DataGeneral

TECHNICAL STATEMENT

TEXT LISTING

068-001046-00

PROGRAM

UNIVERSAL COMMUNICATIONS SYSTEM
REDUNDENT MODULE

TEXT TAPE

097-001046-00

ABSTRACT

THE DUAL PORT CONTROLLER DIAGNOSTIC IS USED TO CHECK OUT, ON A GATE BY GATE BASIS, THE INTEGRITY OF THE LOGIC ON THE CONTROLLER.

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 0001 .MAIN MACRO REV 06.20              01:32:59 02/27/78
01
02
03
04
05
06
07
08              ;*****************************************************************
09              ;
10              ; NAME: DUAD.TX                          PART NUMBER: 097-001046
11              ;
12              ;
13              ; DESCRIPTION:  UNIVERSAL COMMUNICATIONS SYSTEM REDUNDANT MODULE
14              ;               TEXT FILE (DUAL PORT CONTROLLER)
15              ;
16              ;
17              ; REVISION HISTORY:
18              ;
19              ;       REV.            DATE
20              ;
21              ;       00              03/03/78
22              ;
23              ;
24              ; COPYRIGHT (C) DATA GENERAL CORPORATION, 1978
25              ; ALL RIGHTS RESERVED.
26              ;*****************************************************************
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 0002 .MAIN
01
02
03
04
05              ;1.             PROGRAM NAME:           DUAD.SR
06              ;
07              ;2.             REVISION HISTORY:
08              ;
09              ;               REV.            DATE            COMMENTS
10              ;               00              03/03/78        INITIAL RELEASE
11              ;
12              ;3.             MACHINE REQUIREMENTS
13              ;
14              ;3.1                NOVA (EXCEPT MICRO)/ECLIPSE FAMILY PROCESSOR
15              ;3.2                16K READ/WRITE MEMORY
16              ;3.3                CONSOLE  TELETYPE
17              ;3.4                DCU 50
18              ;3.5                COMMUNICATIONS CHASSIS (4251,4252,4253)
19              ;3.6                DUAL PORT CONTROLLER BOARD (4232)
20              ;
21              ;4.             TEST REQUIREMENTS:
22              ;
23              ;4.1                THIS PROGRAM CAN BE RUN WITH A MINIMUM
24              ;                   CONFIGURATION AS INDICATED IN 3 ABOVE
25              ;                   BUT TO THOROUGHLY TEST THE BOARD THE
26              ;                   PROGRAM SHOULD BE RUN FROM BOTH THE
27              ;                   LEFT AND THE RIGHT PORT OF THE DUAL
28              ;                   PORT BOARD.
29              ;
30              ;5.             SUMMARY:
31              ;
32              ;5.1                THE DUAL PORT CONTROLLER DIAGNOSTIC IS
33              ;                   USED TO CHECK OUT, ON A GATE BY GATE
34              ;                   BASIS, THE INTEGRITY OF THE LOGIC
35              ;                   ON THE CONTROLLER.
36              ;
37              ;6.             RESTRICTIONS:
38              ;
39              ;6.1                THIS PROGRAM DOES NOT CHECK THE PRIORITY
40              ;                   OUT OF THE DUAL PORT BOARD.
```

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!0003 .MAIN
01
02              ;7.             DESCRIPTION:
03              ;
04              ;               THE DUAL PORT DIAGNOSTIC PROGRAM HAS THREE
05              ;               MAJOR PARTS:    1) INITIALIZATION
06              ;                               2) HOST DRIVER
07              ;                               3) DCU PROGRAM
08              ;7.1.1             PART ONE: INITIALIZATION
09              ;                  THIS PART QUERIES THE OPERATOR AS TO THE
10              ;                  FOLLOWING.
11              ;7.1.2             THE DEVICE CODE OF THE DCU (XX)
12              ;7.1.3             THE DEVICE CODE OF THE DPC (34 OR 44)
13              ;7.1.4             THE PRESENCE OF THE CRC OPTION (YES/NO)
14              ;7.1.5             THE PORT THAT THE DIAGNOSTIC IS BEING
15              ;                  EXECUTED FROM (RIGHT/LEFT)
16              ;7.1.6             WHETHER OR NOT THE OPERATOR WISHES
17              ;                  TO SELECT THE TEST ORDER (YES/NO)
18              ;7.1.6.1             IF THE ANSWER IS NO THE TESTS ARE RUN
19              ;                    IN CONSECUTIVE ORDER.
20              ;7.1.6.2             IF THE ANSWER IS YES IT ASKS FOR
21              ;                    TEST #'S & ITERATION COUNTS (IC=) UNTIL
22              ;                    GIVEN THE COMMAND TO END INPUT (E).
23              ;7.1.7             WHETHER OR NOT THE OPERATOR WISHES TO
24              ;                  CHANGE THE ITERATION COUNT (YES OR NO)
25              ;                  (NOTE: THE ITERATION COUNT IS THE NUMBER
26              ;                  OF TIMES THAT EACH SUB-TEST RUNS).
27              ;7.1.7.1             IF THE ANSWER IS NO THE ITERATION COUNT
28              ;                    REMAINS AT 100.
29              ;7.1.7.2             IF THE ANSWER IS YES THEN THE OPERATOR
30              ;                    MUST ANSWER (IC=XX) THE 2 DIGIT VALUE
31              ;                    FOR THE IC. THIS MEANS THAT EACH SUB-
32              ;                    TEST WILL BE RUN XX NUMBER OF TIMES
33              ;                    AFTER THE INITIAL PASS.
34
35              ;7.1.8             WHETHER OR NOT THE WDT FRONT PANNEL IS
36              ;                  TO BE TESTED.
```

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!0004 .MAIN
01              ;7.2            PART TWO: HOST DRIVER
02              ;
03              ;7.2.1             THE HOST DRIVER CODE FIRST LOADS THE DCU
04              ;                  PROGRAM INTO DCU AND DCU/HOST SHARED
05              ;                  MEMORY. THEN IT STARTS THE DCU AT THE
06              ;                  FIRST TEST IN EITHER TESTAB OR ALTAB
07              ;                  DEPENDING ON WHETHER OR NOT THE USER
08              ;                  SELECTED TEST ORDER IS SELECTED. AFTER
09              ;                  STARTING THE DCU THE HOST WAITS FOR THE
10              ;                  DCU TO HALT. WHEN THE DCU HALTS, THE
11              ;                  HOST CHECKS THE STATE OF THE DCUTB FLAG.
12              ;                  ALL ONES INDICATES THE SUB-TEST PASSED
13              ;                  ALL ZEROS INDICATES A SUBTEST FAILURE.
14              ;                  THE HOST THEN GOES TO DLIB ROUTINE ERR?OR
15              ;                  OR LOO?P DEPENDING ON THE STATE OF THE
16              ;                  SWITCHES IN SWREG. FOR MORE INFO ON
17              ;                  SWREG ROUTINES SEE SECTION (8.1). IF
18              ;                  THE USER HAS SELECTED THE SECTION OF
19              ;                  THE DIAG WHICH REQUIRES OPERATOR INTER-
20              ;                  ACTION ,ANSWER YES TO THE FRONT PANNEL
21              ;                  QUESTION (7.1.8). THE HOST PROGRAM
22              ;                  INFORMS THE OPERATOR WHAT STEPS
23              ;                  TO TAKE TO MAKE THE PROGRAM CONTINUE.
24              ;                  AT THE END OF ALL TESTS A PASS COUNT
25              ;                  IS PRINTED DEPENDING ON THE STATE
26              ;                  OF THE SWREG SWITCHES.
27              ;
28
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10005 .MAIN
01
02              ;7.3            PART THREE: DCU PROGRAM
03              ;               THE DCU PROGRAM IS DIVIDED INTO 5 PHASES
04              ;               PHASE ONE:CHECKS I/O TIMING, PHASE TWO:
05              ;               CHECKS CONTROL SIGNALS TO LINE MODULES,
06              ;               PHASE THREE: CHECKS CRC OPTIONAL CRC GEN-
07              ;               ERATOR, PASE FOUR: CHECKS COMM LINK AND
08              ;               WATCH DOG TIMER ON LINE, PHASE FIVE: CHECKS
09              ;               WDT FRONT PANEL (REQUIRES OPERATOR INTERACTION).
10              ;7.3.1             PHASE ONE: I/O TIMING
11              ;                  THIS SECTION OF THE TEST CHECKS TIMING FOR
12              ;                  I/O INSTRUCTIONS IN THREE SECTIONS. 1) I/O
13              ;                  FROM PORT WHERE DIAGNOSTIC IS BEING EXECUTED
14              ;                  2) I/O FROM THE OPPOSITE PORT, 3) I/O FROM
15              ;                  BOTH PORTS SIMULTANIOUSLY.
16              ;7.3.1.1             THE TIMING IS CHECKED BY PUTTING THE D.P.C
17              ;                    IN OFF LINE MODE.(IOST TO DEVICE CODE DIAG)
18              ;                    THEN THE CLOCK IS STEPPED ONE STEP AT A
19              ;                    TIME(IOPS AND OFFLINE) AND THE STATE OF
20              ;                    THE I/O IS READ AFTER EACH STEP SIGNALS
21              ;                    (DIA X, DIAG).THE DATA READ IS THEN COM-
22              ;                    PARED AGAINST A MASK OF KNOWN GOOD DATA
23              ;                    FOR THAT STEP.
24              ;7.3.2            PHASE TWO - THIS SECTION CHECKS CONTROL
25              ;                 SIGNALS AFTER PHASE ONE IS PASSED USER NOW
26              ;                 IS ABLE TO OPEN THE BUSS TO THE COMMON SIDE.
27              ;                 THE I/O CONTROL SIGNALS ARE THEN PASSED (ONE
28              ;                 PER TEST TO THE DIAGNOSTIC MULTIPLEXORS.
29              ;7.3.2.1          THE STATE OF THE DIAG MULTIPLEXOR IS READ
30              ;                 AND CHECKED FOR EITHER THE HIGH BIT SET
31              ;                 OR THE LOW BIT SET OR NOT SET.
32              ;7.3.3            PHASE THREE - CRC
33              ;                 THIS PORTION OF THE DIAGNOSTIC HAS TWO PARTS
34              ;                 ONE FOR EACH CRC POLYNOMIAL.
35              ;7.3.3.1            THE TEST GETS A HARDWARE CALCULATED CRC
36              ;                   FOR ALL POSSIBLE DATA PATTERNS AND SEVERAL
37              ;                   TEMPORARY CRC PATTERNS AND COMPARES THAT
38              ;                    CRC AGAINST A CRC CALCULATED BY SOFTWARE.
39              ;                   IF THERE IS A MISMATCH  THE ERROR FLAG
40              ;                    IS SET AND WHEN THE TEST LOOPS ONLY THE
41              ;                   FAILING DATA AND TEMPORARY CRC WILL BE SENT
42              ;                   OUT. IF THE CRC OPTION QUESTION FROM SEC-
43              ;                   TION 7.1.4 IS ANSWERED NO, THIS SECTION OF
44              ;                   THE TEST WILL BE SKIPPED.
45              ;7.3.4            PHASE FOUR- ON LINE WATCH DOG TIMER AND COMM
46              ;                 LINK THIS SECTION CHECKS THE  ABILITY OF THE
47              ;                 DPC TO SET DONE FOR THE COMM LINK AND WATCH
48              ;                 DOG TIMER AND THE ABILITY OF THE WATCH DOG
49              ;                 TIMER # RANDOM GENERATOR TO GENERATE ALL
50              ;                 THE RANDOM #'S AND THE ABILITY OF THE WDT
51              ;                 TO SET ERROR STATUS CORRECTLY.
52              ;7.3.5            PHASE FIVE - FRONT PANNEL WDT
53              ;                 THIS SECTION CHECKS THE ABILITY OF THE WDT
54              ;                 FRONT PANNEL TO SOUND ALARMS AND LIGHT
55              ;                 LIGHTS AND THAT ALL SWITCHES WORK.
56              ;                 **OPERATOR INTERACTION IS REQUIRED**
57              ;                 THE PROGRAM INFORMS THE OPERATOR WHAT STEPS
58              ;                 ARE TO BE TAKEN TO PROCEED.
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10006 .MAIN
01              ;
02              ;               OPERATION MODES/SWITCHES
03
04
 FU00000 000000                 S?WPD   8.1
06              ;
07              ;8.1.1.2.2      SWITCHES DEFINED FOR DUAD (ADDENDUM TO
08              ;               8.1.1.1.1.1)
09              ;               BIT     OCTAL   BINARY  INTERPRETATION
10              ;               C               0       DO NOT CONTINUE
11              ;                       000010  1       CONTINUE WITH MANUAL
12              ;                                       TEST
13              ;               F               0       N.A.
14              ;                       000001  1       PRINT PASS COUNTER AT
15              ;                                       COMPLETION OF NEXT SUB-
16              ;                                       TEST.
17
 FU00001 000000                 O?DTD   8.2
19
```

```
10007 .MAIN
01
02                ;
03                ;9.             OPERATING PROCEDURE
04                ;
05                ;9.1               LOAD THE TEST PROGRAM VIA THE BINARY LOADER
06                ;                  OR DIAGNOSTIC OPERATING SYSTEM.
07                ;9.2               SET  CONSOLE SWITCHES TO 000200
08                ;9.3               PRESS START
09                ;9.4               ANSWER ALL QUESTIONS AS DESCRIBED IN
10                ;                  SECTION 7.1. ALL QUESTIONS MUST HAVE
11                ;                  A CR TERMINATOR.
12                ;9.5               THE PROGRAM WILL RUN UNTIL AN ERROR OCCURS
13                ;                  IN WHICH CASE IT WILL LOOP ACCORDING TO
14                ;                  THE SWITCHES SET IN SWREG. IF NO ERROR OCCURS
15                ;                  THE PROGRAM WILL PRINT THE PASS COUNTER ACCORD-
16                ;                  ING TO THE SWITCHES SET IN SWREG.
17                ;
18                ;10.            PRINT OUTS FROM THE PROGRAM
19                ;
20                ;10.1              WHEN AN ERROR IS DETECTED THE PROGRAM PRINTS
21                ;                  1) THE HOST ACC'S PC AND STATE OF CARRY
22                ;                  2) THE DCU ACC'S  AND STATE OF CARRY
23                ;                  3) THE ADDRESS OF THE TEST THAT FAILED
24                ;                   4) THE TEST # OF THE TEST THAT FAILED
25                ;                  5) THE FUNCTION OF ERROR (I.E. LOOPING ON
26                ;                  HALTED ON ERROR)
27                ;
28                ;10.2           WELC:  THIS IS AN INTRODUCTORY MESSAGE
29                ;                  PRINTED AT THE START OF THE PROGRAM TO
30                ;                  INFORM THE OPERATOR WHAT DIAGNOSTIC HE
31                ;                  IS RUNNING AND WHAT STATE THE SELECT-
32                ;                  ABLE SWITCHES SHOULD BE IN.
33                ;10.3           DCUDC:  "TYPE TWO DIGIT DEVICE CODE OF DEV"
34                ;                  OPERATOR MUST ANSWER WITH THE TWO DIGIT
35                ;                  OCTAL DEVICE CODE OF THE DCU.
36                ;
37                ;10.4           .DPCM:  "DUAL PORT DEVICE CODE IS 34 OR 44?
38                ;                        (1=34 0=44)"
39                ;                  IF PRI/SEC SWITCH ON DUAL PORT CONTROLLER IS
40                ;                  IN PRI POSITION OPERATOR SHOULD ANSWER ONE
41                ;                  ELSE ANSWER ZERO.
42                ;
43                ;10.5           RTMSG:  "IS THIS THE RIGHT OR LEFT (RIGHT=1
44                ;                       LEFT=0)?"
45                ;                  IF DCU FROM WHICH THE DIAGNOSTIC IS RUN IS
46                ;                  CONNECTED TO THE LEFT PORT OF THE COMM CHASIS
47                ;                  OPERATOR MUST ANSWER 0 IF CONNECTED TO RIGHT
48                ;                  PORT ANSWER 1.
49                ;
50                ;10.6           SELT:  "DO YOU WISH TO SELECT THE TEST # ORDER?
51                ;                       (1=YES 0=NO)"
52                ;                  IF OPERATOR WISHES TO SELECT THE TESTS TO
53                ;                  BE RUN ANSWER 1 AND MESSAGE 10.7 & 10.8
54                ;                  WILL FOLLOW IF ANSWER IS NO TEST WILL RUN
55                ;                  IN ORDER FROM THE TESTABLE (TESTAB).
56                ;
57
58
59
60
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0008 .MAIN
01                ;10.7           ITYT:  "TYPE TEST # THEN IC WHEN ORDER IS
02                ;                       COMPLETE TYPE E FOR TEST #"
03                ;                  IF QUESTION 10.6 WAS ANSWERED YES THEN
04                ;                  THIS MESSAGE WILL APPEAR, FOLLOWED BY
05                ;                  MESSAGE 10.8.
06                ;
07                ;10.8           TYTNO:  "TYPE TEST NUMBER..."
08                ;                  ANSWER IS THE DECIMAL NUMBER OF TESTS
09                ;                  TO BE RUN OR AN "E" IS ACCEPTED WHEN
10                ;                  ENDING.
11                ;
12                ;10.9           IC: "ITERATION COUNT="
13                ;                  ANSWER IS THE DECIMAL # FOR THE # OF
14                ;                  TIMES THE SUBTEST SELECTED IN 10.8 IS TO
15                ;                  BE RUN.
16                ;
17                ;10.10          ATF:  "ALTERNATE TABLE FULL... PROGRAM WILL
18                ;                      START TEST ONE OF TABLE"
19                ;                  THIS MESSAGE WILL APPEAR IF MORE THEN 20
20                ;                  ALTERNATE TESTS ARE SELECTED.
21                ;
22                ;10.11          SICK: "ILLEGAL CHARACTER...TRY AGAIN XXXX"
23                ;                  IF ANSWERING 10.8 OR 10.9 AN ILLEGAL
24                ;                  CHARACTER IS STRUCK (IE. NOT 1-0 OR E)
25                ;                  THIS MESSAGE WILL APPEAR.
26                ;
27                ;10.12          WIT:  "DO YOU WISH TO CHANGE THE IC (1=YES
28                ;                      0=NO) IF NO IC WILL BE 100.
29                ;                  IF ANSWER IS NO ALL SUBTESTS FROM TESTAB
30                ;                  WILL BE RUN 100 TIMES EACH. IS YES THAN
31                ;                  MESSAGE 10.9 FOLLOWS AND OPERATOR INPUTS
32                ;                  THE DECIMAL # FOR THE NO. OF TIMES EACH
33                ;                  SUBTEST IS TO BE RUN.
34                ;
35                ;10.13          .MANM:  "DO YOU WISH TO CHECK THE WDT FRONT
36                ;                       PANNEL" (1=YES 0=NO)
37                ;                  IF THE OPERATOR WISHES TO RUN PHASE FIVE
38                ;                  OF THE TEST HE MUST ANSWER 1 IF NOT ONLY
39                ;                  PHASES 1-4 WILL BE LOOPED.
40                ;
41                ;10.14          .DMST  "DCU FAILED TO START"
42                ;                  THIS ERROR MESSAGE OCCURS WHEN UPON EITHER
43                ;                  LOADING THE DCU PROGRAM OR STARTING A SUB-
44                ;                  TEST THE DCU FAILED TO GO BUSY.
45                ;
46                ;10.15          .DMSP  "DCU FAILED TO STOP"
47                ;                  THIS ERROR MESSAGE OCCURS WHEN UPON LOADING
48                ;                  THE DCU PROGRAM, OR STARTING A SUBTEST THE
49                ;                  DCU FAILS TO GO NOT BUSY.
50                ;
51                ;10.16          NIOPC AND NOBC "NO OF PASSES COMPLETED IS"
52                ;                  THIS TELLS THE OPERATOR HOW MANY PASSES
53                ;                  HAVE OCCURED.
54
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10009 .MAIN
01
02
03              ;
04              ;10.17          DNS:  "DONE NOT SET"
05              ;                  THIS ERROR MESSAGE MEANS THAT DONE DID
06              ;                  NOT SET FOR SOME ON LINE TEST.
07              ;
08              ;10.18          CLDNS:  "COMM LINK DONE NOT SET"
09              ;                  THIS ERROR MSG MEANS THAT DONE WAS SET
10              ;                  BUT IT WAS NOT A COMM LINK DONE AND
11              ;                  SHOULD HAVE BEEN.
12              ;
13              ;10.19          DSS:  "DONE STILL SET"
14              ;                  THIS ERROR MESSAGE MEANS THAT DONE IS
15              ;                  STILL SET AFTER IT SHOULD HAVE BEEN
16              ;                  CLEARED.
17              ;
18              ;10.20          WDTNS:  "WATCH DOG TIMER DID NOT SET DONE"
19              ;                  THIS ERROR MESSAGE MEANS THAT THE DONE
20              ;                  WAS SET BY SOMETHING OTHER THAN THE WDT
21              ;
22              ;10.21          WDTDNC:  "WDT DONE DID NOT CLEAR"
23              ;                  THIS ERROR MESSAGE MEANS THAT THE DONE
24              ;                  FOR THE WDT DID NOT CLEAR WHEN IT SHOULD
25              ;                  HAVE.
26              ;
27              ;10.22          DENS:  "DATA ERROR NOT SET"
28              ;                  THIS ERROR MESSAGE MEANS THAT A DATA
29              ;                  ERROR BIT WAS NOT RETURNED IN THE WDT
30              ;                  DATA/STATUS WORD AND SHOULD HAVE BEEN.
31              ;
32              ;10.23          TONS:  "TIME OUT BIT NOT SET"
33              ;                  THIS ERROR MESSAGE MEANS THAT THE TIME
34              ;                  OUT BIT IS NOT SET IN THE WDT DATA/STATUS
35              ;                  WORD AND IT SHOULD HAVE BEEN.
36              ;
37              ;10.24          WNFIT:  "WORD NOT FOUND IN TABLE"
38              ;                  THIS ERROR MEANS THAT WHEN COMPARING THE
39              ;                  RANDOM DATA WORDS FORM THE WDT WITH THE
40              ;                  EXPECTED VALUE THIS WORD DID NOT COMPARE.
41              ;
42              ;10.25          PNC:  "PRIORITY NOT CORRECT"
43              ;                  THIS ERROR MESSAGE MEANS THAT ONE OF THE
44              ;                  PRIORITY TESTS FAILED.
45              ;
46              ;10.26          LROV:  (THIS MESSAGE EXPLAINS HOW TO TEST THE
47              ;                       LEFT RIGHT OVERRIDE SWITCH ON THE WDT
48              ;                       FRONT PANEL).
49              ;
50              ;10.27          SWDTD:  "SET WDT DIS SWITCH ON"
51              ;
52              ;10.28          DSDD:  "DONE DID NOT GET DISABLED BY SWITCH"
53              ;                  THIS ERROR MESSAGE MEANS THAT WDT DONE
54              ;                  DID NOT GET DISABLED BY WDT DIS SWITCH
55              ;                  BEING ON AND IT SHOULD HAVE.
56
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10010 .MAIN
01              ;
02              ;10.29          PAMSM:  "PUT WDT DISABLE SWITCH OFF AND
03              ;                        PUT AUTO/MAIN SWITCH TO MANUAL"
04              ;                  SELF - EXPLAINATORY.
05              ;
06              ;10.30          SNDRM:  "STATUS NOT DISABLED BY MANUAL"
07              ;                  THIS ERROR INDICATES THAT THE SWITCH
08              ;                  BEING IN MANUAL MODE DID NOT INHIBIT
09              ;                  THE TO STATUS BIT FROM APPEARING IN
10              ;                  THE WDT DATA/STATUS WORD AND IT SHOULD
11              ;                  HAVE.
12              ;
13              ;10.31          TURNP:  "PUT A/M SWITCH IN AUTO AND CYCLE
14              ;                        POWER SWITCH ON COMM CHASIS AFTER
15              ;                        TYPING C"
16              ;                  SELF EXPLANATORY
17              ;
18              ;10.32          PFBNS:  "POWER FAIL BIT NOT SET"
19              ;                  THIS ERROR MESSAGE INDICATES THAT THE
20              ;                  POWER FAIL BIT OF THE WDT DATA/STATUS
21              ;                  WORD WAS NOT RECEIVED AND IT SHOULD
22              ;                  HAVE BEEN.
23              ;
24              ;10.33          THEMD:  "WHEN POWER HAS BEEN RESTORED"
25              ;                  - APPEARS AT THE END OF PHASE 5
26              ;                  FOLLOWED BY MESSAGE 10.34
27              ;
28              ;10.34          TCTC:  "TYPE C TO CONTINUE"
29              ;                  OPERATOR MUST STRIKE A "C" KEY TO ALLOW
30              ;                  TEST TO CONTINUE THIS MESSAGE APPEARS
31              ;                  AT THE COMPLETION OF ALL PHASE FIVE
32              ;                  TESTS.
33              ;
34              ;10.35          DYWTCM:  "DO YOU WISH TO TEST THE FRONT
35              ;                         PANEL AGAIN 1=YES 0=NO"
36              ;                  THIS QUESTION IS ASKED AT THE END OF
37              ;                  PHASE FIVE AND IF 0 IS ANSWERED ONLY
38              ;                  PHASES 0-4 WILL BE LOOPED.
39              ;
40              ;10.36          TFTROI:  "THE FOLLOWING TESTS REQUIRE
41              ;                         OPERATOR INTERACTION."
42              ;                  A WARNING TO OPERATOR SO HE IS AWARE
43              ;                  THAT OPERATOR INTERACTION IS REQUIRED.
44              ;*****************************************************************
45              ;
46
```

