0,#NAPIL1B      ;SET API L1
      167773
435 3244 110037      MOVB R0,#NAPIL3B      ;SET API L3
      167763
436 3250 012777      MOV #=1,#IDNE11
      177777
      003152
437 3250 000205      RTS R5
438      ;*****
439      ;TST41. TEST SAPI3 FOR NO SKIP.
440 3260 110037 TST41: MOVB R0,#NAPIL0B      ;SET API L0
      167772
441 3264 110037      MOVB R0,#NAPIL1B      ;SET API L1
      167773
442 3270 110037      MOVB R0,#NAPIL2B      ;SET API L2
      167762
443 3274 012777      MOV #=1,#IDNE11
      177777
      003102
444 3302 000205      RTS R5
445      ;*****
446      ;TST42. TEST CAPI0 TO CLEAR API0 FLG.
447 3304 110037 TST42: MOVB R0,#NAPIL0B      ;SET API L0
      167772
448 3310 110037      MOVB R0,#NAPIL1B      ;SET API L1
      167773
449 3314 110037      MOVB R0,#NAPIL2B      ;SET API L2
      167762
450 3320 110037      MOVB R0,#NAPIL3B      ;SET API L3
      167763
451 3324 012777      MOV #=1,#IDNE11
      177777
      003052
452 3332 000205      RTS R5
453      ;*****
454      ;TST43. TEST CAPI1 TO CLEAR API1 FLG.
455 3334 110037 TST43: MOVB R0,#NAPIL0B
      167772
456 3340 110037      MOVB R0,#NAPIL1B
      167773
457 3344 110037      MOVB R0,#NAPIL2B

      167762
458 3350 110037      MOVB R0,#NAPIL3B

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167763
459 3354 #12777      MOV #=1,#IDNE11
      177777
      #002022
460 3362 #002025      RTS R5
461      ;*****
462      ;TST44. TEST CAPI2 TO CLEAR API2 FLG.
463 3364 110037      TST44: MOVB RB,#NAPIL0B
      167772
464 3370 110037      MOVB RB,#NAPIL1B
      167773
465 3374 110037      MOVB RB,#NAPIL2B
      167762
466 3400 110037      MOVB RB,#NAPIL3B
      167763
467 3404 #12777      MOV #=1,#IDNE11
      177777
      #02772
468 3412 #002025      RTS R5
469      ;*****
470      ;TST45. TEST CAPI3 TO CLEAR API3 FLG.
471 3414 110037      TST45: MOVB RB,#NAPIL0B
      167772
472 3420 110037      MOVB RB,#NAPIL1B
      167773
473 3424 110037      MOVB RB,#NAPIL2B
      167762
474 3430 110037      MOVB RB,#NAPIL3B
      167763
475 3434 #12777      MOV #=1,#IDNE11
      177777
      #02742
476 3442 #002025      RTS R5
477      ;*****
478      ;*****
479      ;TST46. TEST FOR DR15 INT ENABLE SET USING RDRS IDT.
480 3444 #002025      TST46: RTS R5
481      ;*****
482      ;TST47. TEST FOR DR15 INT ENABLE BEING CLEARED BY LDRS IDT.
483 3446 #002025      TST47: RTS R5
484      ;*****
485      ;TST50. TEST FOR DR15 INT ENABLE BEING SET BY LDRS IDT.
486 3450 #002025      TST50: RTS R5
487      ;*****
488      ;TST51. TEST FOR CORRECT API LEVEL REQ WHEN 11 INDICATES LEVEL 0
489 3452 110037      TST51: MOVB RB,#NAPIL0B      ;SET API LB
      167772
490 3456 #12777      MOV #=1,#IDNE11
      177777
      #02720
491 3464 #002025      RTS R5
492      ;*****
493      ;TST52. TEST FOR API LEVEL 0 DONE FLG (ONLY) TO CLR.
494 3466 110037      TST52: MOVB RB,#NAPIL0B      ;SET API LB
      167772

495 3472 #13737      MOV #NDRS2,#TEMP
      167774

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006432
496 3500 042737 BIC #37477,0#TEMP
      037477
      006432
497 3500 022737 CMP #140100,0#TEMP
      140100
      006432
498 3514 001402 BEQ TST52A JONLY L0 DONE CLR?
499 3510 004537 JSR R0,0#ETST JNO
      005512
500 3522 012777 TST52A: MOV #-1,0IDNE11
      177777
      002054
501 3530 002054 RTS R5
502 ;*****
503 ;
504 ;*****
505 ;TST53. TEST FOR CORRECT API LEVEL REQ WHEN 11 INDICATES LEVEL 1
506 3532 110037 TST53: MOV# R0,0#APIL1B JSET API L1
      167773
507 3530 012777 MOV #-1,0IDNE11
      177777
      002040
508 3544 002040 RTS R5
509 ;*****
510 ;TST54. TEST FOR API LEVEL 1 DONE FLG (ONLY) TO CLR.
511 3540 110037 TST54: MOV# R0,0#APIL1B JSET API L1
      167773
512 3552 013737 MOV #0DHS2,0#TEMP
      167774
      006432
513 3560 042737 BIC #37477,0#TEMP
      037477
      006432
514 3560 022737 CMP #40300,0#TEMP
      040300
      006432
515 3574 001402 BEQ TST54A JONLY L1 CLR?
516 3570 004537 JSR R0,0#ETST JNO
      005512
517 3002 012777 TST54A: MOV #-1,0IDNE11
      177777
      002074
518 3010 002074 RTS R5
519 ;*****
520 ;TST55. TEST FOR CORRECT API LEVEL REQ WHEN 11 INDICATES LEVEL 2
521 3012 110037 TST55: MOV# R0,0#APIL2B JSET API L2
      167702
522 3010 012777 MOV #-1,0IDNE11
      177777
      002060
523 3024 002060 RTS R5
524 ;*****
525 ;*****
526 ;TST56. TEST FOR API LEVEL 2 DONE FLG (ONLY) TO CLR.

