

**DataGeneral**

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**TECHNICAL  
STATEMENT**

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TEXT LISTING

068-001114-01

PROGRAM

DASHER LP2 RELIABILITY PROGRAM

TEXT TAPE

097-001114-01

ABSTRACT

LP2RELI IS A RELIABILITY TEST TO EXERCISE THE DASHER LP2 LINE PRINTER. SPECIAL TESTS ARE PROVIDED FOR BURN-IN (TEST 21) WHICH PRINTS 9 PAGES IN 8 HOURS, AND A TEST (TEST 20) WHICH ALLOWS THE OPERATOR TO ENTER ANY MESSAGE TO BE PRINTED ON THE LP2 AND LOOPS ON THAT MESSAGE UNTIL A RUBOUT IS TYPED ON THE CONSOLE.

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: NAME: LP2REL.TX          PART NUMBER: 097-001114
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: DESCRIPTION: DASHER LP2 RELIABILITY PROGRAM
:
: REVISION HISTORY:
:
: REV.          DATE
: 00          09/01/78
: 01          04/23/79
:
: COPYRIGHT © DATA GENERAL CORPORATION, 1978, 1979
: ALL RIGHTS RESERVED.
: LICENSED MATERIAL-PROPERTY OF DATA GENERAL CORPORATION.
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.TITL LP2REL
PROGRAM NAME
LP2REL.SR
REVISION HISTORY
REV 00 09/01/78
REV 01 02/21/79
MACHINE REQUIREMENTS
NOVA, MNOVA, OR ECLIPSE
PARALLEL INTERFACE BOARD
4K MEMORY
SUMMARY
LP2REL IS A RELIABILITY TO EXERCISE THE
LP2 OPERATION AND OPTIONS. SPECIAL TESTS
ARE PROVIDED FOR BURN-IN (TEST 21) WHICH PRINTS
9 PAGES IN 8 HOURS. TEST 20 IS PROVIDED
TO ALLOW THE OPERATOR TO ENTER ANY MESSAGE
TO BE PRINTED ON THE LP2 AND LOOPS ON THAT
MESSAGE UNTIL A RUBOUT IS TYPED ON THE
CONSOLE.
RESTRICTIONS
NONE
PROGRAM DESCRIPTION/THEORY OF OPERATION
PROGRAM START ADDRESS
PROGRAM STARTS AT ADDRESS 200
OPERATOR INPUT
(GUEST 1) ENTER INPUT DEVICE CODE, IF KEYBOARD PRESENT
ANSWER FIRST QUESTION WITH A CARRIAGE RETURN
IF NO KEYBOARD PRESENT OR DEVICE CODE AND CARRIAGE
RETURN IF KEYBOARD IS PRESENT.
(GUEST 2) ENTER OUTPUT DEVICE CODE
ANSWER SECOND QUESTION WITH DEVICE CODE OF
INTERFACE AND A CARRIAGE RETURN IF SYSTEM
IS NOT A CS40 OR CS60. IF SYSTEM IS A
CS40 OR CS60 WITH PARALLEL INTERFACE, THEN
ENTER DEVICE CODE "C". EXAMPLE 17C.
IF THE OUTPUT DEVICE CODE IS 34 (ALM) OR 44 (ULM)
THE FOLLOWING SERIES OF QUESTIONS MUST BE ANSWERED:
ENTER ALM/ULM LINE NUMBER?
[0-16 FOR ALM, 0-8 FOR ULM] <CR>
ENTER ALM/ULM LINE CHARACTERISTICS:
[LOCK IS 0-3 FOR ALM, 1-17 FOR ULM (BAUD RATE)] <CR>
[STOP BITS ARE 1 OR 2] <CR>
[CODE LEVEL (DATA BITS) ARE 5-8] <CR>
[PARITY IS 0 (NONE), 1 (ODD), OR 2 (EVEN)] <CR>

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NOTE:
NORMAL LP2 OPERATION WILL BE 1 STOP AND 8 DATA BITS

6.3
LP2 TESTS
TEST 1 -
VERIFIES THAT AN INTERRUPT IS GENERATED
WHEN A CHARACTER IS SENT TO THE
LP2 PRINTER. (THIS IS THE ONLY TEST
WHICH CAN DETECT AN ERROR. THE CONTENTS
OF THE AC'S HAVE NO MEANINGS, THE MESSAGE
JUST MEANS THE INTERRUPT DID NOT OCCUR)
* * * THIS TEST RUNS ONLY ON PASS 1 * * *

TEST 2 -
PRINTS ALTERNATE LINE OF REGULAR AND ELONGATED
"E'S".