```
10011 .MAIN
01
02              ; 11.1          TEST #                  NAME
03              ;               0                       TES0
04              ;
05              ; 11.1.1        OBJECTIVE OF THE TEST:
06              ;                 THIS TEST PUTS THE BOARD IN OFF LINE MODE
07              ;                 (NIOS DIAG) AND THEN ISSUES A REDUNDENT
08              ;                 RESET (DOA X,DIAG) AND COMPARES DATA READ
09              ;                 WITH DATA EXPECTED. EXPECTED DATA IS FROM
10              ;                 MASK TABLE (MSKTAB).
11              ;
12              ; 11.1.2         CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
13              ;                  AC0= DATA FROM TIMING GATES
14              ;                  AC1= DATA EXPECTED
15              ;                  AC2= ADDRESS OF EXPECTED DATA IN MASKTABLE
16              ;                  AC3= N.A.
17              ;
18              ; 11.1.3              HINTS IF FAILURE OCCURS
19              ; 11.1.3.1       CHECK THAT DUAL PORT CONTROLLER IS IN OFF-
20              ;                LINE MODE FROM THE PORT THAT THE DIAGNOSTIC
21              ;                IS BEING RUN FROM (RON OR LON=HIGH)
22              ;
23              ; 11.1.3.2       IF RON OR LON NOT ON CHECK RDIAG OR LDIAG
24              ;                TO RCON OR LCON
25              ; 11.1.3.3       CHECK FOR DEN TO DIAGNOSTIC TIMING GATES
26              ; 11.1.3.4       IF NO DEN CHECK FOR *LDATIA *RDATIA
27              ; 11.1.3.5       CHECK; THAT DOA X,DIAG CAUSES SET RRESET
28              ;                AND RRESET CAUSES *RRESET.
29              ; 11.1.3.6       CHECK ANY SIGNAL THAT IS IN ERROR, THAT IS
30              ;                BITS IN AC1 THAT DIFFER FROM AC0, BITS COR-
31              ;                RESPOND TO THE FOLLOWING SIGNALS.
32              ;                     BIT             SIGNAL
33              ;                      0               LIO
34              ;                      1               RIO
35              ;                      2               *RSEL
36              ;                      3               *CRQENB
37              ;                      4               LLIO
38              ;                      5               RLIO
39              ;                      6               *RDIS
40              ;                      7               *LDIS
41              ;                      8               *UMCL
42              ;                      9                *UMCR
43              ;                      10              SAS
44              ;                      11              XEN
45              ;                      12              CLR
46              ;                      13-15           -NOT USED-
47              ;
48              ;*****************************************************************
49              ;               * INDICATES INVERTED SIGNAL
```

```
10012 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.2          TEST #                  NAME
06              ;               1                       TES1
07              ;
08              ; 11.2.1        OBJECTIVE OF THE TEST:
09              ;                 THIS TEST DOES A "DSTR" SEQ, THEN ISSUES
10              ;                 1 CLOCK (NIOP DIAG) TO UMC (34/44) AND
11              ;                 CHECKS THAT EITHER RIO OR LIO SETS AND
12              ;                 ALL OTHER TIMING SIGNALS ARE CORRECT
13              ;                 THIS IS DONE BY READING DIAG TIMING GATES
14              ;                 AND COMPARING AGAINST A MASK WORD.
15              ;
16              ; 11.2.1.2         NOTE: DSTR SEQ IS EQUAL TO NIOS DIAG (OFF
17              ;                 LINE) FOLLOWED BY DOA X,DIAG.
18              ;                 (REDUNDENT RESET)
19              ;
20              ; 11.2.2           CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
21              ;                  SAME AS 11.1.2
22              ;
23              ; 11.2.3               HINTS IF FAILURE OCCURS
24              ; 11.2.3.1        CHECK THAT RDEV OR LDEV IS SET
25              ; 11.2.3.2        CHECK THAT RC100 HAS A TRANSITION CAUSED
26              ;                 BY IOPLS.
27              ; 11.2.3.3        IF NO RC100 CHECK *RC TO RC100 FLOP
28              ; 11.2.3.4        IF NO *RC CHECK RIOPLS OR LIOPLS TO *RC
29              ; 11.2.3.5        CHECK ANY SIGNALS IN ERROR(SEE 11.1.3.6)
30              ;*****************************************************************
31              ;               * INDICATES INVERTED SIGNAL
32
33
34              ;*****************************************************************
35              ;
36              ; 11.3          TEST #                  NAME
37              ;               2                       TESA1
38              ;
39              ; 11.3.1        OBJECTIVE OF THE TEST:
40              ;                 TO CHECK THAT LDEV OR RDEV IS GENERATED
41              ;                 BY DEVICE CODES 34/44,35/45, AND 77 ONLY:
42              ;                 IF FAILURE OCCURS TEST WILL OUTPUT FAILING
43              ;                 CODE.
44              ;
45              ; 11.3.2           CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
46              ;                  AC0= GOOD INSTRUCTION (60334 OR 60335 OR
47              ;                       60344 OR 60345 OR 60377)
48              ;                  AC1= INSTRUCTION THAT FAILED (603XX)
49              ;                       XX= DC THAT IS BAD.
50              ;                  AC2= POINTER TO GOOD INST.
51              ;                  AC3= 177777
52              ;
53              ; 11.3.3               HINTS IF FAILURE OCCURS
54              ;                 CHECK THAT ROM OUTPUT IS GENERATING
55              ;                 RDEV OR LDEV FOR FAILING CODE IF IT
56              ;                 IS THIS INDICATES A BAD ROM.
57              ;
58              ;*****************************************************************
```

```
!0013 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.4          TEST #                  NAME
06              ;               3                       TES81
07              ;
08              ; 11.4.1        OBJECTIVE OF THE TEST:
09              ;                  CHECK THAT ONLY DEVICE CODE 74 WILL
10              ;                  GENERATE LDIAG OR RDIAG. DIA 0,XX IS
11              ;                  DONE WITH XX STARTING AT 00 THRU 77.
12              ;                  TEST FAILS IF DIA INST OTHER THAN
13              ;                  DIA 0,DIAG GIVES CORRECT MASK WORD.
14              ;
15              ; 11.4.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                  AC0= GOOD INST (DIA 0,DIAG)
17              ;                  AC1= FAILING INST
18              ;                  AC2= POINTER TO GOOD INST
19              ;                  AC3= 17777
20              ;
21              ; 11.4.3               HINTS IF FAILURE OCCURS
22              ; 11.4.3.1        CHECK THE ROM OUTPUT IS LDIAG OR RDIAG
23              ;                  FOR FAILING DEVICE CODE. IF IT IS A BAD
24              ;                  ROM IS INDICATED.
25              ;
26              ;*****************************************************************
27
28
29              ;*****************************************************************
30              ;
31              ; 11.5          TEST #                  NAME
32              ;               4                       TES2
33              ;
34              ; 11.5.1        OBJECTIVE OF THE TEST:
35              ;                  CHECKS THAT *RSEL IS CLOCKED TO THE
36              ;                  CORRECT STATE FROM THE PORT THAT THE
37              ;                  DIAG IS BEING RUN FROM. ALSO CHECKS
38              ;                  THAT ALL OTHER TIMING SIGNALS ARE
39              ;                  CORRECT. THIS TEST DOES A DSTR SEQ
40              ;                  ( 11.1.1) FOLLOWED BY 2 CLOCKS
41              ;                  TO UMC FOLLOWED BY A DEND SEQ.
42              ;
43              ; 11.5.1.2        NOTE: DEND= DIAG TIMING GATE READ
44              ;                  AND COMPARE AGAINST BAD MASK.
45              ;
46              ; 11.5.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
47              ;                  ** SAME AS 11.1.2
48              ;
49              ; 11.5.3               HINTS IF FAILURE OCCURS
50              ; 11.5.3.1        CHECK FOR RC100 CLOCK TO EN FLOP
51              ; 11.5.3.2        CHECK THRU TO RSEL
52              ; 11.5.3.3        CHECK RSEL TO DIAG TIMING GATES
53              ; 11.5.3.4        CHECK ANY OTHER SIGNALS IN ERROR
54              ;                  (REFER TO 11.1.3.6)
55              ;
56              ;
57              ;*****************************************************************
58              ;               * INDICATES INVERTED SIGNAL
```

```
!0014 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.6          TEST #                  NAME
06              ;               5                       TES3
07              ;
08              ; 11.6.1        OBJECTIVE OF THE TEST:
09              ;                  CHECKS THAT SAS SETS AFTER 3 IOPLS
10              ;                  TO DIAG AND THAT ALL OTHER SIGNALS
11              ;                  ARE CORRECT THE TEST SEQ IS DSTR
12              ;                  (11.1.1) FOLLOWED BY 3 IOPLS TO UMC
13              ;                  FOLLOWED BY DEND (11.5.1.2)
14              ;
15              ; 11.6.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                  ** SAME AS 11.1.2
17              ;
18              ; 11.6.3               HINTS IF FAILURE OCCURS
19              ; 11.6.3.1        IF SAS NOT SET CHECK RC100 GETS TO SHIFT
20              ;                  REGISTER.
21              ; 11.6.3.2        CHECK THAT SAS GETS TO DIAG TIMING GATES
22              ; 11.6.3.3        THAT THE ENAB IS GENERATED CORRECTLY
23              ; 11.6.3.4        CHECK ANY OTHER TIMING SIGNALS IN ERROR
24              ;                  (REFER TO 11.1.3.6)
25              ;*****************************************************************
26
27
28
29
30
31              ;*****************************************************************
32              ;
33              ; 11.7          TEST #                  NAME
34              ;               6                       TES4
35              ;
36              ; 11.7.1        OBJECTIVE OF THE TEST:
37              ;                  CHECKS THAT ALL DIAGNOSTIC
38              ;                  TIMING SIGNALS REMAIN THE SAME AS IN
39              ;                  TES3 AFTER ISSUING 4 CLOCKS TO UMC.
40              ;                  TEST SEQ IS DSTR(11.1.1.2) FOLLOWED
41              ;                  BY 4 IOPLS TO UMC FOLLOWED BY DEND
42              ;                  (11.5.1.2)
43              ; 11.7.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
44              ;                  ** SAME AS 11.1.2
45              ;
46              ; 11.7.3               HINTS IF FAILURE OCCURS
47              ; 11.7.3.1        CHECK SIGNALS IN ERROR AGAINST
48              ;                  LIST IN 11.1.3.6
49              ;*****************************************************************
50              ;               * INDICATES INVERTED SIGNAL
```

```
10015 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.8          TEST #                  NAME
06              ;               7                       TES5
07              ;
08              ; 11.8.1        OBJECTIVE OF THE TEST:
09              ;                  CHECKS THAT RDIS OR LDIS SETS AFTER
10              ;                  5 CLOCKS TO UMC, AND THAT ALL OTHER
11              ;                  SIGNALS ARE CORRECT. TEST SEQ. IS
12              ;                  DSTR(11.1.1.2) FOLLOWED BY 5 CLOCKS
13              ;                  TO UMC FOLLOWED BY A DEND SEQ
14              ;                  (11.5.1.2)
15              ;
16              ; 11.8.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                  ** SAME AS 11.1.2
18              ;
19              ; 11.8.3                HINTS IF FAILURE OCCURS
20              ; 11.8.3.1        IF *RDIS OR *LDIS IS NOT SET CHECK THAT
21              ;                  SET RAS OR SET LAS OCCURS.
22              ; 11.8.3.2        CHECK *RDIS OR *LDIS TO DIAG TIMING GATES
23              ; 11.8.3.3        CHECK THAT SET LAS OR SET RAS IS PRODUCED
24              ;                  CORRECTLY BY TIMING MUX.
25              ; 11.8.3.4        IF ANY OTHER SIGNALS IN ERROR REFER TO
26              ;                  11.1.3.6
27              ;*****************************************************************
28
29
30              ;*****************************************************************
31              ;
32              ; 11.9          TEST #                  NAME
33              ;               8                       TES6
34              ;
35              ; 11.9.1        OBJECTIVE OF THE TEST:
36              ;                  CHECKS THAT TIMING SIGNALS REMAIN THE
37              ;                  SAME AS TES5 BUT AFTER ISSUING 6 CLOCKS
38              ;                  TO UMC.
39              ;
40              ; 11.9.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
41              ;                  ** SAME AS 11.1.2
42              ;
43              ; 11.9.3                HINTS IF FAILURE OCCURS
44              ; 11.9.3.1        CHECK FAILING SIGNAL REFER TO 11.1.3.6
45              ;
46              ;*****************************************************************
47              ;               * INDICATES INVERTED SIGNAL
```

```
10016 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.10         TEST #                  NAME
06              ;               9                       TES7
07              ;
08              ; 11.10.1       OBJECTIVE OF THE TEST:
09              ;                  CHECKS THAT XEN SETS AFTER ISSUING
10              ;                  7 CLOCKS TO UMC AND THAT ALL OTHER
11              ;                  TIMING SIGNALS ARE CORRECT TEST
12              ;                  SEQ IS: DSTR (11.1.1.2) FOLLOWED
13              ;                  BY 7 CLOCKS TO UMC FOLLOWED BY DEND
14              ;                  (11.5.1.2)
15              ;
16              ; 11.10.2         CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                  ** SAME AS 11.1.2
18              ;
19              ; 11.10.3               HINTS IF FAILURE OCCURS
20              ; 11.10.3.1       IF XEN NOT SET CHECK XEN TO DIAG TIMING
21              ;                  GATES.
22              ; 11.10.3.2       CHECK OUTPUT FROM TIMING SHIFT REG TO XEN
23              ;                  OR GATE.
24              ; 11.10.3.3       IF OTHER SIGNALS IN ERROR REFER TO 11.1.3.6
25              ;*****************************************************************
26
27
28              ;*****************************************************************
29              ;
30              ; 11.            TEST #                  NAME
31              ;               10                      TES8
32              ;
33              ; 11.11.1        OBJECTIVE OF THE TEST:
34              ;                  CHECK THAT TIMING SIGNALS ARE THE SAME
35              ;                  AS IN TES7 AFTER 8 CLOCKS.
36              ;                  TEST SEQ IS:  DSTR (11.1.1.2) FOLLOWED
37              ;                  BY 8 CLOCKS TO UMC FOLLOWED BY DEND
38              ;                  (11.5.1.2)
39              ;
40              ; 11.11.2         CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
41              ;                  ** SAME AS 11.1.2
42              ;
43              ; 11.11.3               HINTS IF FAILURE OCCURS
44              ; 11.11.3.1       CHECK FAILING SIGNAL-REFER TO 11.1.3.6
45              ;
46              ;*****************************************************************
```

```
!0017 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.12          TEST #                    NAME
06              ;                11                        TES9
07              ;
08              ; 11.12.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS THAT TIMING SIGNALS ARE THE
10              ;                   SAME AS TES7 AFTER 9 CLOCKS. TEST
11              ;                   SEQ IS: DSTR (11.1.1.2) FOLLOWED
12              ;                   BY 9 CLOCKS TO UMC FOLLOWED BY
13              ;                   DSMD (11.5.1.2)
14              ;
15              ; 11.12.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                   ** SAME AS 11.1.2
17              ;
18              ; 11.12.3                HINTS IF FAILURE OCCURS
19              ; 11.12.3.1         CHECK FAILING SIGNAL - REFER TO 11.1.3.6
20              ;
21              ;*****************************************************************
22
23
24              ;*****************************************************************
25              ;
26              ; 11.13          TEST #                    NAME
27              ;                12                        TES10
28              ;
29              ; 11.13.1        OBJECTIVE OF THE TEST:
30              ;                   CHECK THAT TIMING SIGNALS ARE THE SAME
31              ;                   AS IN TES7 AFTER 10 CLOCKS. TEST SEQ IS:
32              ;                   DSTR (11.1.1.2) FOLLOWED BY 10 CLOCKS TO
33              ;                   UMC FOLLOWED BY DEND (11.5.1.2).
34              ;
35              ; 11.13.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
36              ;                   ** SAME AS 11.1.2
37              ;
38              ; 11.13.3                HINTS IF FAILURE OCCURS
39              ; 11.13.3.1         CHECK FAILING SIGNAL - REFER TO 11.1.3.6
40              ;
41              ;*****************************************************************
```

```
!0018 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.14          TEST #                    NAME
06              ;                13                        TES11
07              ;
08              ; 11.14.1        OBJECTIVE OF THE TEST:
09              ;                   CHECK THAT SAS CLEARS AND THAT ALL
10              ;                   OTHER TIMING SIGNALS ARE CORRECT
11              ;                   AFTER 11 CLOCKS TO UMC TEST SEQ
12              ;                   IS: DSTR (11.1.1.2) FOLLOWED BY 11
13              ;                   CLOCK TO UMC FOLLOWED BY DEND
14              ;                   (11.5.1.2)
15              ;
16              ; 11.14.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                   ** SAME AS 11.1.2
18              ;
19              ; 11.14.3                HINTS IF FAILURE OCCURS
20              ; 11.14.3.1         CHECK OUTPUT OF TIMING SHIFT REGISTER IS
21              ; 11.14.3.2         CORRECT CHECK FAILING SIGNAL - REFER TO
22              ;                   11.1.3.6
23              ;
24              ;*****************************************************************
25
26
27              ;*****************************************************************
28              ;
29              ; 11.15          TEST #                    NAME
30              ;                14                        TES12
31              ;
32              ; 11.15.1        OBJECTIVE OF THE TEST:
33              ;                   SAME AS TES11 EXCEPT 12 CLOCKS ARE ISSUED.
34              ;
35              ; 11.15.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
36              ;                   ** SAME AS 11.1.2
37              ;
38              ; 11.15.3                HINTS IF FAILURE OCCURS
39              ; 11.15.3.1         CHECK - FAILING SIGNAL - REFER TO
40              ;                   11.1.3.6
41              ;
42              ;*****************************************************************
43
44
45              ;*****************************************************************
46              ;
47              ; 11.16          TEST #                    NAME
48              ;                15                        TES13
49              ;
50              ; 11.16.1        OBJECTIVE OF THE TEST:
51              ;                   SAME AS TES11 BUT ISSUE 13 CLOCKS
52              ;
53              ; 11.16.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
54              ;                   ** SAME AS 11.1.2
55              ;
56              ; 11.16.3                HINTS IF FAILURE OCCURS
57              ; 11.16.3.1         CHECK FAILING SIGNAL REFER TO 11.1.3.6
58              ;
59              ;*****************************************************************
```