527 3026 110037 TST56: MOV# R0,0#APIL2B JSET API L2
      167702

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528 3032 013737      MOV #NDRS2,#NTEMP
      167774
      006432
529 3040 042737      BIC #37477,#NTEMP
      037477
      006432
530 3040 022737      CMP #140200,#NTEMP
      140200
      006432
531 3054 001402      BEQ TST56A          /ONLY L2 DONE CLR?
532 3056 004537      JSR R5,#NTEST      /NO
      005512
533 3002 012777 TST56A: MOV #-1,#IDNE11
      177777
      002514
534 3070 000205      RTS R5
535
536 /*****
537 3072 110037 TST57: TEST FOR CORRECT API LEVEL REQ WHEN 11 INDICATES LEVEL 3
      167703 TST57: MOVB R0,#APIL3B          /SET API L3
538 3070 012777      MOV #-1,#IDNE11
      177777
      002500
539 3704 000205      RTS R5
540 /*****
541 /TST60. TEST FOR API LEVEL 3 DONE FLG (ONLY) TO CLR.
542 3706 110037 TST60: MOVB R0,#APIL3B          /SET API L3
      167703
543 3712 013737      MOV #NDRS2,#NTEMP
      167774
      006432
544 3720 042737      BIC #37477,#NTEMP
      037477
      006432
545 3720 022737      CMP #100300,#NTEMP
      100300
      006432
546 3734 001402      BEQ TST60A          /ONLY L3 DONE CLR?
547 3736 004537      JSR R5,#NTEST      /NO
      005512
548 3742 012777 TST60A: MOV #-1,#IDNE11
      177777
      002434
549 3750 000205      RTS R5
550 /*****
551 /TST61. TEST FOR API DONE FLG TO BE CLR WHEN API LEVEL 0
552 /HAS A REQUEST PENDING.
553 3752 110037 TST61: MOVB R0,#APIL0B          /SET API L0
      167772
554 3750 032737      BIT #200,#NDRS1
      000200
      167770
555 3704 001402      BEQ TST61A          /API CLR?
556 3706 004537      JSR R5,#NTEST      /NO
      005512

557 3772 012777 TST61A: MOV #-1,#IDNE11
      177777

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002404
558 4000 000205      RTS R5
559          ;*****
560          ;TST62. TEST FOR API DONE FLG TO BE CLR WHEN API LEVEL 1
561          ;HAS A REQUEST PENDING.
562 4002 110037 TST62: MOVW R0,#API11B      ;SET API L1
          167773
563 4000 032737      BIT #200,#DRS1
          000200
          167770
564 4014 001402      BEQ TST62A      ;API CLR?
565 4010 004537      JSR R5,#ETST
          005512
566 4022 012777 TST62A: MOV #1,#IDNE11
          177777
          002354
567 4030 000205      RTS R5
568          ;*****
569          ;TST63. TEST FOR API DONE FLG TO BE CLR WHEN API LEVEL 2
570          ;HAS A REQUEST PENDING.
571 4032 110037 TST63: MOVW R0,#API12B      ;SET API L2
          167762
572 4030 032737      BIT #200,#DRS1
          000200
          167770
573 4044 001402      BEQ TST63A      ;API CLR?
574 4040 004537      JSR R5,#ETST
          005512
575 4052 012777 TST63A: MOV #1,#IDNE11
          177777
          002324
576 4060 000205      RTS R5
577          ;*****
578          ;TST64. TEST FOR API DONE FLG TO BE CLR WHEN API LEVEL 3
579          ;HAS A REQUEST PENDING.
580 4062 110037 TST64: MOVW R0,#API13B      ;SET API L3
          167763
581 4060 032737      BIT #200,#DRS1
          000200
          167770
582 4074 001402      BEQ TST64A      ;API CLR?
583 4070 004537      JSR R5,#ETST
          005512
584 4102 012777 TST64A: MOV #1,#IDNE11
          177777
          002274
585 4110 000205      RTS R5
586          ;*****
587          ;TST65. TEST API DONE INT ENABLE TO SET.
588          ;TST65: MOV #100,#DRS1      ;SET INT ENABLE
589 4112 012737
          000100
          167770
590 4120 032737      BIT #100,#DRS1
          000100

          167770
591 4120 001002      BNE TST65A      ;INT ENABLE SET?

