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FIELD CHANGE ORDER

Number: DEBNA-R001

Applicability: Retrofit all T1034 DEBNA modules that are below a Rev "E". This FCO incorporates the following;

ECO: ECO T1034-MK004 - New Part Revision "E"

Field spares stock should also be upgraded.

PROBLEM/SYMPTOM: DEBNA uVAX machine-checks (VMS ETA0 Restarts/errors) will occur if using short xmit packets, such as with TSM (LAT Mgmt.) or NCP> CONNECT NODE LAT-Remote-console activity, due to firmware bug.

Quick Check: Revision "E3 or E4" - Look for 23-250E6-00 at location E2.

Compatibility/Prerequisite FCO: N/A

Est. Time to Install:
1 hour

Special Tools or Test Equipment: See page 2

## FCO Parts Information

Order by	Quantity:	Part Number:	Description:
FCO Kit#:			
EQ-01500-XX	1		See Page 2
FA-04795-01	1		FCO Document

EQ Kit Variation System/Option Applic: N/A

## Approvals

CSSE Engineer	F.S. Product Safety	F.S. Logistics
Jim Vermette	Bob Brister	Ed Duggan

CSSE Manager	F.S. Microfiche Libraries	Affected Population:
Jan Sicard		3,037

ESD&P Micropub.	EP-FSNVX-LB VAX	Initial Kitting:
Ray LeBlanc	VAXnotes	3,037
	STARS	

Revision:		Hardcopy Publication:
A		3,037

FCO Release Date  
5-JAN-88

Parts Availability:  
January 1988

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FCO DEBNA-R001

PAGE 2 OF 13

SPECIAL TOOLS: Continued from page 1

Field Service Tool Kit.  
VELOSTAT Electrostatic Field Service Kit (P/N 29-26246-00).  
Field Service Tool Kit

FCO KIT CONTENTS: Continued from page 1

	Quantity	Part Number	Description
	-----	-----	-----
EQ-01500-01	1	23-250E6-00	ROM
	1	23-251E6-00	ROM
	1	23-252E6-00	ROM
	1	23-253E6-00	ROM
	1	23-280E5-00	ROM
	1	23-281E5-00	ROM
	1	36-19209-05	BRADY MARKER "E"
	1	36-19208-03	BRADY MARKER "3"
	1	36-19208-04	BRADY MARKER "4"
	1	FA-04795-01	FCO Document
EQ-01500-02	1	FA-04795-02	ETDRIVER Floppy
EQ-01500-03	1	FA-04795-03	DEBNA Diagnostics Floppy

DEBNT MICROCODE UPGRADE TABLE OF CONTENTS: PAGE NO.

-----  
I. Installation Procedures for VAX 82X0/83X0 Configuration 1..... 2  
II. Installation Procedures for VAX 82X0/83X0 Configuration 2..... 6  
III. Installation Procedures for VAX 85X0/8700/8800..... 9