```
10019 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.17          TEST #                  NAME
06              ;                16                      TES14
07              ;
08              ; 11.17.1        OBJECTIVE OF THE TEST:
09              ;                   SAME AS TES11 BUT ISSUE 14 CLOCKS
10              ;
11              ; 11.17.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
12              ;                   ** SAME AS 11.1.2
13              ;
14              ; 11.17.3               HINTS IF FAILURE OCCURS
15              ; 11.17.3.1         CHECK FAILING SIGNAL REFER TO 11.1.3.6
16              ;*****************************************************************
17
18
19              ;*****************************************************************
20              ;
21              ; 11.18                  TEST #                  NAME
22              ;                       17                      TES15
23              ;
24              ; 11.18.1        OBJECTIVE OF THE TEST:
25              ;                   CHECK THAT CLR SETS AFTER 15 CLOCKS TO
26              ;                   UMC AND THAT ALL OTHER TIMING SIGNALS
27              ;                   ARE CORRECT. TEST SEQ IS: DSTR (11.1.1.2)
28              ;                   FOLLOWED BY 15 CLOCKS TO UMC FOLLOWED BY
29              ;                   DEND (11.5.1.2)
30              ;
31              ; 11.18.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
32              ;                   ** SAME AS 11.1.2
33              ;
34              ; 11.18.3               HINTS IF FAILURE OCCURS
35              ; 11.18.3.1         CHECK CLR TO DIAG TIMING GATES
36              ; 11.18.3.2         CHECK OUTPUT OF TIMING SHIFT REG TO
37              ;                   CLR AND GATE
38              ; 11.18.3.3         CHECK FAILING SIGNAL REFER TO 11.1.3.6
39              ;
40              ;*****************************************************************
41
42
43              ;*****************************************************************
44              ;
45              ; 11.19          TEST #                  NAME
46              ;                18                      TES16
47              ; 11.19.1        OBJECTIVE OF THE TEST:
48              ;                   CHECK THAT TIMING SIGNALS REMAIN THE
49              ;                   SAME AS IN TES15 AFTER 16 CLOCKS TO UMC.
50              ;
51              ; 11.19.2          CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
52              ;                   ** SAME AS 11.1.2
53              ;
54              ; 11.19.3               HINTS IF FAILURE OCCURS
55              ;                   CHECK FAILING SIGNAL - REFER TO 11.1.3.6
56              ;
57              ;*****************************************************************
```

```
10020 .MAIN
01              ;*****************************************************************
02              ;
03              ; 11.20          TEST #                  NAME
04              ;                19                      TES17
05              ;
06              ; 11.20.1        OBJECT OF THE TEST:
07              ;                   CHECK THAT *RDIS OR *LDIS CLEARS AFTER
08              ;                   17 CLOCKS TO UMC AND THAT ALL OTHER TIMING
09              ;                   SIGNALS ARE CORRECT. TEST SEQ IS:
10              ;                   DSTR (11.1.2) FOLLOWED BY 17 CLOCKS TO
11              ;                   UMC FOLLOWED BY DEND (11.5.1.2)
12              ;
13              ; 11.20.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
14              ;                   ** SAME AS 11.1.2
15              ;
16              ; 11.20.3        HINTS IF FAILURE OCCURS
17              ; 11.20.3.1      CHECK SIGNALS FROM CLR AND GATE TO RDIS
18              ;                OR LDIS FLOPS.
19              ;
20              ; 11.20.3.2      CHECK FAILING SIGNAL - REFER TO 11.1.3.6
21              ;
22              ;*****************************************************************
23
24
25              ;*****************************************************************
26              ;
27              ; 11.21          TEST #                  NAME
28              ;                20                      TES18
29              ;
30              ; 11.21.1        OBJECTIVE OF THE TEST:
31              ;                  THAT TIMING SIGNALS REMAIN SAME AS
32              ;                  TES17 AFTER 17 CLOCKS TO UMC AND 1
33              ;                  CLOCK TO NON UMC. TEST SEQ IS:
34              ;                  DSTR (11.1.1.2) FOLLOWED BY 17
35              ;                  CLOCKS TO UMC FOLLOWED BY 1 CLOCK
36              ;                  TO NON UMC FOLLOWED BY DEND (1.5.1.2)
37              ;
38              ; 11.21.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
39              ;                  ** SAME AS 11.1.2
40              ;
41              ; 11.21.3        HINTS IF FAILURE OCCURS
42              ; 11.21.3.1        CHECK FAILING SIGNAL - REFER TO 11.1.3.6
43              ;
44              ;*****************************************************************
45              ;               * INDICATES INVERTED SIGNAL
46
47
```

```
10021 .MAIN
01              ;*************************************************************
02              ;
03              ; 11.22          TEST #                  NAME
04              ;                21                      TES19
05              ;
06              ; 11.22.1        OBJECTIVE OF THE TEST:
07              ;                  CHECK THAT XEN & CLR RESET AND THAT
08              ;                  RIO RESETS AFTER 17 CLOCKS TO UMC
09              ;                  & 2 TO NON-UMC AND THAT ALL OTHER
10              ;                  TIMING SIGNALS ARE CORRECT.
11              ;
12              ; 11.22.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
13              ;                  ** SAME AS 11.1.2
14              ;
15              ; 11.22.3        HINTS IF FAILURE OCCURS
16              ; 11.22.3.1        CHECK OUTPUT OF TIMING SHIFT REG
17              ; 11.22.3.2        CHECK FAILING SIGNAL-REFER TO 11.1.3.6
18              ;
19              ;*************************************************************
20              ;*************************************************************
21              ;
22              ; 11.23          TEST #                  NAME
23              ;                22                      TES20
24              ;
25              ; 11.23.1        OBJECTIVE OF THE TEST:
26              ;                   SAME AS TES19 BUT 3 CLOCKS TO NON-UMC
27              ;
28              ; 11.23.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
29              ;                   ** SAME AS 11.1.2
30              ;
31              ; 11.23.3        HINTS IF FAILURE OCCURS
32              ; 11.23.3.1       CHECK FAILING SIGNAL-REFER TO 11.1.3.6
33              ;
34              ;*************************************************************
35              ;*************************************************************
36              ;
37              ; 1111            TEST #                  NAME
38              ;                23                      TES21
39              ;
40              ; 11.24.1        OBJECTIVE OF THE TEST:
41              ;                   CHECKS THAT *RSEL CHANGES STATE AFTER
42              ;                   17 CLOCKS TO UMC 4 CLOCKS TO NON-UMC
43              ;                   TEST SEQ IS: DSTR (11.1.17) FOLLOWED
44              ;                   BY 17 UMCCLOCKS, 4 NON-UMC CLOCKS FOLLOWED
45              ;                   BY DEND (11.5.1.2)
46              ;
47              ; 11.24.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
48              ;                   ** SAME AS 11.1.2
49              ; 11.24.3        HINTS IF FAILURE OCCURS
50              ; 11.24.3.1        CHECK RIO/LIO FLOP RESETS
51              ; 11.24.3 2        CHECK THAT RDEV/LDEV IS NOT GENERATED FOR
52              ;                  NON-UMC CLOCKS.
53              ; 11.24.3.3        CHECK FAILING SIGNAL - REFER TO 11.1.3.6
54              ;
55              ;*************************************************************
56
```

```
10022 .MAIN
01
02              ;*************************************************************
03              ;
04              ; 11.25          TEST #                  NAME
05              ;                24                      TES22
06              ;
07              ; 11.25.1        OBJECTIVE OF THE TEST:
08              ;                   CHECKS *RSEL CHANGES AGAIN-
09              ;                   TEST SEQ: DSTR, 17 CLOCKS TO UMC
10              ;                   5 CLOCKS TO NON-UMC, DEND (-11.5.1.2).
11              ;
12              ; 11.25.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
13              ;                   ** SAME AS 11.1.2
14              ;
15              ; 11.25.3        HINTS IF FAILURE OCCURS
16              ; 11.25.3.1        CHECK FAILING SIGNAL-REFER TO 11.1.3.6 .
17              ;
18              ;
19              ;*************************************************************
20
21              ;*************************************************************
22              ;
23              ; 11.26          TEST #                  NAME
24              ;                25                      TES23
25              ;
26              ; 11.26.1        OBJECTIVE OF THE TEST:
27              ;                   CHECKS FOR LONG I/O, CHECK THAT I/O TIMING
28              ;                   SIGNALS ARE SAME AS TES17 AFTER 47 CLOCKS
29              ;                   TO UMC. TEST SEQ: DSTR (11.1.1.2) FOLLOWED
30              ;                   BY 15 CLOCKS UMC, 32 CLOCKS UMC, DEND.
31              ;                   (11.5.1.2)
32              ;
33              ; 1.26.2         CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
34              ;                   ** SAME AS 11.1.2
35              ;
36              ; 11.26.3        HINTS IF FAILURE OCCURS
37              ; 11.26.3        CHECK FAILING SIGNAL REFER TO 11.1.3.6
38              ;
39              ;
40              ;*************************************************************
41              ;                * INDICATES INVERTED SIGNAL
42
```

```
10023 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.27          TEST #                  NAME
06              ;                26                      TES24
07              ;
08              ; 11.27.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS THAT LONG I/O SIGNAL (RLIO/LLIO)
10              ;                   SETS AFTER 79 CLOCKS TO UMC AND THAT
11              ;                   ALL OTHER TIMING SIGNALS ARE CORRECT
12              ;                   TEST SEQ: DSTR (11.1.1.2) FOLLOWED
13              ;                   BY 15,32,32, CLOCKS TO UMC FOLLOWED
14              ;                   BY DEND (11.5.1.2)
15              ;
16              ; 11.27.2        CONTENTS OF DUC ACCS WHEN FAILURE OCCURS
17              ;                   **SAME AS 11.1.2
18              ;
19              ; 11.27.3        HINTS IF FAILURE OCCURS
20              ; 11.27.3.1         CHECK LLIO OR RLIO TO DIAG TIMING GATES
21              ; 11.27.3.2         CHECK LONG I/O COUNTER & QUAD FLOP FOR
22              ;                   CORRECT OPERATION.
23              ; 11.27.3.3         CHECK FAILING SIGNAL- REFER TO FIG 11.1.3.6
24              ;
25              ;
26              ;*****************************************************************
27
28
29
30              ;*****************************************************************
31              ;
32              ; 11.28          TEST #                  NAME
33              ;                27                      TES25
34              ;
35              ; 11.28.1        OBJECTIVE OF THE TEST:
36              ;                CHECKS THAT LLIO OR RLIO IS CLEARED BY
37              ;                CLR TEST SEQ: DSTR (11.1.1.2) FOLLOWED
38              ;                BY 79 CLOCKS TO UMC & TWO TO NON UMC
39              ;                FOLLOWED BY DEND (11.5.1.2).
40              ;
41              ; 11.28.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
42              ;                ** SAME AS 11.1.2
43              ;
44              ; 11.28.3              HINTS IF FAILURE OCCURS
45              ; 11.28.3.1         CHECK CLR TO LONG I/O QUAD FLOP RESET
46              ; 11.28.3.2         CHECK FAILING SIGNAL REFER TO  11.13.6
47              ;
48              ;
49              ;*****************************************************************
50
```

```
10024 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.29          TEST #                  NAME
06              ;                28                      TES26
07              ;
08              ; 11.29.1        OBJECTIVE OF THE TEST:
09              ;                   CHECK THAT AFTER 79 CLOCKS TO UMC THAT
10              ;                   SETS LONG I/O 3 MORE CLOCKS TO NON UMC
11              ;                   CLEARS LONG I/O AND THAT RSEL CHANGES
12              ;                   STATE. TEST SEQ: DSTR(11.1.1.2) 79
13              ;                   CLOCKS TO UMC, 3 TO NON UMC,DEND (11.5.1.2)
14              ;
15              ; 11.29.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                   ** SAME AS 11.1.2
17              ;
18              ; 11.29.3        HINTS IF FAILURE OCCURS
19              ; 11.29.3.1         CFS RTF 11.1.3.6
20              ;
21              ;
22              ;*****************************************************************
23
24
25
26              ;*****************************************************************
27              ;
28              ; 11.30          TEST #                  NAME
29              ;                29                      TES27
30              ;
31              ; 11.30.1        OBJECTIVE OF THE TEST:
32              ;                   THAT AFTER LONG I/O IS SET THAT IT IS
33              ;                   RESET BY REDUNDENT RESET.
34              ;                   TEST SEQ: DSTR (11.1.1.2) 79 CLOCKS UMC
35              ;                   REDUNDENT RESET, DEND (11.5.1.2)
36              ;
37              ; 11.30.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
38              ;                   ** SAME AS 11.1.2
39              ;
40              ; 11.30.3        HINTS IF FAILURE OCCURS
41              ; 11.30.3.1         CHECKS *RRESET TO LONG I/O QUAD FLOP
42              ;                   RESET.
43              ; 11.30.3.2         CFS RTF 11.1.1.6
44              ;
45              ;
46              ;*****************************************************************
47              ;                * INDICATES INVERTED SIGNAL
48
```

```
10025 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.31          TEST #                    NAME
06              ;                30                        TES28
07              ;
08              ; 11.31.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS THAT RIO OR LIO SET AFTER SETTING
10              ;                   LDIAGF OR RDIAGF THIS SIMULATES I/O
11              ;                   FROM OTHER SIDE AND THAT OTHER TIMING
12              ;                   SIGNALS ARE CORRECT. TEST SEQ FORCE,
13              ;                   DEND (11.5.1.2).
14              ;
15              ; 11.31.1.2         NOTE FORCE = DSTR (11.1.1.2) 7 CLOCKS
16              ;                   TO UMC, DOB DIAG WITH LDIAGF OR RDIAGF
17              ;                   SET, REDUNDENT RESET.
18              ;
19              ; 11.31.2         CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
20              ;                   ** SAME AS 11.1.2
21              ;
22              ; 11.31.3         HINTS IF FAILURE OCCURS
23              ; 11.31.3.1         CHECK LDIAGF/RDIAGF TO LIO OR RIO FLOP
24              ; 11.31.3.2         CHECK *DOB FROM DIAG IN/MUX TO DOB FLOP
25              ; 11.31.3.3         CHECK RDATOB OR LDATOB TO DIAG INPUT MUX
26              ; 11.31.3.4         CHECK FAILING SIGNAL REFER TO 11.1.3.6
27              ;
28              ;
29              ;*****************************************************************
30
```

```
10026 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.32          TEST #                    NAME
06              ;                31                        TES29
07              ;
08              ; 11.32.1        OBJECTIVE OF THE TEST:
09              ;                   CHECK I/O FROM OPP SIDE AFTER 1 CLOCK TO
10              ;                   NON-UMC=
11              ;                   TEST SEQ: FORCE,(11.31.1.2)1CLOCK TO UMC,
12              ;                   DEND(11.5.1.2)
13              ;
14              ; 11.32.2         CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                   ** SAME AS 11.1.2
16              ;
17              ; 11.32.3         HINTS IF FAILURE OCCURS
18              ; 11.32.3.1         SEE HINTS FOR TES2
19              ;
20              ;
21              ;*****************************************************************
22              ;*****************************************************************
23              ;
24              ; 11.33          TEST #                    NAME
25              ;                32                        TES30
26              ;
27              ; 11.33.1        OBJECTIVE OF THE TEST:
28              ;                   CHECKS OPP - I/O'S AFTER 2 CLOCKS
29              ;                   TEST SEQ: FORCE (11.31.1.2) 2 CLOCKS
30              ;                   TO NON-UMC DEND (11.5.1.2)
31              ;
32              ; 11.33.2         CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
33              ;                   **SAME AS 11.1.2
34              ;
35              ; 11.33.3         HINTS IF FAILURE OCCURS
36              ; 11.33.3.1         SEE HINTS FOR TES3
37              ;
38              ;
39              ;*****************************************************************
40
41
42              ;*****************************************************************
43              ;
44              ; 11.34          TEST #                    NAME
45              ;                33                        TES31
46              ;
47              ; 11.34.1        OBJECTIVE OF THE TEST:
48              ;                   CHECK TIMING FOR OPP I/O AFTER 3 CLOCKS
49              ;
50              ; 11.34.2         CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
51              ;                   ** SAME AS 11.1.1.2
52              ;
53              ; 11.34.3         HINTS IF FAILURE OCCURS
54              ;                   ** SEE HINTS FOR TES3
55              ;
56              ;
57              ;*****************************************************************
58
```

```
10027 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.35         TEST #                  NAME
06              ;               34                      TES32
07              ;
08              ; 11.35.1       OBJECTIVE OF THE TEST:
09              ;                  CHECK TIMING FOR OPP I/O AFTER 4 CLOCKS
10              ;
11              ; 11.35.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
12              ;                  ** SAME AS 11.1.1.2
13              ;
14              ; 11.35.3       HINTS IF FAILURE OCCURS
15              ;                  ** SEE HINTS FOR TES5
16              ;
17              ;
18              ;*****************************************************************
19
20
21              ;*****************************************************************
22              ;
23              ; 11.36         TEST #                  NAME
24              ;               35                      TES33
25              ;
26              ; 11.36.1       OBJECTIVE OF THE TEST:
27              ;                  CHECK OPP I/O TIMING AFTER 5 CLOCKS
28              ;
29              ; 11.36.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
30              ;                  **SAME AS 11.1.1.2
31              ;
32              ; 11.36.3       HINTS IF FAILURE OCCURS
33              ;                  SEE HINTS FOR TES5
34              ;
35              ;
36              ;*****************************************************************
37
38
39
40              ;*****************************************************************
41              ;
42              ; 11.37         TEST #                  NAME
43              ;               36                      TES34
44              ;
45              ; 11.37.1       OBJECTIVE OF THE TEST:
46              ;                  CHECK OPP I/O TIMING AFTER 6 CLOCKS
47              ;
48              ; 11.37.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
49              ;                  ** SAME AS 11.1.1.2
50              ;
51              ; 11.37.3       HINTS IF FAILURE OCCURS
52              ;                  SEE TES7 HINTS.
53              ;
54              ;
55              ;*****************************************************************
56
```

```
10028 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.38         TEST #                  NAME
06              ;               37                      TES35
07              ;
08              ; 11.38.1       OBJECTIVE OF THE TEST:
09              ;                  CHECK OPP I/O TIMING AFTER 7 CLOCKS
10              ;
11              ; 11.38.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
12              ;                  ** SAME AS 11.1.1.2
13              ;
14              ; 11.38.3       HINTS IF FAILURE OCCURS
15              ;                  SEE HINTS FOR TES7
16              ;
17              ;*****************************************************************
18
19
20
21              ;*****************************************************************
22              ;
23              ; 11.39         TEST #                  NAME
24              ;               38                      TES36
25              ;
26              ; 11.39.1       OBJECTIVE OF THE TEST:
27              ;                  CHECK OPP I/O TIMING AFTER 8 CLOCKS
28              ;
29              ; 11.39.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
30              ;                  **SAME AS 11.1.1.2
31              ;
32              ; 11.39.3       HINTS IF FAILURE OCCURS
33              ;                  SEE HINTS FOR TES7
34              ;
35              ;
36              ;*****************************************************************
37
38
39              ;*****************************************************************
40              ;
41              ; 11.40         TEST #                  NAME
42              ;               39                      TES37
43              ;
44              ; 11.40.1       OBJECTIVE OF THE TEST:
45              ;                 CHECK OPP I/O TIMING AFTER 9 CLOCKS
46              ;
47              ; 11.40.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
48              ;                  ** SAME AS 11.1.1.2
49              ;
50              ; 11.40.3       HINTS IF FAILURE OCCURS
51              ;                  SEE HINTS FOR TES7
52              ;
53              ;
54              ;*****************************************************************
55
```

```
10029 .MAIN
01
02
03              ;*************************************************************
04              ;
05              ; 11.41          TEST #                  NAME
06              ;                40                      TES38
07              ;
08              ; 11.41.1        OBJECTIVE OF THE TEST:
09              ;                  CHECK OPP I/O TIMING AFTER 10 CLOCKS
10              ;
11              ; 11.41.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
12              ;                   **SAME AS 11.1.1.2
13              ;
14              ; 11.41.3        HINTS IF FAILURE OCCURS
15              ;                   SEE HINTS FOR TES11
16              ;
17              ;
18              ;*************************************************************
19
20
21              ;*************************************************************
22              ;
23              ; 11.42          TEST #                  NAME
24              ;                41                      TES39
25              ;
26              ; 11.42.1        OBJECTIVE OF THE TEST:
27              ;                   CHECK OPP I/O TIMING AFTER 11 CLOCKS
28              ;
29              ;11.42.2         CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
30              ;                  SAME AS 11.1.1.2
31              ;
32              ; 11.42.3        HINTS IF FAILURE OCCURS
33              ;                   USE HINTS FOR TES11
34              ;
35              ;
36              ;*************************************************************
37
38
39              ;*************************************************************
40              ;
41              ; 11.43          TEST #                  NAME
42              ;                42                      TES40
43              ;
44              ; 11.43.1        OBJECTIVE OF THE TEST:
45              ;                  CHECK OPP I/O TIMING AFTER 12 CLOCKS
46              ;
47              ; 11.43.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
48              ;                  SAME AS 11.1.1.2
49              ;
50              ; 11.43.3        HINTS IF FAILURE OCCURS
51              ;                   USE HINTS FOR TES11
52              ;
53              ;
54              ;*************************************************************
55
56
```