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592 4130 004537      JSR R5,#NETST      JND
      005512
593 4134 012777 TST65A: MOV #-1,#IDNE11
      177777
      002242
594 4142 000205      RTS R5
595      ;*****
596      ;TST66. TEST API DONE INT ENABLE TO CLEAR.
597 4144 012737 TST66: MOV #100,#DRS1      JSET ENABLE
      000100
      167770
598 4152 042737      BIC #100,#DRS1      JCLEAR IT
      000100
      167770
599 4160 032737      BIT #100,#DRS1
      000100
      167770
600 4160 001402      BEQ TST66A          JINT ENABLE CLEAR
601 4170 004537      JSR R5,#NETST      JND
      005512
602 4174 012777 TST66A: MOV #-1,#IDNE11
      177777
      002202
603 4202 000205      RTS R5
604      ;*****
605      ;TST67. CLEAR API DONE ENABLE AND TEST FOR NO PDP-11 INTERRUPT
606      ;FROM API DONE.
607 4204 017700 TST67: MOV #DRSTV,R0
      002202
608 4210 012720      MOV #TST67B,(R0)+
      004200
609 4214 012710      MOV #J40,(R0)
      000340
610 4220 012737      MOV #-100,#THPCNT
      177700
      006300
611 4220 042737      BIC #100,#DRS1      JCLR ENABLE
      000100
      167770
612 4234 005037      CLR #PSW
      177770
613 4240 005237 TST67A: INC #THPCNT
      006300
614 4244 001370      BNE TST67A
615 4240 012737      MOV #J40,#PSW
      000340
      177770
616 4254 000137      JMP #TST67C
      004200
617 4260 004537 TST67B: JSR R5,#NETST
      005512
618 4264 022020      CMP (SP)+,(SP)+
619 4260 004537 TST67C: JSR R5,#PIVA
      005714
620 4272 012777      MOV #-1,#IDNE11

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177777  
002104

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021 4300 000205      RTS R5
022                ;*****
023                ;*****
024                ;TST70, CLEAR TCBP ENABLE AND TEST FOR NO PDP-11 INTERRUPT
025                ;FROM TCBP FLG.
026 4302 017700      TST70: MOV #BR7TV,R0
                   002100
027 4306 012720      MOV #TST70B,(R0)+
                   004302
028 4312 012710      MOV #340,(R0)
                   000340
029 4316 012737      MOV #-100,#NTHPCNT
                   177700
                   006300
030 4324 042737      BIC #100,#NDRS3
                   000100
                   167700
031 4332 004537      JSR R5,#NDTST
032 4336 005037      CLR #NPSW
                   17777b
033 4342 005237      TST70A: INC #NTHPCNT
                   006300
034 4346 001375      BNE TST70A
035 4350 012737      MOV #340,#NPSW
                   000340
                   17777b
036 4356 000137      JMP #NTST70C
                   004370
037 4362 004537      TST70B: JSR R5,#NETST
                   005512
038 4366 02262b      CMP (SP)+,(SP)+
039 4370 013737      TST70C: MOV #NDRS4,#NDRS4
                   167764
                   167764
040 4376 004537      JSR R5,#NIVA
                   005714
041 4402 012777      MOV #-1,#IDNE11
                   177777
                   001774
042 4410 000205      RTS R5
043                ;*****
044                ;TST71, TEST FOR API DONE TO CAUSE A PDP-11 INT TO CORRECT VECTO
045                ;ADDRESS.
046 4412 017700      TST71: MOV #BR5TV,R0
                   001774
047 4416 012720      MOV #TST71C,(R0)+      ;INIT TRAP
                   004506
048 4422 012710      MOV #340,(R0)
                   000340
049 4426 005037      CLR #NTHPCNT
                   006300
050 4432 005037      CLR #NPSW
                   17777b
051 4436 012737      MOV #100,#NDRS1      ;SET ENABLE

```

000100  
167770

```

052 4444 005237 TST71A: INC #THPCNT
006366
053 4450 001375 BNE TST71A JWAIT FOR INT
054 4452 012737 MOV #340,#PSW
000340
177776
055 4460 004537 JSR R5,#NETST
005512
056 4464 042737 TST71B: BIC #100,#DRS1
000100
167770
057 4472 004537 JSR R5,#NIVA
005714
058 4476 012777 MOV #-1,#IDNE11
177777
001700
059 4504 000205 RTS R5
060 4506 022626 TST71C: CMP (SP)+,(SP)+
001 4510 000137 JMP #TST71B
004464

062 ;*****
063 ;*****
064 ;TST72. TEST FOR TCBP TO CAUSE A PDP-11 INT TO CORRECT VECTOR
065 ;ADDRESS.
066 4514 017700 TST72: MOV #B^TV,R0
001674
067 4520 012720 MOV #TST72C,(R0)+ JINIT TRAP
004614
068 4524 012710 MOV #340,(R0)
000340
069 4530 005037 CLR #THPCNT
006366
070 4534 004537 JSR R5,#NETST
005530
071 4540 005037 CLR #PSW
177776
072 4544 012737 MOV #100,#DRS3 JSET ENABLE
000100
167760
073 4552 005237 TST72A: INC #THPCNT
006366
074 4556 001375 BNE TST72A JWAIT
075 4560 012737 MOV #340,#PSW
000340
177776
076 4566 004537 JSR R5,#NETST
005512
077 4572 042737 TST72B: BIC #100,#DRS3
000100
167760
078 4080 004537 JSR R5,#NIVA
005714
079 4084 012777 MOV #-1,#IDNE11
177777
001572