TEST 3 -
PRINTS 1 - 132 "M'S" IN THE SHAPE OF A
RIGHT TRIANGLE.

TEST 4 -
PRINTS A ROTATING ALPHA PATTERN IN:
1ST REGULAR PRINT
2ND COMPRESSED PRINT
3RD COMPRESSED ELONGATED PRINT
4TH REGULAR ELONGATED PRINT.

TEST 5 -
TEST THE ESCAPE 1 COMMAND
* * * THIS TEST DOES NOT RUN WITH * * *
* * * DATA CHANNEL LINE PRINTER BOARD * * *

TEST 6 -
TESTS THE DOWN LINE LOAD CHARACTER SET
OPTION
* * * THIS TEST DOES NOT RUN ON DATA * * *
* * * CHANNEL BOARD, OR CS40 AND CS60 * * *
* * * WITH PARALLEL INTERFACE. * * *

TEST 7 -
TESTS THE VERTICAL TABS
* * * THIS TEST DOES NOT RUN ON DATA * * *
* * * CHANNEL BOARD. * * *

TEST 10 -
TEST ESC 2 CODE CLEARS HORIZONTAL
TABS.
* * * DOES NOT RUN ON DATA CHANNEL BOARD. * * *

TEST 11 -
TEST SETTING AND CLEARING VERT TABS
USING ESC 5 AND 6

TEST 12 -
TEST UNDERSCORE WITH ALL PRINT
TYPES.

TEST 13 -
TESTS PLOTTING MODE

TEST 14 -
TESTS HORIZONTAL TABS
* * * DOES NOT RUN ON CS40 OR CS60. * * *

TEST 15 -
TESTS PRINT DIRECTION ANALIZATION

TEST 16 -
TESTS ALTERNATE CHARACTER SET OPTION

TEST 17 -
IF KEYBOARD DEVICE CODE ENTERED
IN START UP QUESTION THEN THIS

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THIS TEST WILL RUN.
STRIKING A KEY ON THE KEYBOARD
CAUSES THE OCTAL VALUE TO BE PRINTED
ON THE HOST TERMINAL.

TO EXIT THIS TEST TWO PERIODS MUST
BE TYPED (CONSECUTIVE) ON THE KEY-
BOARD UNDER TEST.
* * * THIS TEST RUNS FIRST PASS ONLY * * *
* * * OR IF SELECTED TO BE LOOPED ON * * *

TEST 20 -
ALLOWS OPERATOR TO ENTER WHAT
IS TO BE PRINTED (DOES NOT RUN
UNLESS SELECTED) THE TEST WILL
START PRINTING ON THE LP2 AFTER
A CNTL Z IS TYPED.

TEST 21 -
BURN IN TEST (DOES NOT RUN UNLESS
SELECTED).

OPERATING MODES/SWITCH SETTINGS

SPECIAL SWITCH
BIT 15 OF SOFTWARE SWITCH REGISTER (SWITCH F)
ALLOWS THE OPERATOR TO SELECT A TEST TO
BE LOOPED ON. AFTER THE F IS ECHOED ON
THE CONSOLE THE QUESTION "ENTER TEST #" IS
PRINTED, THE RESPONSE SHOULD BE THE NUMBER
OF THE TEST TO BE RUN.
TO TERMINATE RUNNING OF THE TEST TYPE
ANOTHER "F" AND WAIT FOR REGULAR TEST TO
START RUNNING BEFORE TRYING TO SELECT
ANOTHER TEST