```
10030 .MAIN
01
02
03              ;*************************************************************
04              ; 11.44          TEST #                  NAME
05              ;                43                      TES41
06              ;
07              ; 11.44.1        OBJECTIVE OF THE TEST:
08              ;                  CHECK OPP I/O TIMING FOR 13 CLOCKS
09              ;
10              ; 11.44.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
11              ;                   ** SAME 11.1.1.2
12              ;
13              ; 11.44.3        HINTS IF FAILURE OCCURS
14              ;                  SEE HINTS FOR TES11
15              ;*************************************************************
16              ;*************************************************************
17              ; 11.45          TEST #                  NAME
18              ;                44                      TES42
19              ;
20              ; 11.45.1        OBJECTIVE OF THE TEST:
21              ;                  CHECK OPP I/O TIMING FOR 14 CLOCKS
22              ;
23              ; 11.45.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
24              ;                   SAME AS 11.1.1.2
25              ;
26              ; 11.45.3        HINTS IF FAILURE OCCURS
27              ;                   SEE HINTS FOR TES15
28              ;*************************************************************
29              ;*************************************************************
30              ; 11.46          TEST #                  NAME
31              ;                45                      TES43
32              ;
33              ; 11.46.1        OBJECTIVE OF THE TEST:
34              ;                  CHECK OPP I/O TIMING AFTER 15 CLOCKS
35              ;
36              ; 11.46.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
37              ;                   ** SAME AS 11.1.1.2
38              ;
39              ; 11.46.3        HINTS IF FAILURE OCCURS
40              ;                   SEE HINTS FOR TES15
41              ;*************************************************************
42              ;*************************************************************
43              ; 11.47          TEST #                  NAME
44              ;                46                      TES44
45              ;
46              ; 11.47.1        OBJECTIVE OF THE TEST:
47              ;                   CHECK OPP I/O TIMING AFTER 16 CLOCKS.
48              ;
49              ; 11.47.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
50              ;                   **SAME AS 11.1.1.2
51              ;
52              ; 11.47.3        HINTS IF FAILURE OCCURS
53              ;                   SEE HINTS FOR TES17
54              ;*************************************************************
55
```

```
10031 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.48          TEST #                    NAME
06              ;                47                        TES45
07              ;
08              ; 11.48.1        OBJECTIVE OF THE TEST:
09              ;                   CHECK OPP I/O TIMING AFTER 16 NON UMC
10              ;                   CLOCKS RESET FORCE AND 1 NON UMC CLOCK.
11              ;
12              ; 11.48.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
13              ;                   **SAME AS 11.1.1.2
14              ;
15              ; 11.48.3        HINTS IF FAILURE OCCURS
16              ;                   SEE HINTS FOR TES17
17              ;
18              ;*****************************************************************
19
20
21              ;*****************************************************************
22              ;
23              ; 11.49          TEST #                    NAME
24              ;                48                        TES46
25              ;
26              ; 11,49.1        OBJECTIVE OF THE TEST:
27              ;                   CHECK OPP I/O TIMING FOR 16 NON UMC CLOCKS
28              ;                   RESET FORCE AND 2 NON-UMC CLOCKS.
29              ;
30              ; 11.49.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
31              ;                   **SAME AS 11.1.1.2
32              ;
33              ; 11.49.3        HINTS IF FAILURE OCCURS
34              ;                   SEE HINTS FOR TES19
35              ;
36              ;*****************************************************************
37
38
39              ;*****************************************************************
40              ;
41              ; 11.50          TEST #                    NAME
42              ;
43              ;                49                        TES47
44              ;
45              ; 11.50.1        OBJECTIVE OF THE TEST:
46              ;                   CHECK OPP I/O TIMING AFTER 16
47              ;                   NON UMC CLOCKS, FOLLOWED BY RESET
48              ;                   FORCE, FOLLOWED BY 3 NON UMC CLOCKS.
49              ;
50              ; 11.50.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
51              ;                   **SAME AS 11.1.1.2
52              ;
53              ; 11.50.3        HINTS IF FAILURE OCCURS
54              ;                   SAME HINTS FOR TES20
55              ;
56              ;
57              ;*****************************************************************
58
```

```
10032 .MAIN
01              ;*****************************************************************
02              ; 11.51          TEST #                    NAME
03              ;                50                        TES48
04              ;
05              ; 11.51.1        OBJECTIVE OF THE TEST:
06              ;                   CHECK OPP I/O TIMING AFTER 16 NON UMC
07              ;                   CLOCKS RESET FORCE, AND 4 NON UMC.
08              ;
09              ; 11.51.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
10              ;                   **SAME AS 11.1.2
11              ;
12              ; 11.51.3        HINTS IF FAILURE OCCURS
13              ;                   SEE HINTS FOR TES20
14              ;
15              ;*****************************************************************
16              ;*****************************************************************
17              ; 11.52          TEST #                    NAME
18              ;                51                        TES49
19              ;
20              ; 11.52.1        OBJECTIVE OF THE TEST:
21              ;                   CHECK OPP I/O TIMING AFTER FORCE 16 NON
22              ;                   UMC CLOCKS RESET FORCE, 5 NON UMC CLOCKS.
23              ;
24              ; 11.52.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
25              ;                   **SAME AS 11.1.1.2
26              ;
27              ; 11.52.3        HINTS IF FAILURE OCCURS
28              ;                   SEE HINTS FOR TES22
29              ;*****************************************************************
30              ;*****************************************************************
31              ; 1153            TEST #                    NAME
32              ;                52                        TES50
33              ;
34              ; 11.53.1        OBJECTIVE OF THE TEST:
35              ;                   CHECKS CONTENDING I/O TIMING AFTER
36              ;                   1 CLOCK. TEST SEQ: FORCE (1.31.1.2)
37              ;                   1 CLOCK TO UMC, DEND (1.5.1.2)
38              ;
39              ; 11.53.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
40              ;                   **SAME AS 11.1.1.2
41              ;
42              ; 11.53.3        HINTS IF FAILURE OCCURS
43              ;                   SEE HINTS FOR TES2
44              ;
45              ;
46              ;*****************************************************************
47
48
```

```
10033 .MAIN
01              ;*************************************************************
02              ; 11.54         TEST #                  NAME
03              ;               53                      TES57
04              ;
05              ; 11.54.1       OBJECTIVE OF THE TEST:
06              ;                  CHECKS CONTENDING I/O AFTER 2 CLOCKS
07              ;                  TEST SEQ: FORCE 2 UMC CLOCKS, DEND
08              ;                  (11.5.1.2)   (11.31.1.2)
09              ;
10              ; 11.54.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
11              ;                  **SAME AS 11.1.1.2
12              ;
13              ; 11.54.3       HINTS IF FAILURE OCCURS
14              ; 11.54.3.1        CHECK BOTH RIO AND LIO SET SIDE OPPOSITE
15              ;                  PORT DIAG IS BEING RUN FROM WILL GET TO
16              ;                  DO I/O FIRST
17              ;*************************************************************
18              ;*************************************************************
19              ;
20              ; 11.55         TEST #                  NAME
21              ;               54                      TES52
22              ;
23              ; 11.55.1       OBJECTIVE OF THE TEST:
24              ;                  CHECKS CONTENDING I/O TIMING AFTER
25              ;                  3 UMC CLOCKS.
26              ;
27              ; 11.55.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
28              ;                  **SAME AS 11.1.1.2
29              ;
30              ; 11.55.3       HINTS IF FAILURE OCCURS
31              ; 11.55.3.1        SEE HINTS FOR TES51
32              ;
33              ;
34              ;*************************************************************
35              ;*************************************************************
36              ;
37              ; 11.56         TEST #                  NAME
38              ;               55                      TES53
39              ;
40              ; 11.56.1       OBJECTIVE OF THE TEST:
41              ;                  CHECKS CONTENDING I/O TIMING AFTER
42              ;                  4 UMC CLOCKS.
43              ;
44              ; 11.56.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
45              ;                  **SAME AS 11.1.1.2
46              ;
47              ; 11.56.3.1            HINTS IF FAILURE OCCURS
48              ; 11.56.3.1     CHECK FAILING SIGNAL - REFER TO 11.1.3.6
49              ;
50              ;
51              ;*************************************************************
52
53
```

```
10034 .MAIN
01
02
03              ;*************************************************************
04              ;
05              ; 11.57         TEST #                  NAME
06              ;               56                      TES54
07              ;
08              ; 11.57.1       OBJECTIVE OF THE TEST:
09              ;                  CHECK CONTENDING I/O TIMING AFTER
10              ;                  5 UMC CLOCKS.
11              ;
12              ; 11.57.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
13              ;                  **SAME AS 11.1.1.2
14              ;
15              ; 11.57.3       HINTS IF FAILURE OCCURS
16              ; 11.57.3.1        CHECK FAILING SIGNAL REFER TO 11.1.3.6
17              ;
18              ;
19              ;*************************************************************
20
21
22              ;*************************************************************
23              ;
24              ; 11.58         TEST #                  NAME
25              ;               57                      TES55
26              ;
27              ; 11.58.1       OBJECTIVE OF THE TEST:
28              ;                  CHECKS CONTENDING I/O TIMING AFTER
29              ;                  6 UMC CLOCKS.
30              ;
31              ; 11.58.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
32              ;                  **SAME AS 11.1.1.2
33              ;
34              ; 11.58.3       HINTS IF FAILURE OCCURS
35              ; 11.58.3.1        CHECK FAILING SIGNAL REFER TO 11.1.3.6
36              ;
37              ;
38              ;*************************************************************
39
40
41              ;*************************************************************
42              ;
43              ; 11.59         TEST #                  NAME
44              ;               58                      TES56
45              ;
46              ; 11.59.1       OBJECTIVE OF THE TEST:
47              ;                  CHECKS CONTENDING I/O TIMING AFTER
48              ;                  7 UMC CLOCKS.
49              ;
50              ; 11.59.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
51              ;                **SAME AS 11.1.1.2
52              ;
53              ; 11.59.3              HINTS IF FAILURE OCCURS
54              ;                  CHECK FAILING SIGNAL REFER TO 1.1.3.6
55              ;
56              ;
57              ;*************************************************************
58
59
```

```
!0035 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.60          TEST #                    NAME
06              ;                59                        TES57
07              ;
08              ; 11.60.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS CONTENDING I/O TIMING AFTER
10              ;                   8 UMC CLOCKS.
11              ;
12              ; 11.60.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
13              ;                   **SAME AS 11.1.1.2
14              ;
15              ; 11.60.3        HINTS IF FAILURE OCCURS
16              ; 11.60.3.1      CHECK FAILING SIGNAL REFER TO 1.1.3.6
17              ;
18              ;
19              ;*****************************************************************
20
```

```
!0036 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 1111           TEST #                    NAME
06              ;                60                        TES58
07              ;
08              ; 11.61.1        OBJECTIVE OF THE TEST:
09              ;                   CHECK CONTENDING I/O TIMING AFTER
10              ;                   9 UMC CLOCKS.
11              ;
12              ; 11.61.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
13              ;                   **SAME AS 11.1.1.2
14              ;
15              ; 11.61.3        HINTS IF FAILURE OCCURS
16              ; 11.61.3.1        CHECK FAILING SIGNAL REFER TO 1.1.3.6
17              ;
18              ;
19              ;*****************************************************************
20
21
22              ;*****************************************************************
23              ;
24              ; 11.62          TEST #                    NAME
25              ;                61                        TES59
26              ;
27              ; 11.62.1        OBJECTIVE OF THE TEST:
28              ;                   CHECKS CONTENDING I/O TIMING AFTER
29              ;                   10 UMC CLOCKS.
30              ;
31              ; 11.62.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
32              ;                   **SAME AS 11.1.1.2
33              ;
34              ; 11.62.3        HINTS IF FAILURE OCCURS
35              ; 11.62.3.1        CHECK FAILING SIGNAL REFER TO  11.1.3.6
36              ;
37              ;
38              ;*****************************************************************
39
```

```
10037 .MAIN
01
02
03              ;*************************************************************
04              ;
05              ; 11.63         TEST #                  NAME
06              ;               62                      TES60
07              ;
08              ; 11.63.1       OBJECTIVE OF THE TEST:
09              ;                  CHECKS CONTENDING I/O TIMING AFTER 11
10              ;                  UMC CLOCKS.
11              ;
12              ; 11.63.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
13              ;                  **SAME AS 11.1.1.2
14              ;
15              ; 11.63.3       HINTS IF FAILURE OCCURS
16              ;                  CHECK FAILING SIGNAL REFER TO 11.1.3.6
17              ;
18              ;
19              ;*************************************************************
20
21
22              ;*************************************************************
23              ;
24              ; 11.64         TEST #                  NAME
25              ;               63                      TES61
26              ;
27              ; 11.64.1       OBJECTIVE OF THE TEST:
28              ;                  CHECK CONTENDING I/O TIMING AFTER 12
29              ;                  UMC CLOCKS.
30              ;
31              ; 11.64.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
32              ;                  **SAME AS 11.1.1.2
33              ;
34              ; 11.64.3       HINTS IF FAILURE OCCURS
35              ; 11.64.3.1        CHECK FAILING SIGNAL REFER TO 11.1.3.6
36              ;
37              ;
38              ;*************************************************************
39
40
41              ;*************************************************************
42              ;
43              ; 11.65         TEST #                  NAME
44              ;               64                      TES62
45              ;
46              ; 11.65.1       OBJECTIVE OF THE TEST:
47              ;               CHECK CONTENDING I/O TIMING AFTER 13
48              ;                UMC CLOCKS.
49              ;
50              ; 11.65.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
51              ;                  **SAME AS 11.1.1.2
52              ;
53              ; 11.65.3       HINTS IF FAILURE OCCURS
54              ; 11.65.3.1        CHECK FAILING SIGNAL REFER TO 11.1.3.6
55              ;
56              ;*************************************************************
57
```

```
10038 .MAIN
01
02
03
04              ;*************************************************************
05              ;
06              ; 11.66         TEST #                  NAME
07              ;               65                      TES63
08              ;
09              ; 11.66.1       OBJECTIVE OF THE TEST:
10              ;               CHECK CONTENDING I/O AFTER 14
11              ;               UMC CLOCKS
12              ;
13              ; 11.66.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
14              ;                  **SAME AS 11.1.1.2
15              ;
16              ; 11.66.3       HINTS IF FAILURE OCCURS
17              ; 11.66.3.1        CHECK FAILING SIGNAL REFER TO 11.1.3.6
18              ;
19              ;
20              ;*************************************************************
21
22
23              ;*************************************************************
24              ;
25              ; 11.67         TEST #                  NAME
26              ;               66                      TES64
27              ;
28              ; 11.67.1       OBJECTIVE OF THE TEST:
29              ;               CHECK CONTENDING I/O AFTER 15
30              ;               UMC CLOCKS.
31              ;
32              ; 11.67.2       CONTENT OF DCU ACCS WHEN FAILURE OCCURS
33              ;                  **SAME AS 11.1.1.2
34              ;
35              ; 11.67.3       HINTS IF FAILURE OCCURS
36              ; 11.67.3.1        CHECK FAILING SIGNAL REFER TO 11.1.3.6
37              ;
38              ;
39              ;*************************************************************
40
41
42              ;*************************************************************
43              ;
44              ; 11.68         TEST #                  NAME
45              ;               67                      TES65
46              ;
47              ; 11.68.1       OBJECTIVE OF THE TEST:
48              ;                  CHECKS CONTENDING I/O TIMING AFTER
49              ;                  16 UMC CLOCKS.
50              ;
51              ; 11.68.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
52              ;                  **SAME AS 11.1.1.2
53              ;
54              ; 11.68.3       HINTS IF FAILURE OCCURS
55              ;               CHECK FAILING SIGNAL REFER TO 11.1.3.6
56              ;
57              ;
58              ;*************************************************************
59
60
```

```
0039 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.69          TEST #                    NAME
06              ;
07              ;                69                        TES66
08              ;
09              ; 11.69.1        OBJECTIVE OF THE TEST:
10              ;                   CHECKS CONTENDING I/O TIMING AFTER
11              ;                   17 UMC CLOCKS.
12              ;
13              ; 11.69.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
14              ;                   **SAME AS 11.1.1.2
15              ;
16              ; 11.69.3        HINTS IF FAILURE OCCURS
17              ; 11.69.3.1         CHECK FAILING SIGNAL REFER TO 11.1.3.6
18              ;
19              ;
20              ;*****************************************************************
21
22
23              ;*****************************************************************
24              ;
25              ; 11.70          TEST #                    NAME
26              ;                69                        TES67
27              ;
28              ; 11.70.1        OBJECTIVE OF THE TEST:
29              ;                   CHECKS CONTENDING I/O TIMING AFTER
30              ;                   17 UMC CLOCKS FORCE OFF 1 UMC CLOCK.
31              ;
32              ; 11.70.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
33              ;                   **SAME AS 11.1.1.2
34              ;
35              ; 11.70.3        HINTS IF FAILURE OCCURS
36              ;                   CHECK FAILING SIGNAL REFER TO 11.1.3.6
37              ;
38              ;
39              ;*****************************************************************
40
41
42              ;*****************************************************************
43              ;
44              ; 11.71          TEST #                    NAME
45              ;                70                        TES68
46              ;
47              ; 11.71.1        OBJECTIVE OF THE TEST:
48              ;                   CHECKS CONTENDING I/O TIMING AFTER
49              ;                   17 UMC CLOCKS FORCE OFF, AND 2 UMC CLOCKS.
50              ;
51              ; 11.71.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
52              ;                   **SAME AS 11.1.1.2
53              ;
54              ; 11.71.3        HINTS IF FAILURE OCCURS
55              ;                   CHECK FAILING SIGNAL REFER TO 11.1.3.6
56              ;
57              ;
58              ;*****************************************************************
59
60
```

```
0040 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.72          TEST #                    NAME
06              ;                71                        TES69
07              ;
08              ; 11.72.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS CONTENDING I/O TIMING AFTER 17
10              ;                   UMC CLOCKS FORCE OFF, AND 3 UMC CLOCKS.
11              ;                   THIS IS THE LAST I/O CONTENTION TEST.
12              ;
13              ; 11.72.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
14              ;                   **SAME AS 11.1.1.2
15              ;
16              ; 11.72.3        HINTS IF FAILURE OCCURS
17              ; 11.72.3.1         CHECK FAILING SIGNAL REFER TO 11.1.3.6
18              ;
19              ;
20              ;*****************************************************************
21
22
23              ;*****************************************************************
24              ;
25              ; 11.73          TEST #                    NAME
26              ;                72                        P2T1
27              ;
28              ; 11.73.1        OBJECTIVE OF THE TEST:
29              ;                   CHECKS THAT DIAGNOSTIC MUXS LOAD THE BIT
30              ;                   0 FLOP WITH ZERO AFTER DOING THE FOLLOWING
31              ;                   SEQ PH2ST, DOB 0,DIAG, DIB 1,DIAG, CHECK FOR
32              ;                   HIGH BIT ON.
33              ;
34              ; 11.73.1.1          PH2ST = DSTR (11.1.1.2) FOLLOWED BY 7 CLOCKS
35              ;                   TO UMC
36              ;
37              ; 11.73.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
38              ;                   AC0 = NA
39              ;                   AC1 = CONTENTS OF DIB
40              ;                   AC2 = POINTER TO SELECT # IN NUMTAB
41              ;                   AC3 = ADDRESS OF "HOFF": ROUTINE +2
42              ;
43              ; 11.73.3        HINTS IF FAILURE OCCURS
44              ; 11.73.3.1       CHECK *DOB SIGNAL TO BIT 0 FLOP
45              ; 11.73.3.2       CHECK FOR 0 SELECT TO BIT 0 UPPER MUX
46              ; 11.73.3.3       CHECK FOR *DIB TO BIT 0 AND GATES
47              ; 11.73.3.4       CHECK COMMAND DATA SIGNAL TO DIAG HEX FLOP.
48              ;
49              ;*****************************************************************
50              ;               * INDICATES INVERTED SIGNAL
51
```

```
10041 .MAIN
01              ;*****************************************************************
02              ;
03              ; 11.74          TEST #                    NAME
04              ;                73                        P2T2
05              ;
06              ; 11.74.1        OBJECTIVE OF THE TEST:
07              ;                   CHECKS THAT DIAG MUXS LOAD THE
08              ;                   BIT 15 FLOP WITH A ZERO AFTER
09              ;                   DOING THE FOLLOWING SEQ.
10              ;                   PH2ST (11.73.1.2) FOLLOWED BY
11              ;                   SELECT 0, AND A CHECK FOR HIGH BITOFF.
12              ;
13              ; 11.74.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
14              ;                   AC1 = CONTENTS OF DIB
15              ;                   AC2 = POINTER TO SELECT # IN NUMTAB
16              ;                   AC3 = ADDRESS OF LOFF +2
17              ;
18              ; 11.74.3        HINTS IF FAILURE OCCURS
19              ; 11.74.3.1        CHECK FOR *DOB SIGNAL TO BIT 15 FLOP
20              ; 11.74.3.2        CHECK FOR 0 SELECT TO BIT 15 UPPER MUX
21              ; 11.74.3.3        CHECK FOR *DIB TO BIT 15 AND GATES
22              ; 11.74.3.4        CHECK COMMON DATA SIGNALS TO DIAG HEX
23              ;                   FLOP
24              ;
25              ;
26              ;*****************************************************************
27              ;*****************************************************************
28              ;
29              ; 11.75          TEST #                    NAME
30              ;                74                        P2T3
31              ;
32              ; 11.75.1        OBJECTIVE OF THE TEST:
33              ;                   CHECKS THAT AND I/O START PULSE CAN BE
34              ;                   PROPOGATED TO THE COMMON BUSS FROM THE
35              ;                   PORT THAT THE DIAGNOSTIC IS BEING RUN
36              ;                   FROM.
37              ;                   TEST SEQ: PH2ST (11.73.1.2) SELECT 7
38              ;                   NIOS UMC, DIB 1,DIAG CHECK FOR HIGH ON.
39              ;
40              ; 11.75.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
41              ;                   AC1 = RESULTS OF DIB
42              ;                   AC2 = POINTER TO SELECT # IN NUMTAB
43              ;                   AC3 = ADDRESS OF HON+2
44              ;
45              ; 11.75.3        HINTS IF FAILURE OCCURS
46              ; 11.75.3.1        CHECK SELECT 7 IS ON TO UPPER DIAG BIT0 MUX
47              ; 11.75.3.2        CHECK CSTRT TO DIAG MUX
48              ; 11.75.3.3        CHECK LSTRT OR RSTRT TO BUSS SWITCH MUX
49              ; 11.75.3.4        CHECK *RSEL TO BUSS SWITCH MUX
50              ; 11.75.3.5        CHECK XEN TO BUSS SWITCH AND GATES.
51              ;
52              ;
53              ;*****************************************************************
54              ;                * INDICATES INVERTED SIGNAL
55
```