080 4612 000205 RTS R5
081 4614 022626 TST72C: CMP (SP)+,(SP)+

```

```

002 4016 000137      JMP #TST72B
      004572
003      ;*****
004      ;TST73. TEST FOR API DONE TO CAUSE A PDP-11 INT AT CORRECT BR
005      ;LEVEL.
006 4022 017700      TST73I  MOV #BR5TV,R0
      001504
007 4026 012720      MOV #TST73E,(R0)+      ;INIT TRAP
      004740
008 4032 012710      MOV #340,(R0)
      000340
009 4036 012737      MOV #-100,#TMPCNT
      177700
010 4044 012737      MOV #240,#PSW          ;SET FOR BR5
      006300
      000240
      177770
011 4052 012737      MOV #100,#DRS1       ;SET ENABLE
      000100
      107770
012 4060 005237      TST73AI INC #TMPCNT
      000500
013 4064 001375      BNE TST73A           ;WAIT
014 4066 004537      JSR R0,#NDTST
      005530
015 4072 012740      MOV #TST73F,=(R0)    ;INIT TRAP
      004754
016 4076 012737      MOV #200,#PSW        ;SET FOR BR4
      000200
      177770
017 4704 005237      TST73BI INC #TMPCNT
      000500
018 4710 001375      BNE TST73B
019 4712 004537      TST73CI JSR R5,#RETST
      005512
020 4716 012737      TST73DI MOV #340,#PSW
      000340
      177770
021 4724 042737      BIC #100,#DRS1
      000100
      167770
022 4732 004537      JSR R5,##IVA
      005714
023 4736 012777      MOV #-1,#IDNE11
      177777
      001440
024 4744 000205      RTS R5
025 4746 022626      TST73EI CMP (SP)+,(SP)+
026 4750 000137      JMP #TST73C
      004712
027 4754 022626      TST73FI CMP (SP)+,(SP)+
028 4756 000137      JMP #TST73D
      004716
029      ;*****
030      ;*****

711      ;TST74. TEST FOR TCRP TO CAUSE A PDP-11 INT AT CORRECT BR LEVEL.
712 4762 017700      TST74I  MOV #BR7TV,R0

```

```

001426
713 4760 012720      MOV #TST74E,(R0)+      /INIT TRAP
005112
714 4772 012710      MOV #340,(R0)
004340
715 4776 012737      MOV #-100,#@THPCNT
177700
006360
716 5004 004537      JSR R5,#@DTST
005530
717 5010 012737      MOV #340,#@PSW      /SET FOR BR7
000340
177776
718 5010 012737      MOV #100,#@DR03     /SET ENABLE
000100
167760
719 5024 005237 TST74A: INC #@THPCNT
006360
720 5030 001375      BNE TST74A          /WAIT
721 5032 004537      JSR R5,#@DTST
005530
722 5036 012740      MOV #TST74F,-(R0)   /INIT TRAP
005120
723 5042 012737      MOV #300,#@PSW     /SET FOR BR6
000300
177776
724 5050 005237 T8T74B: INC #@THPCNT
006360
725 5054 001375      BNE TST74B
726 5056 004537 TST74C: JSR R5,#@DTST
005512
727 5062 012737 TST74D: MOV #340,#@PSW
000340
177776
728 5070 042737      BIC #100,#@DR03
000100
167760
729 5076 004537      JSR R5,#@IYA
005714
730 5102 012777      MOV #-1,@I0NE11
177777
001274
731 5110 000205      RTS R5
732 5112 022626 TST74E: CMP (SP)+,(SP)+
733 5114 000137      JMP #@TST74C
005006
734 5120 022626 TST74F: CMP (SP)+,(SP)+
735 5122 000137      JMP #@TST74D
005002
736          ;*****
737          /TST75, CLEAR DR15 INT ENABLE AND TEST FOR NO PDP-15 INT FROM DR
738          /API0 FLG.
739 5120 110037 TST75:  MOV0 R0,#@API00      /SET API LB
167772
740 5132 012777      MOV #-1,@I0NE11

```

177777  
001244