SWITCH SETTINGS
LOCATION "SMREG" IS USED TO SELECT THE PROGRAM OPTIONS
(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. IN ANY CASE THE OPTIONS CAN BE CHANGED
OR VERIFIED BY USING ONE OF THE COMMANDS GIVEN IN SEC.
8.2

SWITCH OPTIONS
DIFFERENT BITS AND THEIR INTERPRETATION AT LOCATION
"SMREG" IS AS FOLLOWS:
BIT OCTAL BINARY INERPRETATION
VALUE VALUE
1 40000 0 LOOP ON ERROR
2 0 1 SKIP LOOPING ON ERROR
0 0 0 PRINT TO CONSOLE

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20000 1 ABORT PRINT OUT TO CONSOLE  
 3 DO NOT PRINT % FAILURE  
 PRINT % FAILURE  
 4 10000 1  
 4 04000 0 ALLOW END OF PASS PRINT OUT  
 SUPPRESS END OF PASS PRINT OUT  
 5 02000 1 DO NOT PRINT ON THE LINE PRINTER  
 PRINT ON THE LINE PRINTER  
 6 0 0 DO NOT HALT ON ERROR  
 HALT ON ERROR  
 7 0 01000 1 DO NOT PRINT SUMMARY AND/OR  
 PASSING OF EACH SUBTEST  
 PRINT SUMMARY AND/OR  
 8 00400 1 PASSING OF EACH SUBTEST  
 PRINT ONLY THE FIRST ERROR  
 0 00200 1 PRINT EVERY ERROR

```

;8.2 SWITCH COMMANDS
; ONCE THE PROGRAM STARTS EXECUTING THE STATE OF ANY OF
; THE BITS CAN BE CHANGED BY HITTING KEYS 1-9, A-F. THE
; PROGRAM WILL CONTINUE RUNNING AFTER UPDATING THE OPTIONS.
; EACH KEY WILL COMPLETE THE STATE OF THE BIT AFFILIAT-
; ED WITH IT, THUS BIT 4 CAN BE ALTERED BY HITTING KEY 4.
; SETTING OF ANY BIT OF 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 BIT CAN BE
; CHANGED BEFORE CONTROL IS ALLOWED TO RETURN TO THE
; MAIN PROGRAM.
;8.2.1 OTHER COMMANDS
; "CR" A "RETURN" CAN BE TYPED TO CONTINUE THE PROGRAM
; AFTER ITS LOCKED IN A SWITCH MODIFICATION MODE
; "D THIS COMMAND GIVEN AT ANY TIME WILL RESET "SWREG"
; TO DEFAULT MODE AND RESTART THE PROGRAM.
; "R THIS COMMAND GIVEN AT ANY TIME WILL RESTART THE
; PROGRAM. SWITCHES ARE LEFT WITH THE VALUES THEY
; HAD BEFORE THE COMMAND WAS ISSUED.
; "O THIS COMMAND GIVEN AT ANY TIME WILL CAUSE THE
; PROGRAM CONTROL TO GO TO 00T (NOTE: THIS IS AN
; OPTIONAL COMMAND AND IS AVAILBLE ONLY IF
; OOTPK IS PRESENT)
; M THIS COMMAND GIVEN AT ANY TIME WILL PRINT THE
; CURRENT OPERATING MODES.
;
; ERROR MESSAGES
; THERE IS ONLY 1 ERROR MESSAGE INDICATING
; THAT THE LP2 IS NOT INTERRUPTING AFTER IT

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0006 .MAIN  
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 .EOT

HAS RECEIVED A CHARACTER.  
 THE CONTENTS OF THE AC'S HAVE NO  
 MEANING  
 NOTE - IF THIS ERROR OCCURS CHECK THE  
 PRIORITY CHAIN TO MAKE SURE THE  
 INTERRUPT REQUEST CAN MAKE IT  
 TO THE PROCESSOR

0007 .MAIN

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

0008 .MAIN

S7WPD 001044 MC 4/36