```
10042 .MAIN
01              ;*****************************************************************
02              ; 11.76          TEST #                    NAME
03              ;                75                        P2T4
04              ;
05              ; 11.76.1        OBJECTIVE OF THE TEST:
06              ;                   CHECKS THAT I/O START IS NOT SHORTED
07              ;                   TO OTHER I/O SIGNALS OR TO A DSBIT.
08              ;                   TEST SEQ: PH2ST (11.73.1.2) FOLLOWED
09              ;                   BY SELECT 7 TO DIAG MUXS FOLLOWED BY
10              ;                   THE FOLLOWING COMMANDS. COMMAND 1 ON,
11              ;                   FROM COMMAND TABLE (COMTAB) IF NO COM-
12              ;                   MAND SETS 0 AFTER A DIB THAN THE PROG-
13              ;                   RAM GOES TO A GOOD END.
14              ;
15              ; 11.76.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                   AC0 = SELECT # SNET OUT WITH DOB
17              ;                   AC1 = RESULT OF DIB
18              ;                   AC2 = COMMAND THAT CAUSED FAILURE
19              ;                   AC3 = ADDRESS OF WREN+1
20              ;
21              ; 11.76.3        HINTS IF FAILURE OCCURS
22              ; 11.76.3.1        CHECKS FOR A SHORT BETWEEN FAILING SIGNAL
23              ;                   AND SIGNAL BEING TESTED.
24              ;*****************************************************************
25              ;*****************************************************************
26              ; 11.77          TEST #                    NAME
27              ;                76                        P2T5
28              ;
29              ; 11.77.1        OBJECTIVE OF THE TEST:
30              ;                   CHECKS THAT A I/O RESET PULSE WILL
31              ;                   PROPOGATE TO COMMON SIDE OF BUSS
32              ;                   FROM PORT BEING TESTED.
33              ;                   TEST SEQ IS: PH2ST (11.73.1.2)
34              ;                   SELECT 6 (DOB** 6 DIAG)
35              ;
36              ;                   IORST, DIB 1,DIAG, FOLLOWED BY CHECK
37              ;                   FOR HIGH (0) BIT DIAG FLOP SET.
38              ;
39              ; 11.77.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
40              ;                   AC0 = NA
41              ;                   AC1 = RESULT OF DIB
42              ;                   AC2 = POINTER TO SELECT NUMBER IN NUMTAB
43              ;                   AC3 = ADDRESS OF HON+2
44              ;
45              ; 11.77.3        HINTS IF FAILURE OCCURS
46              ; 11.77.3.1        CHECK LIORST OR RIORST THRU BUSS SWITCH
47              ;                   MUX.
48              ; 11.77.3.2        CHECK *RSEL TO BUSS SWITCH MUX
49              ; 11.77.3.3        CHECK XEN TO BUSS SWITCH AND GATES
50              ; 11.77.3.4        CHECK CIORST TO DIAG MUX UPPER BIT 0.
51              ; 11.77.3.4        CHECK SELECT 6 TO DIAG MUX
52              ;
53              ;*****************************************************************
54              ;                * INDICATES INVERTED SIGNAL
55              ;                ** INDICATES CONTENTS NOT AC#
56
```

```
10043 .MAIN
01
02
03
04              ;*****************************************************************
05              ;
06              ; 11.78          TEST #                    NAME
07              ;                77                        P2T6
08              ;
09              ; 11.78.1        OBJECTIVE OF THE TEST:
10              ;                   CHECKS THAT IOREST IS NOT SHORTED TO
11              ;                   ANY OTHER COMMANDS OR D.S BITS TEST
12              ;                   SEQ IS: PH2ST (11.73.1.2) FOLLOWED
13              ;                   BY, DOB** 6,DIAG FOLLOWED BY COMMAND 2
14              ;                   ON FROM COMMAND TABLE 1 AT A TIME.
15              ;
16              ; 11.78.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                   **SAME AS 11.76.2
18              ;
19              ; 11.78.3        HINTS IF FAILURE OCCURS
20              ; 11.78.3.1         CHECK FOR A SHORT IN PATHS BETWEEN
21              ;                   SIGNAL BEING TESTED AND BAD SIGNAL.
22              ;
23              ;
24              ;*****************************************************************
25
26
27              ;*****************************************************************
28              ;
29              ; 11.79          TEST #                    NAME
30              ;                78                        P2T7
31              ;
32              ; 11.79.1        OBJECTIVE OF THE TEST:
33              ;                   CHECKS THAT DIC SIGNAL WILL PROPOGATE
34              ;                   THRU TO COMMON SIDE OF BUSS SWITCH FROM
35              ;                   PORT BEING TESTED. TEST SEQ IS: PH2ST
36              ;                   (11.73.1.2), SELECT 5 (DOB** 5,DIAG);
37              ;                   DIB 1,DIAG; CHECK FOR HIGH ON.
38              ;
39              ; 11.79.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
40              ;                   **SAME AS 11.77.2
41              ;
42              ; 11.79.3        HINTS IF FAILURE OCCURS
43              ; 11.79.3.1        CHECK LDATIC OR RDATIC THRU BUSS SWITCH MUX
44              ; 11.79.3.2        CHECK *RSEL TO BUSS SWITCH MUX
45              ; 11.79.3.3        CHECK XEN TU BUSS SWITCH AND GATES
46              ; 11.79.3.4        CHECK SELECT 5 TO DIAG MUX FOR BIT 0 UPPER
47              ;
48              ;
49              ;*****************************************************************
50              ;               * INDICATES INVERTED SIGNAL
51              ;               ** INDICATES CONTENTS NOT AC#
52
53
```

```
10044 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.80          TEST #                    NAME
06              ;                79                        P2T8
07              ;
08              ; 11.80.1        OBJECTIVE OF THE TEST:
09              ;                   CHECK THAT DIC IS NOT SHORTED TO ANY OTHER
10              ;                   I/O COMMAND OR DS BIT.
11              ;                   TEST SEQ IS: PH2ST (11.73.1.2) SELECT 5
12              ;                   (DOB **5,DIAG), FOLLOWED BY COMMAND 3 ON
13              ;                   FROM COMMAND TABLE.
14              ;
15              ; 11.80.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                   **SAME AS 11.76.2
17              ;
18              ; 11.80.3        HINTS IF FAILURE OCCURS
19              ; 11.80.3.1         CHECK FOR A SHORT BETWEEN SIGNAL BEING
20              ;                   TESTED AND FAILING SIGNAL.
21              ;
22              ;
23              ;*****************************************************************
24
25
26              ;*****************************************************************
27              ;
28              ; 11.81          TEST #                    NAME
29              ;                80                        P2T9
30              ;
31              ; 11.81.1        OBJECTIVE OF THE TEST:
32              ;                   CHECKS THAT DIB SIGNAL IS PROPOGATED
33              ;                   THRU BUSS SWITCH TU COMMON SIDE OF
34              ;                   BUSS FROM PORT BEING TESTED. TEST
35              ;                   SEQ IS: PH2ST (11.73.1.2), SELECT 4
36              ;                   (DOB **3,DIAG); DIB 1,DIAG;CHECK FOR HIGH
37              ;                   BIT ON DIB X,MUX
38              ;
39              ; 11.81.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
40              ;                   **SAME AS 11.77.2
41              ;
42              ; 11.81.3        HINTS IF FAILURE OCCURS
43              ; 11.81.3.1         CHECK RDATIB OR LDATIB THRU BUSS SWITCH MUX
44              ; 11.81.3.2         CHECK *RSEL TO BUSS SWITCH
45              ; 11.81.3.3         CHECK XEN TO BUSS SWITCH
46              ; 11.81.3.4         CHECK SELECT 4 TO DIAGNOSTIC BIT 0 UPPER MUX
47              ;
48              ;
49              ;*****************************************************************
50              ;
51              ;               * INDICATES INVERTED SIGNAL
52              ;               ** INDICATES CONTENTS NOT AC#
53
```

```
10045 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.82          TEST #                    NAME
06              ;                81                        P2T11
07              ;
08              ; 11.82.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS THAT A DIA SIGNAL IS PROPOGATED
10              ;                   THRU BUSS SWITCH TO COMMON SIDE FROM
11              ;                   PORT BEING TESTED. TEST SEQ IS: PH2ST
12              ;                   (11.73.1.2); SELECT 3 (DOB **3,DIAG);
13              ;                   DIB 1,DIAG; CHECK FOR HIGH BIT ON.
14              ;
15              ; 11.82.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                   **SAME AS 11.77.6
17              ;
18              ; 11.82.3        HINTS IF FAILURE OCCURS
19              ; 11.82.3.1         CHECK LDATIA OR RDATIA THRU BUSS SWITCH
20              ;                   MUX
21              ; 11.82.3.2         CHECK *RSEL TO BUSS SWITCH MUX
22              ; 11.82.3.3         CHECK XEN TO BUSS SWITCH AND GATES
23              ; 11.82.3.4         CHECK SELECT 3 TO DIAG MUX BIT 0 UPPER
24              ;
25              ;
26              ;*****************************************************************
27
28
29              ;*****************************************************************
30              ;
31              ;
32              ; 11.83          TEST #                    NAME
33              ;                82                        P2T12
34              ;
35              ; 11.83.1        OBJECTIVE OF THE TEST:
36              ;                   CHECKS THAT DIA IS NOT SHORTED TO ANY
37              ;                   OTHER I/O SIGNAL OR DS BIT. TEST SEQ IS:
38              ;                   PH2ST (11.73.1.2);SELECT 3 (DOB **3,DIAG);
39              ;                   FOLLOWED BY COMMAND 5 ON FROM COMMAND
40              ;                   TABLE, AND CHECK FOR HIGH BIT OFF.
41              ;
42              ; 11.83.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
43              ;                   **SAME AS 11.76.2
44              ;
45              ; 11.83.3        HINTS IF FAILURE OCCURS
46              ; 11.83.3.1         CHECK FOR A SHORT FROM SIGNAL BEING
47              ;                   TESTED TO BAD SIGNAL.
48              ;
49              ;
50              ;*****************************************************************
51              ;               * INDICATES INVERTED SIGNAL
52              ;               ** INDICATES CONTENTS NOT AC#
53
```

```
10046 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.84          TEST #                    NAME
06              ;                83                        P2T13
07              ;
08              ; 11.84.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS THAT A DOC SIGNAL IS PROPOGATED
10              ;                   THRU BUSS SWITCH TO COMMON BUSS FROM
11              ;                   PORT BEING TESTED. TEST SEQ IS: PH2ST
12              ;                   (11.73.1.2); SELECT 2 (DOB **2,DIAG);
13              ;                   DIB 1,DIAG; CHECK FOR BIT 0 FLOP
14              ;                   SET.
15              ;
16              ; 11.84.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                   **SAME AS 11.77.2
18              ;
19              ; 11.84.3        HINTS IF FAILURE OCCURS
20              ; 11.84.3.1         CHECK LDATOC OR RDATOC THRU BUSS SWITCH
21              ;                   MUX
22              ; 11.84.3.2         CHECK *RSEL TO BUSS SWITCH MUX
23              ; 11.84.3.3         CHECK XEN TO BUSS SWITCH MUX
24              ; 11.84.3.4         CHECK CDATOC TO DIAG MUX
25              ; 11.84.3.5         CHECK SELECT 2 IS ON TO BIT 0  DIAG
26              ;                   MUX UPPER.
27              ;
28              ;
29              ;*****************************************************************
30
31
32              ;*****************************************************************
33              ;
34              ; 11.85          TEST #                    NAME
35              ;                84                        P2T14
36              ;
37              ; 11.85.1        OBJECTIVE OF THE TEST:
38              ;                   CHECKS THAT DOC IS NOT SHORTED TO ANY
39              ;                   OTHER I/O SIGNAL OR ANY D.S. BIT.
40              ;                   TEST SEQ IS: PH2ST (11.73.1.2); SELECT
41              ;                   2 (DOB **2,DIAG); FOLLOWED BY COMMAND 6 ON
42              ;                   FROM COMMAND TABLE, CHECK FOR HIGH BIT
43              ;                  OFF.
44              ;
45              ; 11.85.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
46              ;                   **SAME AS 11.76.2
47              ;
48              ; 11.85.3        HINTS IF FAILURE OCCURS
49              ; 11.85.3.1         CHECK FOR A SHORT FROM SIGNAL BEING TESTED
50              ;                   TO BAD SIGNAL.
51              ;
52              ;
53              ;*****************************************************************
54              ;               * INDICATES INVERTED SIGNAL
55              ;               ** INDICATES CONTENTS NOT AC#
```

```
10047 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.86          TEST #                    NAME
06              ;                85                        P2T15
07              ;
08              ; 11.86.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS THAT A DOB SIGNAL IS PROPOGATED
10              ;                   THRU BUSS SWITCH TO COMMON SIDE FROM
11              ;                   PORT BEING TESTED. TEST SEQ IS:
12              ;                   PH2ST (11.73.1.2); SELECT 1 (DOB **1,
13              ;                   DIAG); DIB 0,DIAG, CHECK FOR BIT
14              ;                   0 FLOP SET.
15              ;
16              ; 11.86.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                   **SAME AS 11.77.2
18              ;
19              ; 11.86.3        HINTS IF FAILURE OCCURS
20              ; 11.86.3.1         CHECK RDATOB OR LDATOB THRU BUSS SWITCH MUX
21              ; 11.86.3.2         CHECK *RSEL TO BUSS SWITCH MUX
22              ; 11.86.3.3         CHECK XEN TO BUSS SWITCH AND GATES
23              ; 11.86.3.4         CHECK CDATOB TO DIAG MUX BIT 0 UPPER
24              ; 11.86.3.5         CHECK SELECT 1 TO DIAG MUX BIT 0 UPPER
25              ;
26              ;
27              ;*****************************************************************
28
29
30              ;*****************************************************************
31              ;
32              ; 11.87          TEST #                    NAME
33              ;                86                        P2T16
34              ;
35              ; 11.87.1        OBJECTIVE OF THE TEST:
36              ;                   CHECKS THAT DOB IS NOT SHORTED TO ANY
37              ;                   OTHER  I/O SIGNAL OR D.S. BIT. TEST
38              ;                   SEQ IS: PH2ST (11.73.1.2), SELECT 1
39              ;                   (DOB **1,DIAG), FOLLOWED BY COMMAND
40              ;                   7 ON FROM COMMAND TABLE, CHECK FOR
41              ;                   HIGH BIT OFF.
42              ;
43              ; 11.87.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
44              ;                   **SAME AS 11.76.2
45              ;
46              ; 11.87.3        HINTS IF FAILURE OCCURS
47              ; 11.87.3.1         CHECK FOR A SHORT BETWEEN SIGNAL
48              ;                   BEING TESTED AND BAD SIGNAL.
49              ;
50              ;
51              ;*****************************************************************
52              ;               * INDICATES INVERTED SIGNAL
53              ;               ** INDICATES CONTENTS NOT AC#
54
55
```

```
10048 .MAIN
01
02              ;*****************************************************************
03              ;
04              ; 11.88          TEST #                    NAME
05              ;                87                        P2T17
06              ;
07              ; 11.88.1        OBJECTIVE OF THE TEST:
08              ;                   CHECKS THAT A DOA SIGNAL IS PROPOGATED
09              ;                   THRU BUSS SWITCH TO COMMON SIDE FROM
10              ;                   PORT BEING TESTED. TEST SEQ IS:
11              ;                   PH2ST (11.73.1.2); SELECT 0,(DOB **0,DIAG);
12              ;                   DIB 1,MUX; CHECK FOR BIT 0 DIAG FLOP SET.
13              ;
14              ; 11.88.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                   **SAME AS 11.77.2
16              ;
17              ; 11.88.3        HINTS IF FAILURE OCCURS
18              ; 11.88.3.1         CHECK LDATOA OR RDATOA THRU BUSS SWITCH
19              ;                   MUX
20              ; 11.88.3.2         CHECK *RSEL TO BUSS SWITCH MUX
21              ; 11.88.3.3         CHECK XEN TO BUSS SWITCH AND GATES
22              ; 11.88.3.4         CHECK C DATOA TO DIAG BIT 0 MUX UPPER
23              ; 11.88.3.5         CHECK SELECT 0 TO DIAG BIT 0 MUX UPPER
24              ;
25              ;
26              ;*****************************************************************
27
28
29              ;*****************************************************************
30              ;
31              ; 11.89          TEST #                    NAME
32              ;                88                        P2T18
33              ;
34              ; 11.89.1        OBJECTIVE OF THE TEST:
35              ;                   CHECKS THAT DOA SIGNAL IS NOT SHORTED
36              ;                   TO ANY OTHER I/O SIGNAL OR ANY D.S.
37              ;                   BIT. TEST SEQ IS: PH2ST (11.73.1.2);
38              ;                   SELECT 0 (DOB**0,DIAG); FOLLOWED BY
39              ;                   COMMAND 8 ON FROM COMMAND TABLE
40              ;                   FOLLOWED BY CHECK FOR HIGH BIT OFF.
41              ;
42              ; 11.89.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
43              ;   -               **SAME AS 11.76.2
44              ;
45              ; 11.89.3        HINTS IF FAILURE OCCURS
46              ; 11.89.3.1         CHECK FOR SHORT BETWEEN SIGNAL BEING
47              ;                   TESTED AND BAD SIGNAL.
48              ;
49              ;
50              ;*****************************************************************
51
52
```

```
10049 .MAIN
01              ;*****************************************************************
02              ; 11.90          TEST #                    NAME
03              ;                89                        P2T19
04              ;
05              ; 11.90.1        OBJECTIVE OF THE TEST:
06              ;                   CHECKS THAT I/O PULSE CAN BE PROPOGATED
07              ;                   THRU BUSS SWITCH TO COMMON SIDE FROM
08              ;                   PORT BEING TESTED. TEST SEQ IS:
09              ;                   PH2ST (11.73.1.2); SELECT 11
10              ;                   (DOB**11,DIAG); DIB 1,DIAG; CHECK FOR
11              ;                   BIT 0 FLOP SET.
12              ;
13              ; 11.90.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
14              ;                   **SAME AS 11.77.2
15              ;
16              ; 11.90.3        HINTS IF FAILURE OCCURS
17              ; 11.90.3.1         CHECK LIOPLS OR RIOPLS THRU BUSS SWITCH
18              ;                   MUX
19              ; 11.90.3.2         CHECK *RSEL TO BUSS SWITCH MUX
20              ; 11.90.3.3         CHECK XEN TO BUSS SWITCH AND GATES
21              ; 11.90.3.4         CHECK CIOPLS TO DIAG MUX BIT 0 LOWER
22              ; 11.90.3.5         CHECK SELECT 1 TO BIT 0 LOWER MUX
23              ;*****************************************************************
24              ;*****************************************************************
25              ; 11.91          TEST #                    NAME
26              ;                90                        P2T21
27              ;
28              ; 11.91.1        OBJECTIVE OF THE TEST:
29              ;                   CHECKS THAT I/O CLEAR SIGNAL CAN
30              ;                   BE PROPOGATED THRU BUSS SWITCH
31              ;                   TO COMMON SIDE FROM PORT BEING
32              ;                   TESTED TEST SEQ IS: PH2ST
33              ;                   (11.73.1.2), SELECT 10 (DOB
34              ;                   **10,DIAG) DIB 1,DIAG, CHECK
35              ;                   FOR BIT 0 FLOP SET.
36              ;
37              ; 11.91.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
38              ;                   **SAME AS 11.77.2
39              ;
40              ; 11.91.3        HINTS IF FAILURE OCCURS
41              ; 11.91.3.1         CHECK LCLR OR RCLR THRU BUSS SWITCH MUX
42              ; 11.91.3.2         CHECK *RSEL TO BUSS SWITCH MUX
43              ; 11.91.3.3         CHECK XEN TO BUSS SWITCH AND GATES
44              ; 11.91.3.4         CHECK CCLR TO DIAG MUX BIT 0 LOWER
45              ; 11.91.3.5         CHECK SELECT 0 TO DIAG MUX BIT 0 LOWER
46              ;
47              ;
48              ;*****************************************************************
49              ;                * INDICATES INVERTED SIGNAL
50              ;                ** INDICATES CONTENTS NOT AC#
51
52
```

