

DataGeneral

**TECHNICAL
STATEMENT**

TEXT LISTING

068-000538-01

PROGRAM

MICRO-NOVA READER/PUNCH/CLOCK
DIAGNOSTIC

TEXT TAPE

097-000538-01

ABSTRACT

THIS DIAGNOSTIC IS DESIGNED TO PROVIDE AN OPERATIONAL TEST OF THE PAPER TAPE READER/PUNCH SYSTEM ON A MICRO-NOVA. THIS MAY CONSIST OF THE READER/PUNCH SECTION OF AN ASR TELETYPE OR A HIGH SPEED PAPER TAPE READER AND PUNCH, OR ANY COMBINATION THEREOF.

10002 MWRPL

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01 MALKU REV 08.30 09:47:07 05/16/79
02 *****
03 ? NAME: MWRPC, TX PART NUMBER: 097-000536 *****
04 ?
05 ? DESCRIPTION: MICRO-NUVA READER/PUNCH/CLOCK DIAGNOSTIC
06 ?
07 ? REVISION HISTORY
08 ?
09 ? REV. DATE
10 ?
11 ? 00 06/24/77
12 ? 01 01/05/79
13 ?
14 ? DLIB UPDATE & MODIFIED
15 ? FOR MSDCH
16 ?
17 ? COPYRIGHT © DATA GENERAL CORPORATION, 1977, 1979
18 ? ALL RIGHTS RESERVED *****
19 ? *****

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.L11L MWRPC

MACHINE REQUIREMENTS

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? 1.
? 1.1 A MICRO NUVA PROCESSOR
? 1.2 2K OF READ/WRITE MEMORY
? 1.3 A MICRO NUVA ASYNCHRONOUS INTERFACE BOARD
? 1.4 OR PAPER TAPE READER/CLOCK INTERFACE.
? 1.5 OR A PRE-PUNCHED DATA TAPE AND A HIGH SPEED
? READER AND/OR A REAL TIME CLOCK.
? INTERRUPT PRIORITY REQUIRED WITH EXTERNAL RTC.
? BOARD MUST BE IN SLOT 2 WITH NO HIGH SPEED
? DATA CHANNEL OR SLOT 3 WITH AND 835 MUST BE
? WIRED TO SUNZ PIN ON BACK-PLANE.

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ERROR DESCRIPTION

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? 1. THIS PROGRAM IS DESIGNED TO PROVIDE A SHAPSHUT
? OF ALL REGISTER CONTENTS IF AN ERROR IS
? DETECTED. THESE ARE SAVED IN A MEMORY STACK AND,
? DEPENDING ON THE "SWREG" 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.
? 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:

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ERROR NUMBER XXX ENCOUNTERED SUBTEST XX
CRY AC0 AC1 AC2 AC3 PC
X XXXXXX XXXXXX XXXXXX XXXXXX XXXXXX XXXXXX

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

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SWITCH SETTINGS

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? LOCATION "SWREG" IS USED TO SELECT THE PROGRAM
? (NOT SYSTEM CONFIGURATION). WHILE RUNNING
? UNDER DTOS, THIS LOCATION WILL BE LOADED BY
? THE MONITOR.
? HOWEVER UNDER STAND ALONE AND PROGRAM LOAD MODES
? THIS LOCATION WILL BE SET ACCORDING TO THE
? ANSWERS SUPPLIED BY THE OPERATOR.

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3.1 SWITCH OPTIONS
DIFFERENT BITS AND THEIR INTERPRETATION AT
LOCATION "SWREG" IS AS FOLLOWS:

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BIT OCTAL BINARY INTERPRETATION
VALUE VALUE

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? 14 00002 0 CONTINUE TO NEXT TEST
? 15 00002 1 LOOP ON ALL DATA PATTERNS
? 16 00002 0 CONTINUE TO NEXT DATA

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0003 MNRPC
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00001 1 PATTERN
 LOOP ON THIS DATA PATTERN

3.2
 SWITCH COMMANDS
 ONCE THE PROGRAM STARTS EXECUTING THE STATE OF
 ANY OF THE BITS CAN BE CHANGED BY HITTING KEYS
 1 THROUGH 9 AND A THROUGH F (FOR BITS 10
 THROUGH 15). THE PROGRAM WILL CONTINUE
 RUNNING AFTER UPDATING THE OPTIONS.
 EACH KEY WILL COMPLEMENT THE STATE OF THE BIT
 AFFILIATED WITH IT, THUS BIT 4 CAN BE ALTERED BY
 HITTING KEY 4. SETTING OF ANY BIT OR LOCATION
 "SWREG" WILL SET BIT 0. (DEFAULT MODE IS DEFINED
 AS ALL BITS OF SWREG SET TO 0) THE PROGRAM CAN
 BE LOCKED INTO SWITCH MODIFICATION MODE BY
 TYPING A 0, IN WHICH CASE MORE THAN ONE BITS CAN
 BE CHANGED BEFORE THE CONTROL IS ALLOWED TO
 RETURN TO THE MAIN PROGRAM.

3.2.1 OTHER COMMANDS

7 PRINT THE SUMMARY OF ERRORS
 ACCUMULATED SO FAR.

M THIS COMMAND GIVEN AT ANY TIME
 WILL PRINT THE CURRENT OPERATING
 MODES.

4. USER REGISTER CONFIGURATION

THIS DIAGNOSTIC USES BIT 0 OF THE USER REGISTER TO
 OVERRIDE THE SWITCH REGISTER OPTIONS. BITS 1-7
 HAVE NORMAL "SWREG" SIGNIFICANCE.

**00000 TOTAL ERRORS, 00000 PASS 1 ERRORS