```

741 5140 000205      RTS R5
742                ;*****
743                ;TST76, TEST FOR DR11 APIL0 FLG TO CAUSE PDP-15 INT.
744 5142 110037      TST76: MOV8 R0,#APIL0B      ;SET API L0
                167772
745 5140 012777      MOV #=1,#IDNE11
                177777
                001230
746 5154 000205      RTS R5
747                ;*****
748                ;TST77, TEST FOR DR11 APIL1 FLG TO CAUSE PDP-15 INT.
749 5150 110037      TST77: MOV8 R0,#APIL1B      ;SET API L1
                167773
750 5162 012777      MOV #=1,#IDNE11
                177777
                001214
751 5170 000205      RTS R5
752                ;*****
753                ;ST100, TEST FOR DR11 APIL2 FLG TO CAUSE PDP-15 INT.
754 5172 110037      ST100: MOV8 R0,#APIL2B      ;SET API L2
                167762
755 5170 012777      MOV #=1,#IDNE11
                177777
                001200
756 5204 000205      RTS R5
757                ;*****
758                ;ST101, TEST FOR DR11 APIL3 FLG TO CAUSE PDP-15 INT.
759 5200 110037      ST101: MOV8 R0,#APIL3B      ;SET API L3
                167763
760 5212 012777      MOV #=1,#IDNE11
                177777
                001164
761 5220 000205      RTS R5
762                ;*****
763                ;ST102, TEST FOR API BREAKS TO CORRECT PORTS FROM 0 TO 177 FROM
764                ;DR11 APIL0.
765 5222 005003      ST102: CLR R3
766 5224 110337      ST102A: MOV8 R3,#APIL0B      ;SET APIL0 WITH PORT ADDRESS
                167772
768 5230 012777      MOV #=1,#IDNE11
                177777
                001146
769 5236 020327      CMP R3,#177
                000177
770 5242 001415      BEQ ST102C      ;DONE?
771 5244 005203      INC R3
772 5246 022777      ST102B: LMP #=1,#ERRFLG
                177777
                001110
773 5254 001410      BEQ ST102C
774 5250 022777      CMP #=1,#IDNE15
                177777
                001110
775 5264 001370      BNE ST102B

776 5266 005077      CLR #IDNE15
                001110

```

```

777 5272 440137      JMP #ST102A
      485224
778 5276 000205 ST102C: RTS R5
779          ;*****
780          ;ST103. TEST FOR API BREAKS TO CORRECT PORTS FROM 0 TO 100 FROM
781          ;DR11 APIL1.
782 5300 005003 ST103: CLR R3
783 5302 110337 ST103A: MOVB R3,#APIL1B      ;SET APIL1 WITH PORT ADDRESS
      167773
784 5306 012777      MOV #=1,#IDNE11
      177777
      001070
785 5314 020327      CMP R3,#177
      000177
786 5320 001415      BEQ ST103C
787 5322 005203      INC R3
788 5324 022777 ST103B: CMP #=1,#ERRFLG
      177777
      001040
789 5332 001410      BEQ ST103C
790 5334 022777      CMP #=1,#IDNE15
      177777
      001040
791 5342 001370      BNE ST103B
792 5344 005077      CLR #IDNE15
      001032
793 5350 000137      JMP #*ST103A
      005302
794 5354 000205 ST103C: RTS R5
795          ;*****
796          ;ST104. TEST FOR API BREAKS TO CORRECT PORTS FROM 0 TO 177 FROM
797          ;DR11 APIL2.
798 5356 005003 ST104: CLR R3
799 5358 110337 ST104A: MOVB R3,#APIL2B      ;SET APIL2 WITH PORT ADDRESS
      167702
800 5364 012777      MOV #=1,#IDNE11
      177777
      001012
801 5372 020327      CMP R3,#177
      000177
802 5376 001415      BEQ ST104C
803 5400 005203      INC R3
804 5402 022777 ST104B: CMP #=1,#ERRFLG
      177777
      000762
805 5410 001410      BEQ ST104C
806 5412 022777      CMP #=1,#IDNE15
      177777
      000762
807 5420 001370      BNE ST104B
808 5422 005077      CLR #IDNE15
      000754
809 5426 000137      JMP #*ST104A
      005360
810 5432 000205 ST104C: RTS R5

```

```

811          ;*****
812          ;*****

```



```

013          ;IST105. TEST FOR API BREAKS TO CORRECT PORTS FROM 0 TO 177 FROM
014          ;DN11 APIL3.
015 5434 005003 ST105: CLR R5
016 5436 110337 ST105A: MOV R3,#APIL3B          ;SET APIL3 WITH PORT ADDRESS
          167753
017 5442 012777      MOV #=1,#IDNE11
          177777
          000734
018 5450 020327      CMP R3,#177
          000177
019 5454 001415      BEQ ST105C
020 5456 005203      INC R3
021 5460 022777 ST105B: CMP #=1,#ERRFLG
          177777
          000704
022 5466 001410      BEQ ST105C
023 5470 022777      CMP #=1,#IDNE15
          177777
          000704
024 5476 001370      BNE ST105B
025 5500 005077      CLR #IDNE15
          00067b
026 5504 000137      JMP #ST105A
          005436
027 5510 000205 ST105C: RTS R5
028          ;*****
029          ;*****
030          ;
031 5512 012777 ETST: MOV #=1,#ERRIND
          177777
          000670
032 5520 012777      MOV #=1,#ERRFLG
          177777
          000644
033 5526 000205      RTS R5
034          ;
035 5530 012777 DTST: MOV #=1,#IDNE11
          177777
          000646
036 5536 022777 DTST.1: CMP #=1,#IDNE15
          177777
          000636
037 5544 001374      BNE DTST.1
038 5546 005077      CLR #IDNE15
          000630
039 5552 000205      RTS R5
040          ;SUBROUTINE WRITES POP=15 ADDRESSES CONTAINED IN R2 INTO 2K OF C
041          ;MEM STARTING AT ADDRESS INDICATED IN R1. A RANDOM FASHION DELAY
042          ;EXECUTED BEFORE EACH WORD IS WRITTEN.
043 5554 012737 WRT2K: MOV #4000,#WCNT
          004000
          000420
044 5562 004537 WRT2.1: JSR R5,#DLY
          006276
045 5566 010221      MOV R2,(R1)+          ;WRITE A LOC