```
10050 .MAIN
01
02              ;*****************************************************************
03              ;
04              ; 11.92          TEST #                    NAME
05              ;                91                        P2T22
06              ;
07              ; 11.92.1        OBJECTIVE OF THE TEST:
08              ;                   CHECK THAT I/O CLR IS NOT SHORTED TO
09              ;                   ANY OTHER I/O SIGNALS OR ANY D.S. BIT
10              ;                   TEST SEQ IS: PH2ST (11.73.1.2); SELECT
11              ;                   10 (DOB**10,DIAG); FOLLOWED BY COMMANDS
12              ;                   10 ON FROM COMMAND TABLE; CHECK FOR
13              ;                   HIGH BIT OFF.
14              ;
15              ; 11.92.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                   **SAME AS 11.76.2
17              ;
18              ; 11.92.3        HINTS IF FAILURE OCCURS
19              ; 11.92.3.1         CHECK FOR SHORT BETWEEN SIGNAL
20              ;                   BEING TESTED AND BAD SIGNAL.
21              ;
22              ;
23              ;*****************************************************************
24
25
26              ;*****************************************************************
27              ;
28              ; 11.93          TEST #                    NAME
29              ;                92                        P2T23
30              ;
31              ; 11.93.1        OBJECTIVE OF THE TEST:
32              ;                   CHECK THAT DSO BIT CAN BE PROPOGATED
33              ;                   THRU BUSS SWITCH TO COMMON SIDE FROM
34              ;                   PORT BEING TESTED. TEST SEQ IS: PH2ST
35              ;                   (11.73.1.2), SELECT 0 (DOB**0,DIAG)
36              ;                   NIOP 40,D DIB 1,DIAG, CHECK FOR BIT
37              ;                   15 DIAG FLOP SET.
38              ;
39              ; 11.93.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
40              ;                   AC1 = RESULT OF DIB
41              ;                   AC2 = POINTER TO SELECT # IN NUMBTAB
42              ;                   AC3 = ADDRESS OF LON+2
43              ;
44              ; 11.93.3        HINTS IF FAILURE OCCURS
45              ; 11.93.3.1         CHECK RDSO OR LDSO THRU BUSS SWITCH MUX
46              ; 11.93.3.2         CHECK *RSEL BUSS SWITCH MUX
47              ; 11.93.3.3         CHECK XEN TO BUSS SWITCH AND GATES
48              ; 11.93.3.4         CHECK CDSO TO DIAG MUX BIT 15 UPPER
49              ; 11.93.3.5         CHECK SELECT 0 ON TO MUX BIT 15 LOWER
50              ;
51              ;
52              ;*****************************************************************
53              ;                * INDICATES INVERTED SIGNAL
54              ;                ** INDICATES CONTENTS NOT AC#
55
```

```
10051 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.94          TEST #                    NAME
06              ;                93                        P2T24
07              ;
08              ; 11.94.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS THAT DS BIT 0 IS NOT SHORTED TO
10              ;                   ANY I/O SIGNAL OR OTHER DS BIT. TEST
11              ;                   SEQ IS: PH2ST (11.73.1.2); SELECT 0
12              ;                   (DOB**0,DIAG); FOLLOW BY COMMAND 11 ON
13              ;                   FROM COMMAND TABLE; FOLLOWED BY DIB
14              ;                   1,DIAG CHECK FOR LOW BIT (BIT IS) OFF
15              ;
16              ; 11.94.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                   AC0 = SELECT # TO MUX
18              ;                   AC1 = RESULT  OF DIB
19              ;                   AC2 = BAD COMMAND
20              ;                   AC3 = ADDR OF WREN ROURE+1
21              ;
22              ; 11.94.3        HINTS IF FAILURE OCCURS
23              ; 11.94.3.1        CHECK FOR A SHORT FROM SIGNAL BEING
24              ;                   TESTED TO BAD SIGNAL.
25              ;
26              ;
27              ;*****************************************************************
28
29
30              ;*****************************************************************
31              ;
32              ; 11.95          TEST #                    NAME
33              ;                94                        P2T25
34              ;
35              ; 11.95.1        OBJECTIVE OF THE TEST:
36              ;                   CHECK THAT DS BIT 1 IS PROPOGATED THRU
37              ;                   BUSS SWITCH TO COMMON SIDE FROM PORT
38              ;                   BEING TESTED. TEST SEQ IS: PH2ST
39              ;                   (11.73.1.2); SELECT 1 (DOB**1,DIAG);
40              ;                   NIOP 20;DIB 1,DIAG; CHECK FOR LOW
41              ;                   BIT ON.
42              ;
43              ; 11.95.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
44              ;                   **SAME AS 11.77.2
45              ;
46              ; 11.95.3        HINTS IF FAILURE OCCURS
47              ; 11.95.3.1        CHECK RDS1 OR LDS1 THRU BUSS SWITCH MUX
48              ; 11.95.3.2        CHECK *RSEL TO BUSS SWITCH MUX
49              ; 11.95.3.3        CHECK XEN TO BUSS SWITCH AND GATES
50              ; 11.95.3.4        CHECK *CDS1 TO DIAG MUX BIT 15 UPPER
51              ; 11.95.3.5        CHECK SELECT 1 TO DIAG MUX BIT IS UPPER
52              ;
53              ;
54              ;*****************************************************************
55              ;               * INDICATES INVERTED SIGNAL
56              ;               ** INDICATES CONTENTS NOT AC#
57
58
```

```
10052 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.96          TEST #                    NAME
06              ;                95                        P2T26
07              ;
08              ; 11.96.1        OBJECTIVE OF THE TEST:
09              ;                   CHECKS THAT D.S. BIT 1 IS NOT SHORTED
10              ;                   TO ANY I/O SIGNAL OR ANY D.S. BIT.
11              ;                   TEST SEQ IS: PH2ST (11.73.1.2);
12              ;                   SELECT 1 (DOB**1,DIAG); FOLLOWED BY
13              ;                   COMMAND TABLE, AND THEN DIB1,DIAG;
14              ;                   CHECK FOR LOW BIT OFF.
15              ;
16              ; 11.96.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                   **SAME 11.76.2
18              ;
19              ; 11.96.3        HINTS IF FAILURE OCCURS
20              ; 11.96.3.1        CHECK FOR A SHORT BETWEEN SIGNAL BEING
21              ;                   TESTED AND BAD SIGNAL.
22              ;
23              ;
24              ;*****************************************************************
25
26
27              ;*****************************************************************
28              ;
29              ; 11.97          TEST #                    NAME
30              ;                96                        P2T27
31              ;
32              ; 11.97.1        OBJECTIVE OF THE TEST:
33              ;                   CHECKS THAT DS BIT 2 IS PROPOGATED THRU
34              ;                   BUSS SWITCH TO COMMON SIDE FROM PORT
35              ;                   BEING TESTED. TEST SEQ IS: PH2ST(11.73.1.2);
36              ;                   SELECT 2 (DOB**2,DIAG); NIOP 10;DIB 1,DIAG;
37              ;                   CHECK FOR LOW BIT (BIT 15) SET.
38              ;
39              ; 11.97.2        CONTNETS OF DCU ACCS WHEN FAILURE OCCURS
40              ;                   **SAME AS 11.76.2
41              ;
42              ; 11.97.3        HINTS IF FAILURE OCCURS
43              ; 11.97.3.1        CHECK RDS2 OR LDS2 THRU BUSS SWITCH MUX
44              ; 11.97.3.2        CHECK *RSEL TO BUS SWITCH MUX
45              ; 11.97.3.3        CHECK XEN TO BUSS SWITCH AND GATES
46              ; 11.97.3.4        CHECK *CDS2 TO DIAG MUX BIT 15 UPPER
47              ; 11.97.3.5        CHECK FOR SELECT 2 TO DIAG MUX
48              ;                   BIT 15 UPPER.
49              ;
50              ;
51              ;*****************************************************************
52              ;               * INDICATES INVERTED SIGNAL
53              ;               ** INDICATES CONTENTS NOT AC#
54
55
```

```
10053 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.98          TEST #                    NAME
06              ;                97                        P2T28
07              ;
08              ; 11.98.1        OBJECTIVE OF THE TEST:
09              ;                  CHECKS THAT DS BIT 2 IS NOT SHORTED TO
10              ;                  ANY I/O COMMAND OR ANY DS BIT. TEST
11              ;                  SEQ IS: PH2ST (11.73.1.2); SELECT 2
12              ;                  (DOB **2,DIAG); FOLLOWED BY COMMAND 13
13              ;                  ON FROM COMMAND TABLE; DIB 1,DIAG; CHECK
14              ;                  FOR BIT 15 OFF.
15              ;
16              ; 11.98.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                  **SAME AS 11.76.2
18              ;
19              ; 11.98.3        HINTS IF FAILURE OCCURS
20              ; 11.98.3.1        CHECK FOR A SHORT FROM SIGNAL BEING TESTED
21              ;                  TO BAD SIGNAL.
22              ;
23              ;
24              ;*****************************************************************
25
26
27
28
29              ;*****************************************************************
30              ;
31              ; 11.99          TEST #                    NAME
32              ;                98                        P2T29
33              ;
34              ; 11.99.1        OBJECTIVE OF THE TEST:
35              ;                  CHECKS THAT DS BIT 3 IS PROPOGATED THRU
36              ;                  BUSS SWITCH TO COMMON SIDE FROM PORT
37              ;                  BEING TESTED. TEST SEQ IS: PH2ST
38              ;                  (11.73.1.2); SELECT 3 (DOB **3,DIAG);
39              ;                  NIOP 4; DIB 1,DIAG; CHECK FOR LOW BIT
40              ;                  (15) SET.
41              ;
42              ; 11.99.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
43              ;                  **SAME AS 11.77.2
44              ;
45              ; 11.99.3        HINTS IF FAILURE OCCURS
46              ; 11.99.3.1        CHECK RDS3 OR LDS3 THRU BUSS SWITCH MUX
47              ; 11.99.3.2        CHECK *RSEL TO BUSS SWITCH MUX
48              ; 11.99.3.3        CHECK XEN TO BUSS SWITCH AND GATES
49              ; 11.99.3.4        CHECK *CDS3 TO DIAG MUX BIT 15 UPPER
50              ; 11.99.3.5        CHECK SELECT 3 TO DIAG MUX BIT 15 UPPER
51              ;
52              ;
53              ;*****************************************************************
54              ;               * INDICATES INVERTED SIGNAL
55              ;               ** INDICATES CONTENTS NOT AC#
56
57
```

```
10054 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.100         TEST #                    NAME
06              ;                99                        P2T30
07              ;
08              ; 11.100.1       OBJECTIVE OF THE TEST:
09              ;                  CHECKS THAT DS BIT 3 IS NOT SHORTED TO
10              ;                  ANY I/O SIGNAL OR ANY OTHER DS BIT.
11              ;                  TEST SEQ IS: PH2ST (11.73.1.2); SELECT
12              ;                  3 (DOB **3,DIAG); FOLLOWED BY COMMAND
13              ;                  14 FROM COMMAND TABLE, DIB 1,DIAG; CHECK
14              ;                  FOR LOW BIT (15) OFF.
15              ;
16              ; 11.100.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                  **SAME AS 11.76.2
18              ;
19              ; 11.100.3       HINTS IF FAILURE OCCURS
20              ; 11.100.3.1       CHECK FOR A SHORT FROM SIGNAL BEING TESTED
21              ;                  TO BAD SIGNAL.
22              ;
23              ;
24              ;*****************************************************************
25
26
27              ;*****************************************************************
28              ;
29              ; 11.101         TEST #                    NAME
30              ;                100                       P2T31
31              ;
32              ; 11.101.1       OBJECTIVE OF THE TEST:
33              ;                  CHECK THAT DS BIT 4 IS PROPOGATED THRU
34              ;                  BUSS SWITCH TO COMMON SIDE FROM PORT
35              ;                  BEING TESTED. TEST SEQ IS: PH2ST
36              ;                  (11.73.1.2), SELECT 4 (DOB **4,DIAG),
37              ;                  NIOP 2, DIB 1,DIAG, CHECK FOR BIT 15
38              ;                  SET.
39              ;
40              ; 11.101.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
41              ;                  **SAME AS 11.77.2
42              ;
43              ; 11.101.3       HINTS IF FAILURE OCCURS
44              ; 11.101.3.1       CHECK RDS4 OR LDS4 THRU BUSS SWITCH MUX
45              ; 11.101.3.2       CHECK *RSEL TO BUSS SWITCH MUX
46              ; 11.101.3.3       CHECK XEN TO BUSS SWITCH AND GATES
47              ; 11.101.3.4       CHECK *CDS4 TO DIAG MUX BIT 15 UPPER
48              ; 11.101.3.5       CHECK SELECT 4 IS ON TO DIAG MUX BIT
49              ;                  15 UPPER.
50              ;
51              ;
52              ;*****************************************************************
53
```

```
10055 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.102        TEST #                  NAME
06              ;               101                     P2T32
07              ;
08              ; 11.102.1      OBJECTIVE OF THE TEST:
09              ;                  CHECK THAT DS BIT 4 IS NOT SHORTED TO
10              ;                  ANY I/O SIG OR ANY DS BIT. TEST SEQ IS:
11              ;                  PH2ST (11.73.1.2); SELECT 4 (DOB
12              ;                  **4,DIAG); FOLLOWED BY COMMAND 15 ON FROM
13              ;                  COMMAND TABLE. DIB 1,DIAG; CHECK FOR BIT
14              ;                  15 IS OFF.
15              ;
16              ; 11.102.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                  **SAME AS 11.76.2
18              ;
19              ; 11.102.3      HINTS IF FAILURE OCCURS
20              ; 11.102.3.1       CHECK FOR A SHORT FROM SIGNAL BEING
21              ;                  TESTED TO BAD SIGNAL.
22              ;
23              ;
24              ;*****************************************************************
25
26
27              ;*****************************************************************
28              ;
29              ; 11.103        TEST #                  NAME
30              ;               102                     P2T33
31              ;
32              ; 11.103.1      OBJECTIVE OF THE TEST:
33              ;                  CHECKS THAT DS BIT5 IS PROPOGATED THRU
34              ;                  BUSS SWITCH TO COMMON SIDE FROM PORT
35              ;                  BEING TESTED. TEST SEQ IS: PH2ST
36              ;                  (11.73.1.2), SELECT 5 (DOB **5,DIAG)
37              ;                  NIOP 1, DIB 1,DIAG, CHECK FOR BIT 15
38              ;                  SET.
39              ;
40              ; 11.103.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
41              ;                  **SAME AS 11.77.2
42              ;
43              ; 11.103.3.     HINTS IF FAILURE OCCURS
44              ; 11.103.3.1       CHECK RDS5 OR LDS5 THRU BUSS SWITCH MUX
45              ; 11.103.3.2       CHECK *RSEL TO BUSS SWITCH MUX
46              ; 11.103.3.3       CHECK XEN TO BUSS SWITCH AND GATES
47              ; 11.103.3.4       CHECK *CDS5 TO DIAG MUX BIT 15 UPPER
48              ; 11.103.3.5       CHECK SELECT 5 TO DIAG MUX BIT 15 UPPER
49              ;
50              ;
51              ;*****************************************************************
52              ;               * INDICATES INVERTED SIGNAL
53              ;               ** INDICATES CONTENTS NOT AC#
54
55
```

```
10056 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ;
06              ; 11.104        TEST #                  NAME
07              ;               103                     P2T34
08              ;
09              ; 11.104.1      OBJECTIVE OF THE TEST:
10              ;                  CHECK THAT *RXMD/LXMD IS SET BY A DOA
11              ;                  WITH BIT 15 ON A ONE. TEST SEQ IS:
12              ;                  PH2ST (11.73.1.2); SELECT 6 (DOB
13              ;                  **6,DIAG); DOAP 0,MUX (BIT 15 ON A ONE
14              ;                  IN AC0); DIB 1,DIAG; CHECK FOR LOW BIT
15              ;                  (15) ON.
16              ;
17              ; 11.104.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
18              ;                  AC0 = CONTENTS DOA-ED TO MUX
19              ;                  AC1 = RESULT OF DIB
20              ;                  AC2 = POINTER TO SELECT NUMBER IN NUMTAB
21              ;                  AC3 = ADDRESS ON LON ROUTINE +2
22              ;
23              ; 11.104.3      HINTS IF FAILURE OCCURS
24              ; 11.104.3.1       CHECK *CDATA IS TO REG FILE
25              ; 11.104.3.2       CHECK CDATOA TO REG FILE
26              ; 11.104.3.3       CHECK UMC TO REG FILE
27              ; 11.104.3.4       CHECK *RXMD/LXMD TO DIAG MUX BIT
28              ;                  15 UPPER
29              ; 11.104.3.5       CHECK SELECT 6 TO DIAG MUX BIT IS
30              ;                  UPPER
31              ;
32              ;
33              ;*****************************************************************
34
35
36              ;*****************************************************************
37              ;
38              ; 11.105        TEST #                  NAME
39              ;               104                     P2T35
40              ;
41              ; 11.105.1      OBJECTIVE OF THE TEST:
42              ;                  CHECKS THAT ONLY BIT 15 ON WITH
43              ;                  A DOA SETS *RXMD/LXMD IF ANY ADDRESS
44              ;                  TO 377 FAILS, TEST WILL LOOP WITH
45              ;                  FAILING ADDRESS.
46              ;
47              ; 11.105.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
48              ;                  AC0 = ADDRESS OUT WITH DOA
49              ;                  AC1 = RESULT OF DIB
50              ;                  AC2 = POINTER TO SELECT # IN NUMBTAB
51              ;                  AC3 = 17777
52              ;
53              ; 11.105.3      HINTS IF FAILURE OCCURS
54              ; 11.105.3.1    CHECK FOR SHORT BETWEEN CDAT15 AND FAILING
55              ;               BIT
56              ;
57              ;
58              ;*****************************************************************
```

```
10057 .MAIN
01              ;*****************************************************************
02              ;
03              ; 11.106          TEST #                    NAME
04              ;
05              ;                 105                       P2T36
06              ;
07              ; 11.106.1        OBJECTIVE OF THE TEST:
08              ;                    CHECKS THAT *RXMD/LXMD SETS ONLY FOR
09              ;                    UMC AND A DOA WITH BIT IS SET. TEST
10              ;                    SEQ IS: PH2ST (11.73.1.2); SELECT 6
11              ;                    (DOB **6,DIAG); DOAP 0,37 (CONTENTS
12              ;                    OF AC0 IS BIT 15 ON); DIB 1,DIAG;
13              ;                    CHECK FOR LOW BIT (15) OFF.
14              ;
15              ; 11.106.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                    AC0 = VALUE DOAED TO DC37
17              ;                    AC1 = RESULT OF DIB TO DIAG
18              ;                    AC2 = POINTER TO SELECT # IN NUMTAB
19              ;                    AC3 = ADDRESS OF LON ROUTINE +2
20              ;
21              ; 11.106.3        HINTS IF FAILURE OCCURS
22              ; 11.106.3.1          CHECK UMC TO REG FILE (UMC SHOULD NOT
23              ;                    BE THERE).
24              ;
25              ;
26              ;*****************************************************************
27
28              ;*****************************************************************
29              ;
30              ; 11.107          TEST #                          NAME
31              ;                 106                             P2T37
32              ;
33              ; 11.107.1        OBJECTIVE OF THE TEST:
34              ;                    CHECK THAT *C/WE SETS FOR DOA WITH
35              ;                    ADDRESS 377 AND BIT 15 ON TEST SEQ
36              ;                    IS: PH2ST (11.73.1.2),SELECT 7,
37              ;                    (DOB **7,DIAG), DOAP 0,MUX (AC0
38              ;                    CONTAINS 777), DIB 1,MUX CHECK FOR
39              ;                    LOW BIT ON.
40              ;
41              ; 11.107.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
42              ;                    AC0 = VALUE DOAED TO MUX
43              ;                    AC1 = RESULT OF DIB DIAG
44              ;                    AC2 = POINTER TO SELECT # IN NUMTAB
45              ;                    AC3 = LON
46              ;
47              ; 11.107.3        HINTS IF FAILURE OCCURS
48              ; 11.107.3.1          CHECK PROPER DECODE TO REG FILE THAT
49              ;                    PRODUCES *RE/LE & WRE/WLE
50              ; 11.107.3.2          CHECK *WRE/WLE TO *C/WE OR GATE
51              ; 11.107.3.3          CHECK *C/WE TO DIAG MUX BIT 15 UPPER
52              ; 11.107.3.4          CHECK SELECT 7 TO DIAG MUX BIT 15 UPPER
53              ;
54              ;
55              ;*****************************************************************
56              ;                 * INDICATES INVERTED SIGNAL
57              ;                 ** INDICATES CONTENTS NOT AC#
58
59
60
```

```
 0058 .MAIN
01
02              ;*****************************************************************
03              ;
04              ; 11.108          TEST #                          NAME
05              ;                 107                             P2T38
06              ;
07              ; 11.108.1        OBJECTIVE OF THE TEST:
08              ;                    CHECKS THAT *C/WE SETS FOR A DOA WITH
09              ;                    ADDRESS 377 AND BIT 15 OFF. TEST
10              ;                    SEQ IS: PH2ST (11.73.1.2), SELECT 7
11              ;                    (DOB **7,DIAG), DOAP 0,MUX (AC0 CONTAINS
12              ;                    776), DIB 1,DIAG, CHECK FOR LOW BIT (15)
13              ;                    ON.
14              ;
15              ; 11.108.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                    **SAME AS 11.107.2
17              ;
18              ; 11.108.3        HINTS IF FAILURE OCCURS
19              ;
20              ; 11.108.3.1      SEE 11.107.3.1, .2, .3,.4
21              ;
22              ;
23              ;*****************************************************************
24
25
26
27              ;*****************************************************************
28              ;
29              ; 11.109          TEST #                    NAME
30              ;                 108                       P2T39
31              ;
32              ; 11.109.1        OBJECTIVE OF THE TEST:
33              ;                    CHECKS THAT *C/WE SETS FOR A
34              ;                    DOA TO UMC WITH ADDRESS 376
35              ;                    & BIT 15 ON. TEST SEQ IS:PH2ST(11.5.1.2);
36              ;                    SELECT 6 DOA 0,MUX (AC0 CONTAINS 775);
37              ;                    DIB 1,DIAG; CHECK FOR LOW BIT
38              ;                    (15) ON.
39              ;
40              ; 11.109.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
41              ;                    **SAME AS 11.107.2
42              ;
43              ; 11.109.3        HINTS IF FAILURE OCCURS
44              ; 11.109.3.1          CHECK * RE/LE TO *C/WE GATE
45              ; 11.109.3.2          ALSO SEE 11.107.3.1, .3,.4
46              ;
47              ;
48              ;*****************************************************************
```

