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FIELD CHANGE ORDER

Number: DMB32-F001-DAS

Applicability: (1) Upgrade all DMB32's (T1012) for systems exhibiting System/Process Page Table Entry Access Violations. (2) Upgrade the DMB32 (T1012) for those systems using the LP29 (2000 LPM) Printer. (3) Upgrade all other DMB32's exhibiting Problem/Symptoms as noted on Page 2.

Problem/Symptom:

See Page 2 for Problem/Symptoms Section.

- 1) Verify E28 is part number 23-369E6-00.
- 2) Verify E29 is part number 23-370E6-00. 3) Verify DMB32 (T1032) is at rev. K1 or higher.

Compatibility/Prerequisite FCO: N/A

Est. Time to Install:	1.0 Hr.
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Special Tools or Test Equipment: N/A

FCO	Parts	Information
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Order by	Quantity:	Part Number:	Description:
FCO Kit#:			
EQ-01522-02	1	T1012-00 DMB32	(VAXBI COMM CONTROLLER)
FA-04822-02	1	FCO Document	

EQ Kit Variation System/Option Applic:

Approvals
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CSSE Engineer Lee Sondrini	F.S. Product Safety Robert Brister	F.S. Logistics Joseph Michalski
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CSSE Manager Jonathan Lewis	F.S. Microfiche Libraries EP-FSVDC-LB VAX	Affected Population: 724
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MicroMedia Pub Diane MacDonald	VAXnotes	Initial Kitting: 724
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Revision:

A

Hardcopy Publication:

750

FCO Release Date

June 18, 1989

Parts Availability:

July 1989

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FCO DMB32-F001

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## PROBLEM/SYMPTOMS (Continued from Page 1.)

1. Problem: Incorrect mask in Virtual to Physical address translation routine causing invalid access to System/Process Page Table Entries.  
Symptom: Print queues hang, (system logs LIA0 errors), system reboot required to free print queue), print jobs lost, async ports exhibit lost data, and sync port logs "Line Sync Lost" errors.
2. Problem: Revision 10 Microcode (Rev."H1/H2" T1012) does not support 2000 LPM LP29 Printer.  
Symptom: Unacceptable throughput of LP29 Printer.
3. Problem: Start of 68000 cycles not synchronized to start of VAXBI Master transactions.  
Symptom: 1) Intermittent EVDAK test 32 failures (hard error number 8).  
2) DMA errors which caused VMS/SNA to experience occasional automatic shutdown of the circuit with "Circuit Shutdown Forced, Device Inactive" error messages.
4. Problem: Async RX and TX split speed operation mis-matched.  
Symptom: Split speed operation requires transmit speed to be varied by changing receive speed and vice-versa.
5. Problem: First four receive sync characters discarded by DMB32 following a receive abort in GENBYTE or BISYNC mode.  
Symptom: Problem in GENBYTE protocol which caused time-out problem in customer written network applications.
6. Problem: PBUFFCT register not updated at the termination of a transfer.  
Symptom: PR.CHAR.CT field not updated with the number of characters left to transmit at the end of a DMA.
7. Problem: BIIC EXT Vector Bit clear after module reset, to conform to DEC STD 057.  
Symptom: BIIC EXT Vector Bit set after node self-test.



\* \*\*\* CAUTION \*\*\* \*  
\* INSERT THE MODULE SLOWLY AND CAREFULLY TO AVOID CATCHING \*  
\* COMPONENTS ON THE CARD GUIDES OR ADJACENT MODULES. \*  
\*\*\*\*\*

5. Reset CB1 on the cabinet power controller and power up the system using the console switch.
6. Ensure that the T1012 (DMB32) Diagnostic LED is on. This will indicate that the On-Board Diagnostics have completed satisfactorily.

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FCO DMB32-F001

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REWORK INSTRUCTIONS  
(continued)

7. Run the DMB32 standalone diagnostic EVDK to verify correct operation of the module. Due to the firmware changes a patch is required for EVDK revision 3.0 to run error free.

```
DS> LOAD EVDK  
DS> DEPOSIT C253 10068  
DS> DEPOSIT/BYTE C24E 3F  
DS> SAVE
```

If the patch is not installed the diagnostic will report the following error:

```
Test 25 Error 5  
Printer Port DMA Start and Abort test Failed.
```

This problem will be resolved for VAX Diagnostic Release 34.  
EVDK version 4.0 will no longer require the preceding patch.

```
\^ DMB32  
\ DMB32  
\ DMB32-F001  
\ SONDRINI  
\ 1989  
\ JUN  
\ FCO_DOCS
```