

TEXT LISTING

068-000448-02

PROGRAM

MICRO-NOVA I/O TESTER DIAGNOSTIC

TEXT TAPE

097-000448-02

ABSTRACT

THIS DIAGNOSTIC IS DESIGNED TO TEST THE MICRO-NOVA I/O TESTER BOARD, A SPECIAL PURPOSE I/O EXERCISER FOR THE MICRO\_NOVA DATA CHANNEL.

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; NAME: MNIOT.TX PART NUMBER: 097-000448

; DESCRIPTION: MICRO-NOVA I/O TESTER DIAGNOSTIC

; REVISION HISTORY:

REV.	DATE	
00	11/15/76	
01	06/24/77	
02	09/17/79	UPDATE DIRT BLOCK

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04          1.          .DO    0
05          ABSTRACT
06          THIS DIAGNOSTIC IS DESIGNED TO TEST THE MICRO-NOVA
07          I/O TESTER BOARD, A SPECIAL PURPOSE I/O EXERCISER FOR
08          THE MICRO-NOVA DATA CHANNEL.
09
10          2.          MACHINE REQUIREMENTS
11
12          2.1         A MICRO-NOVA PROCESSOR
13          2.2         4K OF READ/WRITE MEMORY
14          2.3         A MICRO-NOVA I/O TESTER BOARD
15          2.4         SOME MEANS OF REPORTING ERRORS
16
17          3.          OPERATING PROCEDURE
18
19          PROGRAM MAY BE LOADED VIA THE BINARY LOADER OR THE DTOS
20          SYSTEM AND WILL START AT LOCATION 200.  IF IT'S
21          DESIRED, "SWREG" OPTIONS MAY BE CHANGED AT
22          THIS TIME THROUGH THE HAND-HELD CONSOLE OR THE CONSOLE
23          DEBUG OPTION, OR AT ANY TIME THROUGH THE TTY SWITCH PAK.
24
25          4.          ERROR DESCRIPTION
26
27          THIS PROGRAM IS DESIGNED TO PROVIDE A SNAPSHOT OF ALL
28          REGISTER CONTENTS IF AN ERROR IS DETECTED.  THESE ARE
29          SAVED IN A MEMORY STACK AND, DEPENDING ON THE "SWREG"
30          OPTIONS, REPORTED TO THE USER VIA SOME LISTING OUTPUT
31          DEVICE.  A RUNNING COUNT OF ERRORS IS ALSO SAVED BY
32          THE PROGRAM, AND FACILITIES ARE PROVIDED FOR LOOPING
33          OR HALTING ON ERROR DETECTION.  IF THE PROGRAM HAS
34          HALTED ON ERROR, THE PC AND CARRY AND THE CONTENTS OF ALL
35          REGISTERS AT THE TIME OF THE ERROR HAVE BEEN SAVED ON
36          THE SYSTEM STACK.  THE LOCATION POINTED TO BY THE STACK
37          POINTER CONTAINS THE PC & CARRY, SP-1 IS AC3, SP-2 IS
38          AC2, SP-3 IS AC1, AND SP-4 IS AC0.  ADDITIONAL INFORMATION
39          IS AVAILABLE IN SEVERAL PAGE 0 LOCATIONS AS FOLLOWS:
40
41          LOCATION (OCTAL)      VARIABLE      INTERPRETATION
42
43          00201                  HEL?P      CURRENT SUBTEST START
44          00203                  PAS?S      TEST PASS COUNTER
45          00207                  INTV?      SUBTEST LOGOUT INTVL
46          00210                  ERC?T      TOTAL ERROR COUNT
47          00211                  ITR?R      SUBTEST ERROR SWITCH
48          00212                  TSN?M      CURRENT SUBTEST NUMBER
49          00213                  ERN?M      LATEST ERROR NUMBER
50
51          DETAILED ERROR MESSAGES PRINT OUT THE REGISTER
52          CONTENTS AT THE TIME OF THE FAILURE, AS WELL AS
53          IDENTIFYING THE SUBTEST AND ERROR NUMBER CAUSING
54          THE PROBLEM.  THE MESSAGE FORMAT IS:
55
56          ERROR NUMBER XXX ENCOUNTERED SUBTEST XX
57          CRY      AC0      AC1      AC2      AC3      PC
58          X      XXXXXX  XXXXXX  XXXXXX  XXXXXX  XXXXXX
59
60          THESE REGISTER CONTENTS SHOULD BE COMPARED TO THOSE

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01 DESIRED BY THE FAILING SUBTEST TO ISOLATE THE ERROR.  
 02  
 03

04 5. SWITCH SETTINGS  
 05

06 LOCATION "SWREG" IS USED TO SELECT THE PROGRAM OPTIONS  
 07 (NOT SYSTEM CONFIGURATION). WHILE RUNNING UNDER DTOS  
 08 THIS LOCATION WILL BE LOADED BY THE MONITOR,  
 09 HOWEVER UNDER STAND-ALONE AND PROGRAM LOAD MODES  
 10 THIS LOCATION MAY BE SET BY THE USER USING EITHER  
 11 THE HAND-HELD CONSOLE OR A TELETYPE WITH THE  
 12 CONSOLE DEBUG FEATURE, OR THE SWITCH PACKAGE.  
 13

14 5.1 SWITCH OPTIONS  
 15

16 DIFFERENT BITS AND THEIR INTERPRETATION AT LOCATION  
 17 "SWREG" ARE AS FOLLOWS:  
 18

19	BIT	OCTAL	BINARY	INTERPRETATION
20				
21	1		0	LOOP ON ERROR
22		40000	1	SKIP LOOPING ON ERROR
23	2		0	PRINT TO CONSOLE
24		20000	1	ABORT CONSOLE PRINTOUT
25	3		0	DO NOT PRINT % FAILURE
26		10000	1	PRINT % FAILURE RATE
27	4		0	ALLOW END OF PASS PRINT
28		04000	1	SUPPRESS PASS PRINTOUT
29	5		0	DON'T USE LINE PRINTER
30		02000	1	USE LINE PRINTER
31	6		0	DON'T HALT ON ERROR
32		01000	1	HALT ON ERROR
33	7		0	DON'T PRINT SUBTEST COMPLETION
34		00400	1	PRINT SUBTEST COMPLETION EACH INTVL AND ERROR SUMMARY REPORT WHEN FIRST SWITCHED ON.
35				
36				
37	8		0	PRINT DETAILED ERROR ONLY ONCE
38		00200	1	ALWAYS PRINT DETAILED ERROR MESSAGE
39	9-11			RESERVED FOR FUTURE DTOS USE
40	12-15			RESERVED FOR FUTURE USER OPTIONS

41  
 42  
 43 .ENDC  
 44 .EJECT

0004 MNIOT

\*\*00000 TOTAL ERRORS, 00000 FIRST PASS ERRORS