```
10059 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.110          TEST #                      NAME
06              ;                 109                         P2T40
07              ;
08              ; 11.110.1        OBJECTIVE OF THE TEST:
09              ;                    CHECKS THAT *C/WE SETS FOR A DOA
10              ;                    TO UMC WITH ADDRESS 376 AND BIT
11              ;                    15 OFF. TEST SEQ IS: PH2ST
12              ;                    (11.73.1.2); SELECT 7 (DOB **7,
13              ;                    DIAG); DOA 0,MUX (AC0 CONTAINS
14              ;                    774); DIB 1,DIAG, CHECK FOR LOW
15              ;                    BIT (15) ON.
16              ;
17              ; 11.110.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
18              ;                    **SAME AS 11.107.2
19              ;
20              ; 11.110.3        HINTS IF FAILURE OCCURS
21              ; 11.110.3.1         SEE 11.109.3.1.2
22              ;
23              ;
24              ;*****************************************************************
25
26
27              ;*****************************************************************
28              ;
29              ; 11.111          TEST #                                 NAME
30              ;                 110                                    P2T41
31              ;
32              ; 11.111.1        OBJECTIVE OF THE TEST:
33              ;                    CHECKS THAT ONLY DOA TO UMC WITH AC
34              ;                    CONTAINING 777,776,775,774 WILL
35              ;                    PRODUCE *C/WE. IF TEST FAILS BAD
36              ;                    ADDRESS WILL BE OUTPUTTED CONTINUALLY.
37              ;
38              ; 11.111.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
39              ;                    **SAME AS 11.105.2
40              ;
41              ; 11.111.3        HINTS IF FAILURE OCCURS
42              ; 11.111.3.1         CHECKS FOR A SHORT OR OPEN IN DECODE
43              ;                    CIRCUIT TO REGISTER FILE.
44              ;
45              ;
46              ;*****************************************************************
47              ;                 * INDICATES INVERTED SIGNAL
48              ;                 ** INDICATES CONTENTS NOT AC#
49
```

```
10060 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.112          TEST #                      NAME
06              ;                 111                         P2T42
07              ;
08              ; 11.112.1        OBJECTIVE OF THE TEST:
09              ;                    CHECKS THE *C/WE WILL ONLY SET
10              ;                    WITH DOA TO (UMC) AND NOT
11              ;                    ANOTHER DC. TEST SEQ IS: PH2ST
12              ;                    (11.73.1.2) SELECT 7,(DOB **7,DIAG)
13              ;                    DOAP 0,37 (0=VALID ADDRESS) DIB
14              ;                    1,MUX. CHECK FOR LOW BIT (15) OFF.
15              ;
16              ; 11.112.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                    **SAME AS 11.106.2
18              ;
19              ; 11.112.3        HINTS IF FAILURE OCCURS
20              ;                 SAME AS 11.106.3
21              ;
22              ;
23              ;*****************************************************************
24
25
26              ;*****************************************************************
27              ;
28              ; 11.113          TEST #                      NAME
29              ;                 112                         P2T43
30              ;
31              ; 11.113.1        OBJECTIVE OF THE TEST:
32              ;                    CHECKS THAT SRXON OR SLXON IS SET WITH
33              ;                    A DOA TO UMC WITH 775 FOLLOWED BY A DOC
34              ;                    WITH BIT 15 ON A ONE. TEST SEQ IS: PH2ST;
35              ;                    SELECT 12 IF RIGHT OR SELECT 14 IF LEFT
36              ;                    DOA **775,MUX; DOC 0,MUX; (AC0=BIT 15 SET).
37              ;                    DIB 1,MUX; CHECK FOR HIGH BIT (BIT0) ON.
38              ;
39              ; 11.113.2        CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
40              ;                    AC0 = 00001
41              ;                    AC1 = RESULTS OF DIB DIAG
42              ;                    AC2 = POINTER TO SELECT # IN NUMBTAB
43              ;                    AC3 = ADDRESS OF HON ROUTINE +2
44              ;
45              ; 11.113.3        HINTS IF FAILURE OCCURS
46              ; 11.113.3.1         CHECK CDATOC TO *CRDOX OR *CLDOX DECODE
47              ; 11.113.3.2         CHECK *C/WE TO ENABLE CDATOC GATE
48              ; 11.113.3.3         CHECK *CRDOCX OR *CLDOCX TO SRXON OR
49              ;                    SLXON FLOP
50              ; 11.113.3.4         CHECK SRXON OR SLXON TO DIAG MUX BIT
51              ;                    0 LOWER
52              ; 11.113.3.5         CHECK SELECT 12 OR SELECT 14 TO DIAG
53              ;                    MUX BIT 0 LOWER.
54              ;
55              ;
56              ;*****************************************************************
57
```

```
10061 .MAIN
01              ;*****************************************************************
02              ;
03              ; 11.114         TEST #                          NAME
04              ;                113                             P2T44
05              ;
06              ; 11.114.1       OBJECTIVE OF THE TEST:
07              ;                   CHECKS THAT A DOA WITH 775 TO UMC
08              ;                   FOLLOWED BY DOC WITH BIT 15 ON ONLY
09              ;                   SETS SRXON OR SLXON. TEST SEQ IS:
10              ;                   PH2ST (11.73.1.2); SELECT XX, DOA
11              ;                   **775, MUX; DOC (BIT 15 SET) MUX; DIB
12              ;                   1,DIAG; CHECK FOR HIGH BIT OFF.
13              ;
14              ; 11.114.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                   **SAME AS 11.113.2
16              ;
17              ; 11.114.3       HINTS IF FAILURE OCCURS
18              ; 11.114.3.1        CHECK DECODER FOR FALSE OUTPUT OF*CRDOCX
19              ;                   OR *CLDOCX.
20              ; 11.114.3.2        CHECK FOR SHORT FROM *CRDOCX OR *CLDOCX
21              ;                   TO SOME OTHER SIGNAL.
22              ;
23              ;*****************************************************************
24              ;*****************************************************************
25              ;
26              ; 11.115         TEST #                          NAME
27              ;                114                             P2T45
28              ;
29              ; 11.115.1       OBJECTIVE OF THE TEST:
30              ;                  CHECKS THAT OPP SIGNAL THAN IN P2T43
31              ;                  SETS SRXON OR SLXON ONLY DIFFERENCE
32              ;                  IS *LDIAGF IS SET TO DECODERS.
33              ;
34              ; 11.115.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
35              ;                  **SAME AS 11.113.2
36              ;
37              ; 11.115.3       HINTS IF FAILURE OCCURS
38              ; 11.115.3.1       SAME AS 11.113.3
39              ;
40              ;
41              ;*****************************************************************
42              ;*****************************************************************
43              ;
44              ; 11.116         TEST #                  NAME
45              ;                115                     P2T46
46              ;
47              ; 11.116.1       OBJECTIVE OF THE TEST:
48              ;                   CHECKS OPPOSITE SIGNAL FROM P2T44.
49              ;                   DIFFERENCE BEING *LDIAGF SET TO
50              ;                   DECODERS.
51              ;
52              ; 11.116.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
53              ;                   **SAME AS 11.114.2
54              ;
55              ; 11.116.3       HINTS IF FAILURE OCCURS
56              ; 11.116.3.1        SAME AS 11.114.3
57              ;
58              ;*****************************************************************
59
```

```
10062 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.117         TEST #                          NAME
06              ;                116                             P2T47
07              ;
08              ; 11.117.1       OBJECTIVE OF THE TEST:
09              ;                  CHECKS THE SRRON OR SLRON IS SET
10              ;                  WITH A DOA TO UMC WITH A 774 FOLLOWED
11              ;                  BY A DOC WITH BIT 15 SET. TEST SEQ
12              ;                  IS: PH2ST; SELECT 13 OR 15; DOA 774,
13              ;                  MUX; DOC 1,MUX;DIB DIAG; CHECK FOR HIGH
14              ;                  BIT (BIT0) ON.
15              ;
16              ; 11.117.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                  **SAME AS 11.113.2
18              ;
19              ; 11.117.3       HINTS IF FAILURE OCCURS
20              ; 11.117.3.1       CHECK *CRDOCR OR *CLDOCR TO SRRON OR
21              ;                  SLRON FLOPS.
22              ; 11.117.3.2       CHECK SRRON OR SLRON TO DIAG MUX BIT
23              ;                  0 UPPER.
24              ; 11.117.3.3       CHECK SELECT 13 OR 15 ON TO DIAG MUX
25              ;                  BIT 0 UPPER.
26              ;
27              ;
28              ;*****************************************************************
29
```

```
10063 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.118         TEST #                              NAME
06              ;                117                                 P2T48
07              ;
08              ; 11.118.1       OBJECTIVE OF THE TEST:
09              ;                   CHECKS OPP SIGNAL FROM P2T47
10              ;                   DIFFERENCE BEING *LDIAGF IS
11              ;                   SET TO DECODERS.
12              ;
13              ; 11.118.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
14              ;                  **SAME AS 11.113.2
15              ;
16              ; 11.118.3       HINTS IF FAILURE OCCURS
17              ; 11.118.3.1       SAME AS 11.117.3
18              ;
19              ;*****************************************************************
20
21
22              ;*****************************************************************
23              ;
24              ; 11.119         TEST #                              NAME
25              ;                118                                 P2T49
26              ;
27              ; 11.119.1       OBJECTIVE OF THE TEST:
28              ;                   CHECKS THAT ONLY SRRON OR SLRON IS
29              ;                   SET BY A DOA WITH 774 TO MUX FOLLOWED
30              ;                   BY DOC WITH BIT 15 ON.
31              ;
32              ; 11.119.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
33              ;                   **SAME AS 11.113.2
34              ;
35              ; 11.119.3       HINTS IF FAILURE OCCURS
36              ; 11.119.3.1       SAME AS 11.114.3
37              ;
38              ;*****************************************************************
39              ;               * INDICATES INVERTED SIGNAL
40              ;               ** INDICATES CONTENTS NOT AC#
41
```

```
10064 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ;
06              ; 11.120         TEST #                              NAME
07              ;                119                                 P2T50
08              ;
09              ; 11.120.1       OBJECTIVE OF THE TEST:
10              ;                   CHECKS OPPOSITE SIGNAL FROM P2T49
11              ;                   DIFFERENCE BEING *LDIAGF IS SET
12              ;                   TO DECODERS.
13              ;
14              ; 11.120.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                   **SAME AS 11.113.2
16              ;
17              ; 11.120.3       HINTS IF FAILURE OCCURS
18              ; 11.120.3.1       SAME AS 11.114.3
19              ;
20              ;
21              ;*****************************************************************
22
23
24              ;*****************************************************************
25              ;
26              ; 11.121         TEST #                              NAME
27              ;                120                                 P2T51
28              ;
29              ; 11.121.1       OBJECTIVE OF THE TEST:
30              ;                   CHECKS THAT *R/L CLDN SETS WHEN CLTX
31              ;                   IS TURNED ON.
32              ;                   TEST SEQ IS: PH2ST (11.73.1.2); SELECT
33              ;                   17 (DOB **17,DIAG); TURN ON CL TRANSMITTER;
34              ;                   NIOP DIAG; DIB 1,DIAG; IS BIT 15 FLOP ON?
35              ;
36              ; 11.121.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
37              ;                   **SAME AS 11.113.2
38              ;
39              ; 11.121.3       HINTS IF FAILURE OCCURS
40              ; 11.121.3.1       CHECK SRXON OR SLXON TO DONE AND GATES
41              ; 11.121.3.2       CHECK LCLDN OR RCLDN TO *R/L CLDN
42              ; 11.121.3.3       CHECK *R/C CLDN TO DIAG MUX BIT 0 LOWER
43              ; 11.121.3.4       CHECK SELECT 17 ON TO DIAG MUX BIT 15 LOWER
44              ;
45              ;
46              ;*****************************************************************
47
```

```
10065 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.122        TEST #                  NAME
06              ;               121                     P2T52
07              ;
08              ; 11.122.1      OBJECTIVE OF THE TEST:
09              ;                  CHECKS THAT AFTER GOING THRU SAME
10              ;                  SEQ AS IN TEST P2T51 AND THEN ISSUING
11              ;                  AN IORST THAT COMM LINK DONE IS NOT
12              ;                  SET.
13              ;
14              ; 11.122.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                  **SAME AS 11.113.2
16              ;
17              ; 11.122.3      HINTS IF FAILURE OCCURS
18              ; 11.122.3.1       CHECK CIORST TO RESET OF SRXON
19              ;                  OR SLXON FLOPS.
20              ;
21              ;
22              ;*****************************************************************
23
24
25
26              ;*****************************************************************
27              ;
28              ; 11.123        TEST #                          NAME
29              ;               122                             P2T53
30              ;
31              ; 11.123.1      OBJECTIVE OF THE TEST:
32              ;                  AFTER SETTING A COMM LINK TX DONE
33              ;                  A DIB TO OPP. REC WILL CLEAR THAT
34              ;                  DONE.
35              ;
36              ; 11.123.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
37              ;                  **SAME AS 11.113.2
38              ;
39              ; 11.123.3      HINTS IF FAILURE OCCURS
40              ; 11.123.3.1       CHECK *CLDIB OR *CRDIB TO COMM LINK
41              ;                  DONE FLOPS.
42              ;
43              ;
44              ;*****************************************************************
45              ;               * INDICATES INVERTED SIGNAL
46              ;               ** INDICATES CONTENTS NOT AC#
47
```

```
10066 .MAIN
01              ;*****************************************************************
02              ; 11.124        TEST #                          NAME
03              ;               123                             P2T54
04              ;
05              ; 11.124.1      OBJECTIVE OF THE TEST:
06              ;                  CHECKS THAT *R/L WDN SETS WHEN
07              ;                  WATCH DOG TIMER IS TURNED ON.
08              ;                  TEST SEQ IS: PH2ST; SELECT 16;
09              ;                  TURNON WDT; WAIT A DELAY TIME;
10              ;                  CHECK FOR *R/L WDN TO SET LOW
11              ;                  BIT OF DIAG FLOPS.
12              ;
13              ; 11.124.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
14              ;                  AC0 = 00001
15              ;                  AC1 = RESULT OF DIB
16              ;                  AC2 = POINTER 07 IN NUMBTAB
17              ;
18              ; 11.124.3      HINTS IF FAILURE OCCURS
19              ; 11.124.3.1       CHECK *WRDOC OR *WLDOC TO WDT FLOPS
20              ; 11.124.3.2       CHECK P1 AND P2 TO WDT FLOPS
21              ; 11.124.3.3       CHECK CDAT15 TO WDT FLOPS
22              ; 11.124.3.4       CHECK LWDN OR RWDN THRU TO *R/LWDN
23              ; 11.124.3.5       CHECK *CRQENB TO WDT DONE FLOPS
24              ; 11.124.3.6       CHECK *R/LWDN TO DIAG MUX BIT 15 LOWER
25              ; 11.124.3.7       CHECK SELECT 16 TO DIAG MUX BIT 15 LOWER
26              ;*****************************************************************
27              ;*****************************************************************
28              ; 11.125        TEST #                          NAME
29              ;               124                             P2T55
30              ;
31              ; 11.125.1      OBJECTIVE OF THE TEST:
32              ;                  CHECKS THAT AFTER SETTING DONE FOR
33              ;                  WDT THAT IO CLR WILL CLR DONE.
34              ;
35              ; 11.125.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
36              ;                  **SAME AS 11.124.2
37              ;
38              ; 11.125.3      HINTS IF FAILURE OCCURS
39              ; 11.125.3.1       CHECK *WRCLR OR *WLCLR TO WDT FLOPS
40              ;*****************************************************************
41              ;*****************************************************************
42              ; 11.126        TEST #                          NAME
43              ;               125                             P2T56
44              ;
45              ; 11.126.1      OBJECTIVE OF THE TEST:
46              ;                  CHECKS TAHT WHEN WDT SETS DONE ADDRESS
47              ;                  PASSED BACK VIA DIA IS WDT.
48              ;
49              ; 11.126.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
50              ;                  AC0 = ADDRESS REC ON DIA
51              ;                  AC1 = ADDRESS OF WDT
52              ;
53              ; 11.126.3      HINTS IF FAILURE OCCURS
54              ; 11.126.3.1       CHECK *R/L WDN TO DIA GATES
55              ; 11.126.3.2       CHECK CDATIA TO DIA GATES
56              ;*****************************************************************
57              ;               * INDICATES INVERTED SIGNAL
58              ;               ** INDICATES CONTENTS NOT AC#
59
```

```
10067 .MAIN
01              ;*****************************************************************
02              ; 11.127        TEST #                                  NAME
03              ;               126                                     P2T62
04              ;
05              ; 11.127.1      OBJECTIVE OF THE TEST:
06              ;                  CHECK THAT COMM LINK REG FILE CAN
07              ;                  REC AND SEND ALL COMBINATIONS OF
08              ;                  DATA FROM 0-377. IF TEST FAILS BAD
09              ;                  DATA PATTERN IS SENT OUT.
10              ;
11              ; 11.127.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
12              ;                  AC0 = DATA REC
13              ;                  AC1 = DATA SENT
14              ;                  AC2 = DATA SENT
15              ;                  AC3 = 177777
16              ;
17              ; 11.127.3      HINTS IF FAILURE OCCURS
18              ; 11.127.3.1      CHECK ALL COMMON DATA LINES TO COMM LINK
19              ;                 REG FILE
20              ; 11.127.3.2      CHECK *CRDOB OR *CLDOB TO COMM LINK REG
21              ;                 FILE
22              ; 11.127.3.3      CHECK *CRDIB OR *CLDIB TO COMM LINK REG
23              ;                 FILE
24              ; 11.127.3.4      CHECK COMMON BUSS BACK TO SIDE BEING TESTED.
25              ;
26              ;*****************************************************************
27              ;*****************************************************************
28              ;
29              ; 11.128         TEST #                          NAME
30              ;               127                             P3T1
31              ;
32              ; 11.128.1      OBJECTIVE OF THE TEST:
33              ;                 CHECKS THE ABILITY OF THE CRC GENERATOR
34              ;                 TO GENERATE A GOOD TEMPORARY FOR ALL
35              ;                 DATA PATTERNS (0-377) WITH THE FOLLOWING
36              ;                 TEMPORARIES: 177777,0,125252,52525,000360,
37              ;                 177417,103417,074360,074000,103777 IF AN
38              ;                 ERROR OCCURS FAILING TEMP & DATA PATTERN
39              ;                 ONLY ARE SENT OUT. TEST SEQ IS:
40              ;                 PH2ST (11.73.1.2); DOB (DATA PATTERN) 0,MUX;
41              ;                 DOB 1(TEMPORARY) CRC; DIB 1(NEW TEMP)CRC;
42              ;                 STORE HARDWARE NEW TEMP; CALCULATE SOFTWARE
43              ;                 NEWTEMP; COMPARE HARDWARE TO SOFTWARE.
44              ;
45              ; 11.128.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
46              ;                  AC0 = CRC CALCULATED BY SOFTWARE
47              ;                  AC1 = CRC CALCULATED BY HARDWARE
48              ;                  AC2 = OLD TEMP
49              ;                  AC3 = NEW TEMP
50              ;
51              ; 11.128.3      HINTS IF FAILURE OCCURS
52              ; 11.128.3.1      CHECK CDATOB WITH UMC TO CRC DATA FILE
53              ; 11.128.3.2      CHECK SEL LINE TO POLY I/O SELECT MUXES
54              ; 11.128.3.3      CHECK PROPOGATION OF CRC TEMP AND CRC DATA
55              ;                 THRU XOR GATES
56              ; 11.128.3.4      CHECK CDATOB TO CRC TEMP FILES WITH CRC
57              ; 11.128.3.5      CHECK CDAITB WITH CRC TO DATA IN FROM
58              ;                 COMMON BUSS
59              ; 11.128.3.6      CHECK POLY I/O MUXES TO CRC TEMP FILES.
60              ;*****************************************************************
```

```
0068 .MAIN
01              ;*****************************************************************
02              ;
03              ; 11.129        TEST #                          NAMES
04              ;               128                             P3T2
05              ;
06              ; 11.129.1      OBJECTIVE OF THE TEST:
07              ;                 SAME AS P3T1 EXCEPT FOR POLY 1
08              ;                 SELECTED BY SETTING *LDIAGF.
09              ;
10              ; 11.129.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
11              ;                 **SAME AS 11.128.2
12              ;
13              ; 11.129.3      HINTS IF FAILURE OCCURS
14              ;                 SAME AS 11.128.3
15              ;
16              ;
17              ;*****************************************************************
18
19              ;*****************************************************************
20              ;
21              ; 11.130        TEST #                          NAME
22              ;               129                             P3T3
23              ;
24              ; 11.130.1      OBJECTIVE OF THE TEST:
25              ;                  CHECKS THAT ROM GIVES UMC CODE FOR
26              ;                  ONLY 34/44 AND NO OTHERS
27              ;
28              ; 11.130.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
29              ;                 AC0 = DOB MUX INST
30              ;                 AC1 = INSTRUCTION THAT GAVE BAD RESULTS
31              ;                 AC2 = NA
32              ;                 AC3 = 17777
33              ;
34              ; 11.130.3      HINTS IF FAILURE OCCURS
35              ; 11.130.3.1      CHECK ROM OUTPUT FOR UMC WHEN OTHER DC
36              ;                 SENT OUT, COULD BE BAD ROM.
37              ;
38              ;
39              ;*****************************************************************
40              ;*****************************************************************
41              ;
42              ; 11.131        TEST #                          NAME
43              ;               130                             P3T4
44              ;
45              ; 11.131.1      OBJECTIVE OF THE TEST:
46              ;                 CHECK DS ROM FOR CRC OUTPUT ONLY
47              ;                 WHEN DC 35/45 AND NO OTHERS.
48              ;
49              ; 11.131.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
50              ;                 **SAME AS 11.130.2
51              ;
52              ; 11.131.3      HINTS IF FAILURE OCCURS
53              ; 11.131.3.1      CHECK THAT BAD CODE GIVES CRC OUTPUT
54              ;                 FROM ROM IF IT DOES THIS INDICATES
55              ;                 BAD ROM.
56              ;
57              ;
58              ;*****************************************************************
59              ;               * INDICATES INVERTED SIGNAL
60              ;               ** INDICATES CONTENTS NOT AC#
```

