

IDENTIFICATION

PRODUCT CODE: AC-6527D-WA
PRODUCT NAME: AIKLAD0 KL8-J/K LOOP PACK TST
PRODUCT DATE: JANUARY 1979
MAINTAINER: DIAGNOSTIC GROUP
AUTHORS: BRUCE HANSEN, R. MOORE, DON RICE,
AND HEATHER CZIRIA

THE INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT CORPORATION. DIGITAL EQUIPMENT ASSUMES NO RESPONSIBILITY FOR ANY ERRORS THAT MAY APPEAR IN THIS MANUAL.

THE SOFTWARE DESCRIBED IN THIS DOCUMENT IS FURNISHED TO THE PURCHASER UNDER A LICENSE FOR USE ON A SINGLE COMPUTER SYSTEM AND CAN BE COPIED (WITH INCLUSION OF DIGITAL'S COPYRIGHT NOTICE) ONLY FOR USE IN SUCH SYSTEM, EXCEPT AS MAY OTHERWISE BE PROVIDED IN WRITING BY DIGITAL.

DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS SOFTWARE ON EQUIPMENT NOT SUPPLIED BY DIGITAL.

COPYRIGHT (C) 1973 - 1979, DIGITAL EQUIPMENT CORP., MAYNARD, MASS.

TABLE OF CONTENTS

1.0	ABSTRACT
2.0	REQUIREMENTS
2.1	HARDWARE
2.2	STORAGE
2.3	PREREQUISITE SOFTWARE
3.0	LOADING PROCEDURE
3.1	METHOD
4.0	STANDARD TEST PROCEDURE
4.1	CONNECTIONS FOR TESTING
4.1.1	EIA LOOP BACK CONNECTIONS
4.1.2	20MA LOOP BACK CONNECTIONS
4.2	RUN CONTROL/DATA TEST
4.2.1	TELETYPE INTERROGATION
4.3	RESTARTING THE PROGRAM
4.4	BAUD RATE TIMING TEST
5.0	OPERATING PROCEDURES
5.1	STARTING ADDRESSES
5.2	SWITCH REGISTER CONTROL
6.0	PROGRAM AND/OR OPERATOR ACTION
6.1	NORMAL HALTS
7.0	ERRORS
7.1	CONTROL/DATA TEST ERRORS
7.1.1	CONTROL/DATA TEST ERROR RECOVERY
7.2	BAUD RATE TIMING TEST ERRORS
7.2.1	BAUD RATE TIMING TEST ERROR RECOVERY
8.0	PROGRAM DESCRIPTION
8.1	CONTROL/DATA TEST
8.2	BAUD RATE TIMING TEST
9.0	APT-8 INTERFACE DEFINITION.
9.1	DESCRIPTION
9.2	SETUP
9.3	APT-8 INTERFACES
9.3.1	TIMING
9.3.2	ERRORS
9.4	LOADING PRECAUTIONS
9.5	MULTIPLE OPTIONS CONTROLLER
10.0	CONSOLE TERMINAL PACKAGE
10.1	ABSTRACT
10.2	INITIALIZATION
10.3	CONTROL G
10.4	CONTROL S
10.5	CONTROL Q
10.6	CONTROL C
10.7	ERROR REPORTING
10.8	END OF PASS
11.0	LISTING

- 1.0 ABSTRACT

KL8-JA & KL8-KA/KB/KC/KD LOOP BACK TEST IS A PROGRAM TO CHECK OUT THE TERMINAL CONTROL/DATA INTERFACE OPTION (M8655). THE BOARD IS TESTED IN LOOP BACK MODE BY CONNECTING EITHER FIA OUTPUT TO EIA INPUT OR CONNECTING 20 MA CURRENT OUTPUT TO 20 MA CURRENT INPUT.
- 2.0 REQUIREMENTS
------ 2.1 HARDWARE

PDP-8, 81, 8L WITH A DW8E-P OR DW8E-N BUS CONVERTER
PDP-8E, F OR M
KL8-JA TERMINAL CONTROL/DATA INTERFACE (M8655 9 BAUDS RATES) OR A
KL8-KA (SAME AS THE KL8-JA) OR A
KL8-KB TERMINAL CONTROL/DATA INTERFACE (M8655-YA 1050 BAUD) OR A
KL8-KC TERMINAL CONTROL/DATA INTERFACE (M8655-YB 46.7 BAUD) OR A
KL8-KD TERMINAL CONTROL/DATA INTERFACE (M8655-YC 56.8 BAUD)
- 2.2 STORAGE

THE PROGRAM OCCUPIES MEMORY LOCATIONS 0000 TO 5637 OF FIELD 0
AND 6600 TO 7377 OF FIELD 1.
- 2.3 PREREQUISITE SOFTWARE

THE SYSTEM MUST BE CAPABLE OF RUNNING ALL BASIC PROCESSOR DIAGNOSTICS.
- 3.0 LOADING PROCEDURE

METHOD

THE PROGRAM IS LOADED USING THE STANDARD BINARY LOADER TECHNIQUE,
AND THE PROGRAM MUST RESIDE IN FIELD 0.

4.0 STANDARD TEST PROCEDURE

4.1 CONNECTIONS FOR TESTING

4.1.1 EIA LOOP BACK CONNECTIONS

CONNECT PIN F TO PIN J AND PIN E TO PIN M ON THE BERG CONNECTOR

4.1.2 20MA LOOP BACK CONNECTIONS

CONNECT PIN E TO PIN H, PIN K TO PIN KK, AND PIN S TO PIN AA ON THE BERG CONNECTOR

//////////
/ WARNING: 20MA LOOP CONNECTIONS CAN ONLY BE CONNECTED /
/ THIS WAY FOR TESTING IN LOOP BACK MODE. DO NOT ATTEMPT /
/ TO CONNECT 2 M8655'S TOGETHER AT ANY TIME WITH 20MA LOOPS /
//////////

4.2 RUN CONTROL/DATA TEST

A. DO EITHER STEP 4.1.1 OR 4.1.2 FOR EIA OR 20MA LOOP BACK CONNECTIONS

B. THE PROGRAM WHEN FIRST LOADED IS INITIALIZED FOR 110 BAUD, 2 STOP BITS, 8 DATA BITS, RECEIVE IOT OF 03 AND A TRANSMIT IOT OF 04. IF THIS IS THE CONFIGURATION DESIRED GO TO PARAGRAPH 4.3 (RESTARTING THE PROGRAM) OTHERWISE GO TO STEP C

C. THE PROGRAM CAN BE INITIALIZED EITHER OF TWO WAYS:

1. BY WAY OF THE SWITCH REGISTER OR
2. BY WAY OF AN OPTIONAL TELETYPE WITH DEVICE CODE OF 03 AND 04. THESE DEVICE CODES CANNOT BE CHANGED.

D. SET SWITCH REGISTER TO 0200 AND PRESS "LOAD ADDRESS".

E. SET SR11=0 FOR INITIALIZING THE PROGRAM WITH THE SR OR SET SR11=1 FOR INITIALIZING THE PROGRAM WITH THE TELETYPE AND PRESS "CLEAR" AND THEN "CONTINUE".

F. IF SR11=0 GO TO G. IF SR11=1 GO TO 4.2.1 FOR TELETYPE INTERROGATION.