046 5570 005202      INC R2          ;BUMP 15 ADDRESS
047 5572 005337      DEC #WCNT

```

```

006420
848 5576 001371 BNE WRT2.1 ;DONE?
849 5000 000205 RTS R5 ;YES
850
851 ;
852 ;SUBROUTINE READS & CHECKS DATA (PDP-15 ADDRESSES) WRITTEN BY 15
853 ;IF AN ERROR IS ENCOUNTERED, PDP-15 LOC ERRFLG IS SET TO -1, THE
854 ;GOOD WORD AND PDP-15 ADDRESS (SAME) IS DEPOSITED IN PDP-15 LOC
855 ;AND THE BAD WORD IS DEPOSITED IN PDP-15 LOC BAD, TESTING BEGINS
856 ;ADDRESS INDICATED IN R1, DELAY BEFORE EACH WORD IS CHECKED.
856 5002 012737 READ2K: MOV #4000,0#RCNT
004000
006422
857 5610 004537 READ.1: JSR R5,0#DLY
006276
858 5614 010277 MOV R2,0#ADR
000610
859 5020 010277 MOV R2,0#GOOD ;STORE DATA EXPECTED
000550
860 5624 012177 MOV (R1)+,0#BAD ;STORE DATA READ
000546
861 5630 027777 CMP #GOOD,0#BAD ;DATA CORRECT?
000546
000548
862 5636 001005 BNE READ.2 ;DATA CORRECT?
863 5640 005202 INC R2 ;YES
864 5642 005337 DEC 0#RCNT
006422
865 5040 001300 BNE READ.1 ;DONE?
866 5050 000205 RTS R5 ;YES
867 5052 012777 READ.2: MOV #-1,0#ERRIND
177777
000530
868 5060 022777 CMP #-1,0#ERRFLG
177777
000504
869 5066 001403 BEQ READ.3 ;ERRFLG ALREADY SET?
870 5070 012777 MOV #-1,0#ERRFLG
177777
000474
871 5070 000205 HEAD.3: RTS R5
872
873 ;
874 ;SUBROUTINE TO CONVERT PDP-15 ADDRESS INTO PDP-11 ADDRESS AND LE
875 ;11 ADDRESS IN R1. 15 ADDRESS MUST BE IN R1 UPON ENTERING ROUTIN
875 5700 000301 CNVRT: ASL R1 ;15 ADDR X 2
876 5702 000240 NOP
877 5704 000240 NOP
878 5706 003701 ADD 0#DS13,R1 ;15 ADDR X 2 + 20000 + DS BIT 13
000364
879 5712 000205 RTS R5
880 ;SUBROUTINE TO INIT VECTOR ADDRESSES FROM 0 TO 774, VECTOR ADDRE
881 ;WILL CONTAIN ,+2, AND VECTOR ADDRESSES+2 WILL CONTAIN HALTS.
882 5714 012737 IVA: MOV #-200,0#THPCNT
177600
000300
883 5722 012700 MOV #2,R0
000002
884 5720 005001 CLR R1

```

```

005 5730 010021 IVA,A:  MOV R0,(R1)+
006 5732 012721      MOV #HALT,(R1)+
      000000
007 5736 062700      ADD #4,R0
      000004
008 5742 005237      INC #HTMPCNT
      006360
009 5746 001370      BNE IVA,A
010 5750 000205      RTS R5
011      ;*****
012      ;*****
013      ;POWER FAIL TEST. BOTH POP=15 & 11 ARE TESTED TO RECOVER FROM A
014      ;FAILURE.
015 5752 004537 PWRFL1 JSR R5,#IVA
      005714
016 5756 012737      MOV #PWRFLG,#4
      006244
      000004
017 5764 012737      MOV #340,#6
      000340
      000000
018 5772 005037      CLR #TMP
      006350
019 5776 012737      MOV #PWRFB,#24
      000032
      000024
020 6004 012737      MOV #340,#26
      000340
      000020
021 6012 012777      MOV #1,#IDNE11
      177777
      000364
022 6020 027777 PWRFLA: CMP #IDNE11,#IDNE15      JREF COMMON MEM WHILE WAITING
      000360
      000354
023 6026 000137      JMP #PWRFA
      000020
024 6032 012737 PWRFLB: MOV #PWRFC,#24
      006102
      000024
025 6040 010037      MOV R0,#PTR0
      000340
026 6044 010137      MOV R1,#PTR1
      000342
027 6050 010237      MOV R2,#PTR2
      000344
028 6054 010337      MOV R3,#PTR3
      000340
029 6060 010437      MOV R4,#PTR4
      000350
030 6064 010537      MOV R5,#PTR5
      000352
031 6070 010637      MOV SP,#NTSP
      000354
032 6074 000000      HALT

