

DIGITAL SOFTWARE NEWS

FOR THE

PDP-8 & PDP-12

Software Information Service
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DIGITAL SOFTWARE NEWS

FOR THE PDP-8 AND THE PDP-12

Digital Software News for the PDP-8 & PDP-12 is designed to provide users of PDP-8 and PDP-12 software with up to date information on software problems, programming notes, and new and revised software. Each article, other than announcements and documentation corrections, is coded sequentially by system program in the lower right corner for ease in maintaining a quick reference file. The original material for such a file is supplied in the Software Performance Summary for the PDP-8 & PDP-12. This publication which is placed in each basic software kit, is a collection of all current information on known software problems, patches, and programming notes. As new versions correct software problems and obsolete patches, and reprinted manuals include programming notes and manual corrections, new articles in the Digital Software News will announce the revised software and specify by code which article should be removed from your Software Performance Summary file. Articles may also be replaced when new information becomes available; such as, procedure to circumvent a problem may replace the original report of the problem. All articles in the Digital Software News which should be added to your file will be appropriately coded.

Any questions or problems on the articles contained in these publications or concerning the use of Digital's software should be reported to the Software Specialist or Sales Engineer at your nearest Digital Office.

Additional copies of the current Software Performance Summary and updated issues of the PDP-8 and PDP-12 software price lists are available at no charge upon request from the Program Library. As with usual orders for software, the Program Library will accept orders received directly from U.S. customers. All other customer orders must be routed through the nearest Digital Representative.

PDP-8/12 DIGITAL SOFTWARE NEWS

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TABLE OF CONTENTS

<u>NEW AND REVISED SOFTWARE</u>	1-6
<u>SOFTWARE PROBLEMS</u>	
PDP-8 KE8E EAE INSTRUCTION TEST 1, MAINDEC-8E-DOLA, Patch	MAINDEC 1
PDP-8 KE8E (EAE) INSTRUCTION TEST 1, MAINDEC-8E-DOLA, Patch	MAINDEC 2
PDP-8E TELETYPE AND KL8 ASYNCHRONOUS DATA CONTROL TESTS, MAINDEC-8E-D2AB Patch	MAINDEC 3

NEW AND REVISED SOFTWARE PDP-8/12

The prices below apply to U.S. customers only. All others should consult their DEC field office for applicable charges and for placing their order.

MAINDEC-8E-D6BB

AD8E A-D CONVERTER DIAGNOSTIC

This revision corrects the problem of incorrect tags in system tests.

This correction involves changing location 2704 from 5245 to 5247.

Customers may order this software for the applicable fee:

Document	MAINDEC-8E-D6BB-D	\$5.00
Paper tape	MAINDEC-8E-D6BB-PB	\$5.00

MAINDEC-8I-D2AC

LE8/LPO8 LINE PRINTER TESTS

This revision corrects the problem with KF12B IOT set in the PERCLR routine.

The correction is as follows:

Place 7000 (NOP) in the following locations:

3105
3106
3110
3112
3113
3114
3116

Customers may order this software for the applicable fee.

Document	MAINDEC-8I-D2AC-D	\$10.00
Paper Tape	MAINDEC-8I-D2AC-PB	\$ 5.00

NEW AND REVISED SOFTWARE PDP-8/12 (Continued)

MAINDEC-Ø8-D8YC-D

UDC8 SYSTEM FUNCTION EXERCISER

This revision is now available from the Program Library. It can be used with PDP-8, 8I, 8E, 8L and PDP-12 with KF-12.

Running the "GOC" subroutine caused program wipeout in system configurations containing a PDP-12 with KF-12 and UDC8.

The correction entails NOPing the following locations:

2236
2237
2240
2241

Customers may order this software for the applicable fee:

Document	MAINDEC-Ø8-D8YC-D	\$7.00
Paper Tape	MAINDEC-Ø8-D8YC-PB	\$5.00

MAINDEC-8E-D6AB

XY8-E Plotter Control and Display Test

This diagnostic for XY8-E Plotter Control, Calcomp Plotters 5XX, 6XX, 7XX and Houston DP1Ø/EDP1Ø has been revised to correct the documentation. Large round off errors for the Ø.lmm increment size constants resulted in incorrect pattern display.

NEW AND REVISED SOFTWARE PDP-8/12 (Continued)

MAINDEC-8E-D6AB

XY8-E Plotter Control and Display Test

The correction is as follows:

To run the display test on a 0.1mm increment size plotter, specify to the program interrogation that the increment size is .005 inch. As a result, the patterns displayed will be smaller than indicated in the document, but their symmetry will be correct.

Customers may order this revised software for the applicable fee:

Document	MAINDEC-8E-D6AB-D	\$10.00
Paper Tape	MAINDEC-8E-D6AB-PB	\$ 5.00

MAINDEC-8E-D8AB

DK8E CLOCKS DIAGNOSTIC

This revision now supports the following options:

DK8-EA, DK8-EC
DK8-EP, and
DK8-ES REAL TIME CLOCKS

Customers may order this software for the applicable fee:

Document	MAINDEC-8E-D8AB-D	\$8.00
Paper Tape	MAINDEC-8E-D8AB-PB	\$5.00

NEW AND REVISED SOFTWARE-PDP-8/12 (Continued)

8E ADDER TESTS

MAINDEC-8E-DOCC

This revision replaces Maindec-8E-DOCB. The 8E Adder Tests were modified to relocate and run in extended memory banks.

