

**DataGeneral**

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**TECHNICAL  
STATEMENT**

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TEXT LISTING

068-000441-00

PROGRAM

MICRONOVA POWER FAIL DIAGNOSTIC

TEXT TAPE

097-000441-00

ABSTRACT

THIS DIAGNOSTIC IS DESIGNED TO CHECK THE AUTO-START OF  
MICRONOVA AFTER A POWER FAIL.

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MACRO REV 06.50  
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 12:29:29 02/14/79  
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 ? NAME: MNIOT.FX PART NUMBER: 097-000448  
 ? DESCRIPTION: MICRO-NOVA I/O TESTER DIAGNOSTIC  
 ? REVISION HISTORY  
 ? REV. DATE  
 ? 00 11/15/76  
 ? 01 06/24/77  
 ? COPYRIGHT © DATA GENERAL CORPORATION, 1976, 1977  
 ? ALL RIGHTS RESERVED.  
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 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.

MACHINE REQUIREMENTS

- 2.1 A MICRO-NOVA PROCESSOR
- 2.2 4K OF READ/WRITE MEMORY
- 2.3 A MICRO-NOVA I/O TESTER BOARD
- 2.4 SOME MEANS OF REPORTING ERRORS

OPERATING PROCEDURE

PROGRAM MAY BE LOADED VIA THE BINARY LOADER OR THE DTOS SYSTEM AND WILL START AT LOCATION 200. IF IT'S DESIRED, "SMREG" OPTIONS MAY BE CHANGED AT THIS TIME THROUGH THE HAND-HELD CONSOLE OR THE CONSOLE DEBUG OPTION, OR AT ANY TIME THROUGH THE TTY SWITCH PAK.

ERROR DESCRIPTION

THIS PROGRAM IS DESIGNED TO PROVIDE A SNAPSHOT OF ALL REGISTER CONTENTS IF AN ERROR IS DETECTED. THESE ARE SAVED IN A MEMORY STACK AND, DEPENDING ON THE "SMREG" OPTIONS, REPORTED TO THE USER VIA SOME LISTING OUTPUT DEVICE. A RUNNING COUNT OF ERRORS IS ALSO SAVED BY THE PROGRAM, AND FACILITIES ARE PROVIDED FOR LOOPING OR HALTING ON ERROR DETECTION. IF THE PROGRAM HAS HALTED ON ERROR, THE PC AND CARRY AND THE CONTENTS OF ALL REGISTERS AT THE TIME OF THE ERROR HAVE BEEN SAVED ON THE SYSTEM STACK. THE LOCATION POINTED TO BY THE STACK POINTER CONTAINS THE PC & CARRY, SP-1 IS AC3, SP-2 IS AC2, SP-3 IS AC1, AND SP-4 IS AC0. ADDITIONAL INFORMATION IS AVAILABLE IN SEVERAL PAGE 0 LOCATIONS AS FOLLOWS:

LOCATION (OCTAL)	VARIABLE	INTERPRETATION
00201	HEL?P	CURRENT SUBTEST START
00203	PAS?S	TEST PASS COUNTER
00207	INTV?	SUBTEST LOGOUT INTVL
00210	ERC?T	TOTAL ERROR COUNT
00211	ITR?N	SUBTEST ERROR SWITCH
00212	TSN?M	CURRENT SUBTEST NUMBER
00213	ERN?M	LATEST ERROR NUMBER

10003 MN101

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DETAILED ERROR MESSAGES PRINT OUT THE REGISTER CONTENTS AT THE TIME OF THE FAILURE, AS WELL AS IDENTIFYING THE SUBTEST AND ERROR NUMBER CAUSING THE PROBLEM. THE MESSAGE FORMAT IS:

ERROR NUMBER XXX ENCOUNTERED SUBTEST XX PC  
CRY ACU AC1 AC2 ACS  
X XXXXX XXXXX XXXXX XXXXX XXXXX

THESE REGISTER CONTENTS SHOULD BE COMPARED TO THOSE DESIRED BY THE FAILING SUBTEST TO ISOLATE THE ERROR.

5. SWITCH SETTINGS

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

5.1 SWITCH OPTIONS

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

BIT	OCTAL	BINARY	INTERPRETATION
1	40000	0	LOOP ON ERROR
2	20000	1	SKIP LOOPING ON ERROR
3	10000	0	PRINT TO CONSOLE
4	04000	1	ABORT CONSOLE PRINTOUT
5	02000	0	DO NOT PRINT % FAILURE
6	01000	1	PRINT % FAILURE RATE
7	00400	0	ALLOW END OF PASS PRINT
8	00200	1	SUPPRESS PASS PRINTOUT
9-11		0	DON'T USE LINE PRINTER
12-15		1	USE LINE PRINTER
		0	DON'T HALT ON ERROR
		1	HALT ON ERROR
		0	DON'T PRINT SUBTEST COMPLETION
		1	PRINT SUBTEST COMPLETION EACH INTV.
		0	AND ERROR SUMMARY REPORT WHEN FIRST SWITCHED ON.
		1	PRINT DETAILED ERROR ONLY ONCE
		0	ALWAYS PRINT DETAILED ERROR MESSAGE
		1	RESERVED FOR FUTURE DTOS USE
		0	RESERVED FOR FUTURE USER OPTIONS

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\*\*00000 TOTAL ERRORS, 00000 PASS 1 ERRORS