```
 0069 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.132        TEST #                          NAMES
06              ;               131                             P4T1
07              ;
08              ; 11.132.1      OBJECTIVE OF THE TEST:
09              ;                 CHECKS THAT *CSELD SETS WHEN DPC IS
10              ;                 ON LINE AND COMM LINK TRANSMITTER IS
11              ;                 TURNED ON. TEST SEQ IS: RESET;ONLINE
12              ;                 TURNON CLT;IF DONE IS  ONE GOOD;IF
13              ;                 NOT BAD.
14              ;
15              ; 11.132.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                 ACCS NOT APPLICABLE - PROGRAM WILL PRINT
17              ;                 "DONE NOT SET" INDICATING THAT NO DONE WAS
18              ;                 SET.
19              ;
20              ; 11.132.3      HINTS IF FAILURE OCCURS
21              ;
22              ; 11.132.3.1    CHECK PROPOGATION OF *R/L CLDN THRU TO
23              ;               *CSELD
24              ; 11.132.3.2    CHECK *CSELD THRU TO *RSLED OR *LSLED
25              ; 11.132.3.3    CHECK *BEN AND *RSEL OR RSEL TO DONE BUSY
26              ;               BUSS ARBITOR GATES
27              ;
28              ;
29              ;*****************************************************************
30
31
32
33              ;*****************************************************************
34              ;
35              ; 11.133        TEST #                          NAME
36              ;               132                             P4T2
37              ;
38              ; 11.133.1      OBJECTIVE OF THE TEST:
39              ;                 CHECKS THAT DPC ON LINE WITH COMM LINK
40              ;                 TRANSMITTER, THAT THE DONE RECEIVED IS
41              ;                 ACTUALLY A TRANSMIT DONE FROM THE COMM
42              ;                 LINK: TEST SEQ IS: RESET, ONLINE, GET
43              ;                 DONE, COMPARE CLT ADDRESS, TO ADDRESS
44              ;                 READ WITH DIA.
45              ;
46              ; 11.133.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
47              ;                 IF MSG IS "DONE NOT SET" ACC'S ARE IRRELEVANT
48              ;                 -SEE P4T1. IF MSG IS "COMM LINK DONE NOT
49              ;                 SET" ACCS ARE, AC0 = ADDRESS READ WITH DIA.
50              ;
51              ; 11.133.3      HINTS IF FAILURE OCCURS
52              ; 11.133.3.1      CHECK DIA GATING TO COMMON BUSS.
53              ;
54              ;
55              ;*****************************************************************
56
```

```
10070 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.134        TEST #                          NAME
06              ;               133                             P4T3
07              ;
08              ; 11.134.1      OBJECTIVE OF THE TEST:
09              ;                 CHECKS THAT IF OPP CLT HAS A CHARACTER
10              ;                 DOBED TO IT THAT THIS PORTS CLR WILL
11              ;                 SET DONE. TEST SEQ: RESET, OFFLINE, SELECT
12              ;                 *LDIAGF, TURNON OPP CLT, DOB CHAR TO
13              ;                 IT, ONLINE, DONESET, YES; GOOD END.
14              ;                 NO: PRINT "COMM LINK DONE NOT SET".
15              ;
16              ; 11.134.2      CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
17              ;                 MESSAGE "COMM LINK DONE NOT SET" MEANS
18              ;                 THAT COMM LINK REC DID NOT SET DONE.
19              ;
20              ; 11.134.3      HINTS IF FAILURE OCCURS
21              ; 11.134.3.1      CHECK *CLDOB OR *CRDOB TO COMM LINK
22              ;                 DONE FLOPS.
23              ; 11.134.3.2      CHECK THAT SRxON OR SLXON IS ON
24              ; 11.134.3.3      CHECK THAT SRRON OR SLRON IS ON
25              ; 11.134.3.4      CHECK *R/L CLDN TO *CSLED.
26              ;
27              ;
28              ;*****************************************************************
29              ;               * INDICATES INVERTED SIGNAL
30
```

```
10071 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.135         TEST #                              NAME
06              ;                134                                 P4T4
07              ;
08              ; 11.135.1       OBJECTIVE OF THE TEST:
09              ;                  CHECKS THAT COMM LINK DONE CLEARS
10              ;                  WHEN COMM LINK TRANSMITTER IS SHUT
11              ;                  OFF VIA A DOA TO ADDRESS IT AND A
12              ;                  DOC TO SHUT IT OFF (NO BIT 15).
13              ;
14              ; 11.135.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                   MSG "DONE STILL SET" INDICATES FAILURE.
16              ;
17              ; 11.135.3       HINTS IF FAILURE OCCURS
18              ; 11.135.3.1       CHECK THAT SRXON OR SLXON IS OFF
19              ; 11.135.3.2       CHECK SRXON OR SLXON TO DONE GATES.
20              ;
21              ;
22              ;*****************************************************************
23
24
25
26              ;*****************************************************************
27              ;
28              ; 11.136         TEST #                              NAME
29              ;                135                                 P4T5
30              ;
31              ; 11.136.1       OBJECTIVE OF THE TEST:
32              ;                  CHECKS THAT COMM LINK REC DONE IS
33              ;                  CLEARED WHEN COMM LINK REC IS SHUT
34              ;                  OFF.
35              ;
36              ; 11.136.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
37              ;                  **SAME AS 11.135.2
38              ;
39              ; 11.136.3       HINTS IF FAILURE OCCURS
40              ; 11.136.3.1       CHECK SRRON OR SLRON IS OFF
41              ; 11.136.3.2       CHECK SRRON OR SLRON TO DONE GATES
42              ;
43              ;
44              ;*****************************************************************
45
```

```
10072 .MAIN
01
02
03
04              ;*****************************************************************
05              ;
06              ; 11.137         TEST #                              NAME
07              ;                136                                 P4T6
08              ;
09              ; 11.137.1       OBJECTIVE OF THE TEST:
10              ;                  CHECKS THAT WHEN DPC IS ON LINE AND
11              ;                  WATCH DOG TIMER IS TURNED ON THAT
12              ;                  FIRST DONE IS A WDT RECEIVER DONE.
13              ;                  TEST SEQ IS: RESET, ONLINE, TURNON
14              ;                  WDT, WAIT FOR DONE, IF NOT DONE IS
15              ;                  SET AFTER DELAY PRINT "WATCH DOG
16              ;                  TIMER DID NOT SET DONE IN TIME" IF
17              ;                  DONE IS SET READ IT (DIA) AND COMPARE
18              ;                  IT TO WDT REC. ADD.
19              ;
20              ; 11.137.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
21              ;
22              ; 11.137.3.1       CHECK DIA GATING TO COMMON BUSS
23              ; 11.137.3.2       CHECK WDT DONE FLOPS
24              ;
25              ;
26              ;*****************************************************************
27
28
29
30              ;*****************************************************************
31              ;
32              ; 11.138         TEST #                              NAME
33              ;                137                                 P4T6C
34              ;
35              ; 11.138.1       OBJECTIVE OF THE TEST:
36              ;                  CHECKS THAT AFTER WDT SETS REC DONE AND
37              ;                  A DIB WITH CLEAR IS ISSUED THAT DONE
38              ;                  CLEARS.
39              ;
40              ; 11.138.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
41              ;                  MSG "WDT DID NOT CLEAR DONE" MEANS THAT.
42              ;
43              ; 11.138.3       HINTS IF FAILURE OCCURS
44              ;
45              ; 11.138.3.1       CHECK * WCLR TO WDT DONE FLOPS
46              ;
47              ;
48              ;*****************************************************************
49              ;                * INDICATES INVERTED SIGNAL
50
```

```
10073 .MAIN
01
02
03
04              ;*****************************************************************
05              ;
06              ; 11.139         TEST #                              NAME
07              ;                138                                 P4T7
08              ;
09              ; 11.139.1       OBJECTIVE OF THE TEST:
10              ;                  CHECKS THAT THE WDT WHEN TURNED
11              ;                  ON GETS A TX DONE AFTER A REC
12              ;                  DONE.
13              ;
14              ; 11.139.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                  MSG "WATCH DOG TIMER" DID NOT SET DONE
16              ;                  AC0 = RESULTS OF DIA
17              ;                  AC1 = COMM LINK ADDRESS
18              ;
19              ; 11.139.3       HINTS IF FAILURE OCCURS
20              ; 11.139.3.1       CHECK DIA GATING TO MUX.
21              ;
22              ;
23              ;*****************************************************************
24
25
26
27
28              ;*****************************************************************
29              ;
30              ; 11.140         TEST  #                             NAME
31              ;                139                                 P4T8
32              ;
33              ; 11.140.1       OBJECTIVE OF THE TEST:
34              ;                  CHECKS THAT AFTER A WDT TX DONE BAD
35              ;                  DATA IS DOBED TO WDT THAT THE WDT
36              ;                  SETS DATA ERROR.
37              ;
38              ; 11.140.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
39              ;                  DATA ERROR NOT SET INDICATES ERROR
40              ;
41              ; 11.140.3       HINTS IF FAILURE OCCURS
42              ; 11.140.3.1       CHECK *LDE OR *RDE FLOPS SET
43              ; 11.140.3.2       CHECK P1 TO DATA ERROR FLOPS
44              ; 11.140.3.3       CHECK COMPARATORS
45              ; 11.140.3.4       *CERROR THROUGH MUX
46              ; 11.140.3.5       CHECK DATA ERROR TO COMMON BUSS
47              ;
48              ;
49              ;*****************************************************************
50              ;                * INDICATES INVERTED SIGNAL
51
```

```
10074 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.141         TEST #                              NAME
06              ;                140                                 P4T9
07              ;
08              ; 11.141.1       OBJECTIVE OF THE TEST:
09              ;                  CHECKS WDT FOR TIME OUT ERROR
10              ;
11              ; 11.141.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
12              ;                  "T.O. ERROR NOT SET" INDICATES FAILURE
13              ;
14              ; 11.141.3       HINTS IF FAILURE OCCURS
15              ; 11.141.3.1       CHECK T.O. ERROR TO COMMON BUSS
16              ;
17              ;
18              ;*****************************************************************
19
```

```
10075 .MAIN
01
02
03
04              ;*****************************************************************
05              ;
06              ; 11.142         TEST #                              NAME
07              ;                141                                 P4T11
08              ;
09              ; 11.142.1       OBJECTIVE OF THE TEST:
10              ;                  CHECKS FOR OPP WATCH DOG TIMER OFF
11              ;                  STATUS SETS WHEN REC IS DONE AND
12              ;                  WDT IS OFF.
13              ;
14              ; 11.142.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                  AC0 = RESULT OF DIB
16              ;
17              ; 11.142.3       HINTS IF FAILURE OCCURS
18              ; 11.142.3.1       CHECK CW TO COMMON DATA BUSS BIT 0
19              ; 11.142.3.2       CHECK CDATIB TO DATA STATUS GATING
20              ; 11.142.3.3       CHECK *WRE/LE TO DATA /STATUS GATING
21              ;
22              ;
23              ;*****************************************************************
24
```

```
10076 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.143         TEST #                              NAME
06              ;                142                                 P4T10
07              ;
08              ; 11.143.1       OBJECTIVE OF THE TEST:
09              ;                  CHECKS THAT ALL 64 RANDOM #'S
10              ;                  ARE GENERATED BY WATCH DOG TIMER.
11              ;                  TEST TAKES FIRST 64 WORDS AND COMPARES
12              ;                  THEM AGAINST A KNOWN GOOD TABLE OF WORDS.
13              ;
14              ; 11.143.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                  "WORD NOT FOUND IN TABLE" MEANS THAT
16              ;                  REC WORD IS NO WHERE IN TABLE." SOME WORDS
17              ;                  FOUND"          AC0= GOOD DATA
18              ;                                  AC1= REC WORD
19              ;                                  AC2= POINTER TABLE WORD
20              ;
21              ; 11.143.3       HINTS IF FAILURE OCCURS
22              ;
23              ; 11.143.3.1       CHECK RANDOM # GENERATOR AND GATING TO
24              ;                  COMMON BUSS.
25              ; 11.143.3.2       CHECK COMPARATOR TO WDT.
26              ;
27              ;
28              ;*****************************************************************
29
```

```
10077 .MAIN
01
02
03
04              ;*****************************************************************
05              ;
06              ; 11.144         TEST #                              NAME
07              ;                143                                 P4T13
08              ;
09              ; 11.144.1       OBJECTIVE OF THE TEST:
10              ;                  CHECKS PRIORITY OF WDT OVER COMM LINK
11              ;                  WHEN WDT AND COMM LINK BOTH SHOULD HAVE
12              ;                  SET DONE CHECKS THAT WDT ADDRESS IS REC
13              ;                  ON DIA.
14              ;
15              ; 11.144.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                  AC0= DIA RESULTS
17              ;                  MSG= "PRIORITY NOT CORRECT" INDICATES FAILURE
18              ;
19              ; 11.144.3       HINTS IF FAILURE OCCURS
20              ; 11.144.3.1       CHECK PRIORITY GATING TO CSELD.
21              ;
22              ;
23              ;*****************************************************************
24
25
26
27              ;*****************************************************************
28              ;
29              ; 11.145         TEST #                              NAME
30              ;                144                                 P4T14
31              ;
32              ; 11.145.1       OBJECTIVE OF THE TEST:
33              ;                  CHECK PRIORITY OF WDT OVER COMM LINK
34              ;                  REC.
35              ;
36              ; 11.145.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
37              ;                      **SAME 11.144.2
38              ;
39              ; 11.145.3       HINTS IF FAILURE OCCURS
40              ; 11.145.3.1       SAME AS 11.144.3
41              ;
42              ;
43              ;*****************************************************************
44
```

```
10078 .MAIN
01
02
03
04              ;*****************************************************************
05              ;
06              ; 11.146         TEST #                              NAME
07              ;                145                                 P4T15
08              ;
09              ; 11.146.1       OBJECTIVE OF THE TEST:
10              ;                  CHECK PRIORITY OF COMM LINK REC
11              ;                  OVER COMM LINK TRANSMITTER.
12              ;
13              ; 11.146.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
14              ;                  **SAME AS 11.144.2
15              ;
16              ; 11.146.3       HINTS IF FAILURE OCCURS
17              ; 11.146.3.1       SAME AS 11.144.3
18              ;
19              ;
20              ;*****************************************************************
21
```

```
10079 .MAIN
01
02              ;*****************************************************************
03              ; 11.147         TEST #                              NAME
04              ;                146                                 177777
05              ;
06              ; 11.147.1       OBJECTIVE OF THE TEST:
07              ;                  THIS IS A SPACER FLAG TO DELIMIT
08              ;                  AUTO PORTION FROM PORTION REQUIRING
09              ;                  OPERATOR INTERACTION.
10              ;
11              ;
12              ;
13              ;*****************************************************************
14
15
16              ;*****************************************************************
17              ;
18              ; 11.148         TEST #                              NAME
19              ;                147                                 P5T1
20              ;
21              ; 11.148.1       OBJECTIVE OF THE TEST:
22              ;                  OPERATOR MUST FOLLOW DIRECTIONS
23              ;                  PRINTED WHEN HE FEELS THAT TEST
24              ;                  IS CORRECT TYPES "C" AND TEST
25              ;                  CONTINUES.
26              ;
27              ; 11.148.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
28              ;                N/A
29              ;
30              ; 11.148.3       HINTS IF FAILURE OCCURS
31              ;                  CHECKS  CHECK LOVER ROVER AND DISABLE
32              ;                  SWITCHES & GATING ON WDT FRONT PANEL
33              ;                  CONTROL LOGIC.
34              ;
35              ;
36              ;*****************************************************************
37
38
39
40
41              ;*****************************************************************
42              ;
43              ; 11.149         TEST #                              NAME
44              ;                148                                 P5T2
45              ;
46              ; 11.149.1       OBJECTIVE OF THE TEST:
47              ;                  TURNS ON WDT AND WAITS FOR DONE
48              ;                  TO SET THEN PRINTS MSG TYPE C TO
49              ;                  CONTINUE.
50              ;
51              ; 11.149.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
52              ;                N/A
53              ;
54              ; 11.149.3       HINTS IF FAILURE OCCURS
55              ; 11.149.3.1       ONLY FAILURE CAN BE WDT DID NOT SET
56              ;                  DONE- RUN PREVIOUS TESTS.
57              ;
58              ;
59              ;*****************************************************************
60
```

```
 0080 .MAIN
01
02
03              ;*****************************************************************
04              ;
05              ; 11.150         TEST #                              NAME
06              ;                149                                 P5T3
07              ;
08              ; 11.150.1       OBJECTIVE OF THE TEST:
09              ;                  AFTER P5T2 SETS DONE AND DIS SWITCH
10              ;                  IS SET CHECK THAT DONE IS CLEARED
11              ;                  IF IT IS PRINT "PUT AUTO MANUAL
12              ;                  SWITCH IN AUTO". IF NOT PRINTS MSG
13              ;                  "SWITCH DID NOT DISABLE".
14              ;
15              ; 11.150.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
16              ;                N/A
17              ;
18              ; 11.150.3       HINTS IF FAILURE OCCURS
19              ; 11.150.3.1       CHECK WDIS TO WATCH DOG TIMER FLOPS.
20              ;
21              ;
22              ;*****************************************************************
23
```

```
!0081 .MAIN
01
02
03
04              ;*****************************************************************
05              ;
06              ;
07              ; 11.151         TEST #                          NAME
08              ;                150                             PST4
09              ;
10              ; 11.151.1       OBJECTIVE OF THE TEST:
11              ;                  CHECKS THE MAN DISABLES ERROR STATUS
12              ;                  FROM DATA/STATUS WDT WORD.
13              ;
14              ; 11.151.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
15              ;                  AC0= DIB RESULTS
16              ;                  AC1= STATUS/DATA WORD SWAPPED & SHIFTED.
17              ;                  MSG= "STATUS NOT DISABLE BY MAN" INDICATES
18              ;                  ERROR.
19              ;
20              ; 11.151.3       HINTS IF FAILURE OCCURS
21              ; 11.151.3.1       CHECK MAN FROM SWITCH TO DATA STATUS
22              ;                  GATING.
23              ;
24              ;
25              ;*****************************************************************
26
27
28
29
30              ;*****************************************************************
31              ;
32              ; 11.152         TEST #                          NAME
33              ;                151                             PST5
34              ;
35              ; 11.152.1       OBJECTIVE OF THE TEST:
36              ;                  CHECKS POWER FAIL.
37              ;
38              ; 11.152.2       CONTENTS OF DCU ACCS WHEN FAILURE OCCURS
39              ; 11.152.3       HINTS IF FAILURE OCCURS
40              ; 11.152.3.1       CHECK POWER FAIL FLOPS FOR WDT
41              ; 11.152.3.2       CHECK CPF TO STATUS.
42              ;
43              ;
44              ;*****************************************************************
45
46
47
48              ;*****************************************************************
49              ;
50              ; 11.153         TEST #                          NAME
51              ;                152                             177777
52              ;
53              ; 11.153.1       OBJECTIVE OF THE TEST:
54              ;                  DELIMITS END OF DIAG TESTS
55              ;
56              ;
57              ;
58              ;
59              ;*****************************************************************
```

```
!0082 .MAIN
01              ;12.0    SPECIAL FEATURES
02              ;        THE USER SHOULD READ HARDWARE SPEC AND INSTAL-
03              ;        LATION MANUAL BEFORE USING THE PROGRAM.
04              ;
05              ;13.0    RUN TIME
06              ;13.1    RUN TIME FOR PASSES IS DEPENDENT OF 3 ITEMS:
07              ;        1) MACHINE BEING RUN ON (NOVA/ECLIPSE)
08              ;        2) SETTING OF WDT CLOCK
09              ;        3) ITERATION COUNT
10              ;13.2    THE TIME TO GET TO PASS 1 WILL BE APPROX. 4.5
11              ;        MINUTES FOR THE SLOWEST WATCH DOG TIMER INTER-
12              ;        VAL (4 SEC.)
13              ;        THE TIME TO GET TO PASS 1 WILL BE APPROX .8
14              ;        MINUTES FOR THE FASTEST WATCH DOG TIMER INTER-
15              ;        VAL (32 MILLISEC)
16              ;        NOTE:  THESE TIMES ARE BASED ON A NOVA 1200
17              ;13.3    THE TIME FOR SUBSEQUENT PASSES WILL BE EQUAL TO
18              ;        THE ITERATION COUNT X THE PASS 1 TIME.  FOR
19              ;        EXAMPLE IF THE I.C.= 5 AND THE WDT IS SET TO THE
20              ;        FAST INTERVAL THEN THE TIME FOR PASS 2 ON WOULD
21              ;        BE 5 X .8 MINUTES = 4 MINUTES.

**00004 TOTAL ERRORS, 00000 PASS 1 ERRORS
```

0083 .MAIN

O?DTD 000000U 6/18
S?WPD 000000U 6/05