Customers may order this software for the applicable fee:

Paper Tape Binary	MAINDEC-8E-DOCC-PB	\$7.00
Document	MAINDEC-8E-DOCC-D	5.00

Interprocessor Buffer Test

MAINDEC-8E-DOPB

This program was rewritten to incorporate hardware changes by adding a new IOT and a flip-flop and a new IOT DBCD 65x7 clear done F/F. In addition, a DBTF skip if done flag was set to a 1.

Customers may order this software for the applicable fee:

Paper Tape Binary	MAINDEC-8E-DOPB-PB	\$5.00
Document	MAINDEC-8E-DOPB-D	5.00

TC01 BASIC EXERCISER

MAINDEC-08-D3BD

This revision corrected the following problems:

1. The Program did not check function register bit 3 of status register A correctly.
2. The Program did not check XSTA delay signal in control correctly.
3. The program did not read go bit correctly in status register A.

NEW AND REVISED SOFTWARE PDP-8/12 (Continued)

TC01 BASIC EXERCISER (Continued)

MAINDEC-08-D3BD

The corrections are as follows:

1. A static register test was added to completely check bits 0-3 and 5-9 of status register A and bits 6-8 of status register B.
2. Portions of the test were modified to check the XSTA delay.
3. Portions of the test were modified to check go bit in status register A.

Customers may order this software for the applicable fee:

Document	MAINDEC-08-D3BD-D	\$7.00
Paper Tape Binary	MAINDEC-08-D3BD-PB	5.00

MAINDEC-12-D8GE

OPTIONAL DIAGNOSTIC LINC TAPE

This revision added a new diagnostic to the existing PDP-12 optional system diagnostic tape,

The diagnostic that was added was:

PDP-12 system exerciser
MAINDEC-12-D7CA

Customers may order this software for the applicable fee.

Linc Tape	MAINDEC-12-D8GE-UØ	\$35.00
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This is the only media on which this tape can be purchased.

NEW AND REVISED SOFTWARE-PDP-8/12 (Continued)

DB8-E INTERPROCESSOR BUFFER TEST

MAINDEC-8E- DØSA

Since there are two different etch revisions of DB8-E's as of ECO M8326-0003, there will be two Maindec programs to checkout this option.

Use Maindec-8E-DOPC to checkout the Interprocessor Buffer for a DB8-E (M8326) etch revision D or below.

Use Maindec-8E-DOSA to checkout the Interprocessor Buffer for a DB8-E (M8326) etch revision E or above.

Customers may order this software for the applicable fee:

Paper Tape Binary	MAINDEC-8E-DØSA-PB	\$5.00
Document	MAINDEC-8E-DØSA-D	\$5.00

DK8E CLOCKS DIAGNOSTIC

MAINDEC-8E-D8AC

Documentation improvements were made to clarify the setup procedure and the frequency of the DK8-EA Clock Option; and the setup procedure for DK8-EP and DK8-ES Clock Option.

In addition, because the diagnostic did not print the correct frequency of the DK8-EA Clock Option, the following change has been incorporated into this program:

<u>LOCATION</u>	<u>FROM</u>	<u>TO</u>
5465	0050	0100
5466	0060	0120

Customers may order this software for the applicable fee:

Document	MAINDEC-8E-D8AC-D	\$8.00
Paper Tape Binary	MAINDEC-8E-D8AC-PB	\$5.00

KE8E EAE INSTRUCTION TEST 1, MAINDEC-8E-DOLA

Patch

The problem is the Maindec does not check that normalize in "B" mode will clear the AC, if AC=4000 and MQ=0000 prior to issuing a normalize.

The way to correct the problem is to toggle the following changes into memory after loading the program:

<u>LOCATION</u>	<u>FROM</u>	<u>TO:</u>	
4741	7447	5360	/GO to Patch
4760		7431	/"B" Mode
4761		7621	/AC and MQ=0
1762		7330	/AC=4000;MQ=0000
4763		7411	/ Normalize
4764		7440	/ AC should be 0
4765		7402	/ Normalize failed to clear AC
4766		7447	/"A" Mode
4767		5342	/ Exit

KE-8E (EAE) INSTRUCTION TEST 1 MAINDEC-8E-DOLA
PATCH

The problem is the "TO BE ADDED" printout that occurs on a "DAD" failure, always indicates zero is being added to the AC and MQ.

The way to correct the problem is to toggle the following changes into memory after loading the program:

<u>LOCATION</u>	<u>FROM</u>	<u>TO</u>
7236	1023	1037
7241	1024	1040

PDP-8E-TELETYPE AND KL8 ASYNCHRONOUS DATA CONTROL TESTS

MAINDEC-8E-D2AB, Patch

The problem is this program cannot test a KL8 jumpered for 2400 Baud transmit and receive.

The patch which can correct this problem is as follows:

1. Toggle into memory the following changes after loading the program:

LOCATION:	FROM:	TO:
0141	7754	7767
0204	4776	5776
0504	N/A	4777
0505	N/A	7630
0506	N/A	7500
0507	N/A	7200
0510	N/A	6600
0511	N/A	5400
0512	N/A	7670
1574	7773	7772
2626	7636	7637

2. Remove G field jumpers and connect G9 and G10 if they exist.
3. If G9 and G10 do not exist, connect E 5 pin 11 to split lug G1 by means of a clip lead and IC clip.
4. Deposit 2400 in location 22. (program can still operate at previous baud rates.)
5. Run program's 0 and 1. Test board at 150/150 2400/2400.