033 6076 000137      JMP #PWRFB
      000032

```

```

914 0102 005037 PWR,C1 CLR #NTPCNT
      006300
915 0100 012737      MOV #3,#NTPCN1
      000003
      006302
916 0114 005237 PWR,D1 INC #NTPCNT
      006300
917 0120 001375      BNE PWR,D
918 0122 005337      DEC #NTPCN1
      006302
919 0120 001372      BNE PWR,D
920 0130 022777 PWR,E1 CMP #1,#IDNE15
      177777
      000244
921 0130 001404      BEQ PWR,F
922 0140 005237      INC #NTPCNT
      006300
923 0144 001371      BNE PWR,E
924 0140 000000      HALT
925
926 0150 005077 PWR,F1 CLR #IDNE15
      000220
927 0154 005077      CLR #GOOD
      000214
928 0160 032737      BIT #1,#NTP
      000001
      006350
929 0160 001403      BEQ PWR,I
930 0170 012777      MOV #1,#GOOD
      177777
      000170
931 0170 012777 PWR,I1 MOV #1,#IDNE11
      177777
      000200
932 0204 013700      MOV #NTR0,R0
      006340
933 0210 013701      MOV #NTR1,R1
      000342
934 0214 013702      MOV #NTR2,R2
      006344
935 0220 013703      MOV #NTR3,R3
      006340
936 0224 013704      MOV #NTR4,R4
      006350
937 0230 013705      MOV #NTR5,R5
      006302
938 0234 013706      MOV #NTR6,R6
      006354
939 0240 022626      CMP (SP)+,(SP)+
940 0242 000205      RTS R5
941 0244 012737 PWR,G1 MOV #6,#N4
      000000
      000004
942 0252 005037      CLR #N6
      000000

943 0250 005237      INC #NTP
      006350

```

JPOP-15 FAILED TO SET -1 IN IDNE  
FOR PDP-11 REFERENCED WRONG LOCA

```

944 0262 000777      BR *                ;WAIT FOR POWER FAIL INT AFTER B
945                                     ;TIME OUT.....
946                                     ;
947                                     ;CONVERT 15 ADDRESS TO 11 & WRITE 2K.
948                                     ;
949 0264 004537      CUNWRT: JSR R5,#CNVRT
950 0270 005700      JSR R5,#WRT2K
951 0274 005554      RTS R5
952                                     ;
953 0276 013704      DLY:   MOV #NDLYPNT,R4
954 0302 006424      MOV (R4)+,#NDLYCNT
955 0306 006426      BIS #177700,#NDLYCNT
956 0314 005237      DLY,A:  INC #NDLYCNT
957 0320 001375      BNE DLY,A
958 0322 020437      CMP R4,#SIZE
959 0326 000650      BNE DLY,B
960 0330 005004      CLR R4
961 0332 010437      DLY,B:  MOV R4,#NDLYPNT
962 0336 000205      RTS R5
963                                     ;CONSTANTS & VARIABLES
964 0340 000000      TR0:   0
965 0342 000000      TR1:   0
966 0344 000000      TR2:   0
967 0346 000000      TR3:   0
968 0350 000000      TR4:   0
969 0352 000000      TR5:   0
970 0354 000000      TSP:   0
971 0356 000000      TMP:   0
972 0360 000000      TPCNT:  0
973 0362 000000      TPCNT1: 0
974 0364 000000      DS13:   0
975 0366 000000      MWSA15: 0
976 0370 000000      MWSA11: 0
977 0372 000000      ERKFLG: 0
978 0374 000000      GUUD:   0
979 0376 000000      BAU:    0
980 0400 000000      TEST:   0
981 0402 000000      IDNE15: 0
982 0404 000000      IDNE11: 0
983 0406 000000      TSTPNT: 0
984 0410 000000      ERKIND: 0
985 0412 000000      BRDSTV: 0
986 0414 000000      BR7TV:  0
987 0416 000000      INIT:   0
988 0420 000000      WCNT:   0
989 0422 000000      KCNT:   0

```

```

990 0424 000000      ULTPNT: 0
991 0426 000000      DLYCNT: 0

```

```

992 6430 000000 ADKI 0
993 6432 000000 TEMP: 0
994
995 6434 006434 TSTBL1
996 6436 001434 TST1
997 6440 001476 TST2
998 6442 001548 TST3
999 6444 001562 TST4
1000 440 001604 TST5
1001 450 001650 TST6
1002 452 001714 TST7
1003 454 001756 TST10
1004 450 002020 TST11
1005 460 002060 TST12
1006 462 002120 TST13
1007 464 002300 TST14
1008 460 002500 TST15
1009 470 002522 TST16
1010 472 002552 TST17
1011 474 002602 TST20
1012 476 002604 TST21
1013 500 002606 TST22
1014 502 002624 TST23
1015 504 002642 TST24
1016 506 002740 TST25
1017 510 002770 TST26
1018 512 003012 TST27
1019 514 003030 TST30
1020 516 003062 TST31
1021 520 003104 TST32
1022 522 003120 TST33
1023 524 003134 TST34
1024 520 003150 TST35
1025 530 003164 TST36
1026 532 003210 TST37
1027 534 003234 TST40
1028 530 003260 TST41
1029 540 003304 TST42
1030 542 003334 TST43
1031 544 003364 TST44
1032 540 003414 TST45
1033 550 003444 TST46
1034 552 003440 TST47
1035 554 003450 TST50
1036 550 003452 TST51
1037 560 003460 TST52
1038 562 003532 TST53
1039 564 003546 TST54
1040 560 003612 TST55
1041 570 003620 TST56
1042 572 003672 TST57
1043 574 003706 TST60
1044 570 003752 TST61
1045 000 004002 TST62
1046 002 004032 TST63

```

```

1047 004 004002 TST64
1048 006 004112 TST65

```

```

1049 010 004144      TST06
1050 012 004204      TST07
1051 014 004302      TST70
1052 010 004412      TST71
1053 020 004514      TST72
1054 022 004622      TST73
1055 024 004702      TST74
1056 020 005120      TST75
1057 030 005142      TST76
1058 032 005160      TST77
1059 034 005172      ST100
1060 030 005200      ST101
1061 040 005222      ST102
1062 042 005300      ST103
1063 044 005350      ST104
1064 040 005434      ST105
1065
1066 050 006650 SIZE:
1067
1068 000001 .END
    
```

AUX	006430	APIL0B	167772	APIL1B	167773
APIL2B	167702	APIL3B	167763	BAD	006376
BKBT	006412	BK7TV	006414	CNVRT	005700
CUNNRT	006204	DLT	006276	DLYCNT	006426
DLYPT	006424	DLT,A	006314	DLT,B	006332
DRS1	167770	DRS2	167774	DRS3	167760
DRS4	167764	DS	177570	DS13	006364
DTST	005530	DTST.1	005536	ERRFLG	006372
ERKIND	006410	ETST	005512	GC	001140
GUUU	006374	IDNE11	006404	IDNE15	006402
INIT	006410	ISTART	001100	ISTA.1	001272
ISTA.2	001300	ISTA.3	001322	IS.A	001190
IVA	005714	IVA.A	005730	PC	X000007
PSW	177776	PWRFL	005752	PWRF.A	006020
PWRF.B	006032	PWRF.C	006102	PWRF.D	006114
PWRF.E	006130	PWRF.F	006150	PWRF.G	006244
PWK.1	006170	KCNT	006422	READ.1	005610
READ.2	005652	READ.3	005676	READ2K	005602
RWSA11	006370	RWSA15	006366	R0	X000000
R1	X000001	R2	X000002	R3	X000003
R4	X000004	R5	X000005	SIZE	006650
SP	X000000	START	001340	STAR.1	001346
STAR.2	001422	ST100	005172	ST101	005206
ST102	005222	ST102A	005224	ST102B	005246
ST102C	005276	ST103	005300	ST103A	005302
ST103B	005324	ST103C	005354	ST104	005356
ST104A	005360	ST104B	005402	ST104C	005432
ST105	005434	ST105A	005436	ST105B	005460
ST105C	005510	TEMP	006432	TEST	006400
TMP	006356	TMPCNT	006360	TMPCN1	006362
TR0	006340	TR1	006342	TR2	006344
TR3	006346	TR4	006350	TR5	006352
TSP	006354	TSTPNT	006406	TSTTBL	006434
TST1	001434	TST1.A	001446	TST10	001756
TST10A	001770	TST11	002020	TST12	002060
TST113	002120	TST13A	002136	TST13B	002202
TST13C	002232	TST130	002276	TST14	002306
TST14A	002324	TST14B	002370	TST14C	002420
TST140	002470	TST15	002500	TST15A	002512
TST16	002522	TST16A	002542	TST17	002552
TST17A	002572	TST2	001476	TST2.A	001510
TST20	002602	TST21	002604	TST22	002606
TST23	002624	TST24	002642	TST24A	002646
TST24B	002706	TST24C	002710	TST24D	002736
TST25	002740	TST25A	002760	TST26	002770
TST26A	003002	TST27	003012	TST27A	003026
TST3	001540	TST30	003036	TST30A	003052
TST31	003062	TST31A	003074	TST32	003104
TST33	003120	TST34	003134	TST35	003150
TST36	003104	TST37	003210	TST4	001562
TST40	003234	TST41	003260	TST42	003304
TST43	003334	TST44	003364	TST45	003414
TST46	003444	TST47	003446	TST5	001604
TST50	003450	TST51	003452	TST52	003466
TST52A	003522	TST53	003532	TST54	003546

TST54A 003002  
TST56A 003602

TST55 003012  
TST57 003672

TST50 003620  
TST6 001650

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SYMBOL TABLE

TST00	003700	TST60A	003742	TST61	003752
TST01A	003772	TST62	004002	TST62A	004022
TST03	004032	TST63A	004052	TST64	004062
TST04A	004102	TST65	004112	TST65A	004134
TST06	004144	TST66A	004174	TST67	004204
TST07A	004240	TST67B	004260	TST67C	004266
TST7	0041714	TST7_A	001726	TST7D	004302
TST70A	004342	TST70B	004362	TST70C	004370
TST71	004412	TST71A	004444	TST71B	004464
TST71C	004500	TST72	004514	TST72A	004592
TST720	004572	TST72C	004614	TST73	004622
TST73A	004060	TST730	004704	TST73C	004712
TST73D	004710	TST73E	004746	TST73F	004754
TST74	004762	TST74A	005024	TST74B	005050
TST74C	005056	TST74D	005062	TST74E	005112
TST74F	005120	TST75	005120	TST76	005142
TST77	005156	WCNT	006420	WRT2K	005554
4KT2.1	005502				