Section I - Installation Procedures for VAX 82X0/83X0 Configuration 1:

```

*****
*
*           NOTE
*
*   You must be running VMS V4.5 or above to install this FCO
*
*****

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FCO   DEBNA-R001

PAGE  3  OF 13

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1. Before shutting down the operating system, you must install the new ETDRIVER and should install the DIAGNOSTICS contained on the floppy FA-04795-02 (EQ-01500-02) and floppy FA-04795-03 (EQ-01500-03). These are the appropriate ETDRIVER for either VMS 4.5 (ETDRIVER\_V45.EXE) or 4.6 (ETDRIVER\_V46.EXE) and Diagnostics EBSAA, EZSAA, EVDYC, EVDYD.
2. Log into VMS and install floppy FA-04795-02 in CSA1: and mount;
  - A. MOUNT/OVER=ID CSA1: ! VMS ETDRIVER.EXE should always be copied into SYS\$COMMON:[SYSEXEXE]; not in SYS\$SPECIFIC:[SYSEXEXE].
3. If you are running VMS version 4.5 do the following;
  - A. RENAME SYS\$COMMON:[SYSEXEXE]ETDRIVER.EXE ETDRIVER\_OLD.EXE
  - B. COPY/LOG CSA1:[ETDRIVER]ETDRIVER\_V45.EXE SYS\$COMMON:[SYSEXEXE]ETDRIVER.EXE
4. If you are running VMS version 4.6 do the following;
  - A. RENAME SYS\$COMMON:[SYSEXEXE]ETDRIVER.EXE ETDRIVER\_OLD.EXE
  - B. COPY/LOG CSA1:[ETDRIVER]ETDRIVER\_V46.EXE SYS\$COMMON:[SYSEXEXE]ETDRIVER.EXE
5. Once the correct ETDRIVER has been copied dismount CSA1:
  - A. DISMOUNT CSA1:
6. Now place the second floppy FA-04795-03 into CSA1: and mount;
  - A. MOUNT/OVER=ID CSA1:
7. You may now copy the diagnostic supervisor and the correct Debna diagnostics;
  - A. COPY/LOG CSA1:[SYSMAINT]EBSAA.EXE SYS\$COMMON:[SYSMAINT]
  - B. COPY/LOG CSA1:[SYSMAINT]EVDYC.EXE SYS\$COMMON:[SYSMAINT]

- 8. Shut down the system by executing the Shutdown Command Procedure.

\$ @SYS\$SYSTEM:SHUTDOWN

After VMS shuts down, type HALT.... you will now be in console mode PROMPT is >>>

- 9. Turn the upper keyswitch on the console panel fully counterclockwise and set the main circuit breaker at the back of the BA32 box to the "OFF" (0) position.

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FCO DEBNA-R001

PAGE 4 OF 13

\*\*\*\*\*
\* NOTE \*
\* If battery backup H7231 is present as an option, the DEC- \*
\* PWR-BUS cable 17-00931-0X must be in place between the 877 \*
\* power controller and the H7231 prior to the BA32 circuit \*
\* breaker being placed in the off position. If this cable \*
\* is not in place, battery backup may become activated. The \*
\* circuit breaker on the 877 power controller must not be \*
\* utilized. \*
\*\*\*\*\*

- 10. From the front of the CPU cabinet, fully extend the cabinet stabilizer leg.
11. From the rear of the processor cabinet, release the BA32 box track lock.
12. Slide the BA32 box out of the cabinet..
13. Remove the BA32 box top cover.

\*\*\*\*\*
\* C A U T I O N \*
\* \*
\* The module, as all other VAX 8XX0 modules, \*
\* contains electrostatic discharge sensitive \*
\* devices (ESDS). The use of the VELOSTAT \*
\* kit is essential to prevent damage which may \*
\* not be noticed immediately. \*
\*\*\*\*\*

- 14. Set up VELOSTAT KIT

- a. Unfold the VELOSTAT mat to full size (24" x 24").
- b. Attach the 15 foot ground cord to the VELOSTAT snap fastener on the mat.
- c. Attach the alligator clip end of the ground cord to a good ground on the cabinet.
- d. Attach the wrist strap to either wrist and the alligator clip to a convenient portion of the mat.
- e. Remove the module from it's CPU option slot and place it on the mat.

15. Use ALL ESD safety precautions to prevent DOA modules in kit.

16. Open the EQ-01500-01 kit and check that the correct roms are inclosed in the FCO kit. It should be P/N 23-250E6-00, 23-251E6-00, 23-252E6-00, 23-253E6-00, 23-280E5-00, 23-281E5-00. If the part number is incorrect return the roms to the designated repair center for upgrade and discontinue this procedure.

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FCO DEBNA-R001

PAGE 5 OF 13

17. Lift the lever of the VAXBI cardcage housing the T1034 module to be upgraded. Remove the module from the cardcage and place it on the Velostat mat.
18. Check the revision of the module taken from the machine. If the module is a T1034 at Rev E3 or E4 it should be reinstalled and proceed to step 21.
19. If the T1034 is a Rev D3 or D4 replace the roms by following the next step. Also, refer to figure 1, (page 13) for the T1034 Unit Assembly drawing.

Old Roms -----	Location -----	New Roms -----
23-277E6-00	E02	23-250E6-00
23-278E6-00	E06	23-251E6-00
23-279E6-00	E08	23-252E6-00
23-280E6-00	E13	23-253E6-00
23-288E5-00	E79	23-280E5-00
23-289E5-00	E81	23-281E5-00

20. Once the roms are changed, place the brady markers on the module and return the T1034 module back to its original BI slot.
21. Return the lever of the VAXBI cardcage to the locked positon.
22. Place the top cover on the BA32 box but do not secure it with the

14 screws.

23. Power up the CPU by turning on the Circuit Breaker on the back of the BA32 box to the "ON" (1) position and turning the upper keyswitch on the front console panel to ENABLE. The DEBNA self-test runs upon power up. Check that the amber LED on the T1034 lights. If the LED does not light, try reseating the module.

24. Secure the BA32 box's top cover.

25. Slide the BA32 box back into the cabinet making sure that cables are not harmed and retract the stabilizer leg.

26. Verify DEBNA by running the diagnostics:

a. Load and execute the diagnostics in the following numeric order:

- 1. EBSAA Rev 10.8 (contained in EVNDX Release 29)
- 2. EVDYC Rev 2.1 (prereleased diagnostic Release 31)
- 3. EVDYD Rev 2.2

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FCO    DEBNA-R001
PAGE  6  OF  13

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27. Bring up the VMS Operating System.

28. Update the Site Management Guide to reflect this FCO.

29. Report this FCO activity on the LARS for in the "Fail Area/Module/FCO/Comments" column as follows: FCO DEBNA-R001 (See page 12 for further instructions.)

Section II - Installation Procedures for VAX 82X0/83X0 Configuration 2:

```

*****
*
*                               NOTE
*
*   You must be running VMS V4.5 or above to install this FCO
*
*****

```

1. Before shutting down the operating system, you must install the new ETDRIVER and should install the DIAGNOSTICS contained on the floppy FA-04795-02 (EQ-01500-02) and floppy FA-04795-03 (EQ-01500-03). These are the appropriate ETDRIVER for either VMS 4.5 (ETDRIVER\_V45.EXE) or 4.6 (ETDRIVER\_V46.EXE) and Diagnostics EBSAA, EZSAA, EVDYC, EVDYD.

2. Log into VMS and install floppy FA-04795-02 in CSA1: and mount;
  - A. MOUNT/OVER=ID CSA1: ! VMS ETDRIVER.EXE should always be copied into SYS\$COMMON:[SYSEXEXE]; not in SYS\$SPECIFIC:[SYSEXEXE].
3. If you are running VMS version 4.5 do the following;
  - A. RENAME SYS\$COMMON:[SYSEXEXE]ETDRIVER.EXE ETDRIVER\_OLD.EXE
  - B. COPY/LOG CSA1:[ETDRIVER]ETDRIVER\_V45.EXE SYS\$COMMON:[SYSEXEXE]ETDRIVER.EXE
4. If you are running VMS version 4.6 do the following;
  - A. RENAME SYS\$COMMON:[SYSEXEXE]ETDRIVER.EXE ETDRIVER\_OLD.EXE
  - B. COPY/LOG CSA1:[ETDRIVER]ETDRIVER\_V46.EXE SYS\$COMMON:[SYSEXEXE]ETDRIVER.EXE
5. Once the correct ETDRIVER has been copied dismount CSA1:
  - A. DISMOUNT CSA1:

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FCO DEBNA-R001

PAGE 7 OF 13

6. Now place the second floppy FA-04795-03 into CSA1: and mount;
  - A. MOUNT/OVER=ID CSA1:
7. You may now copy the diagnostic supervisor and the correct Debna diagnostics;
  - A. COPY/LOG CSA1:[SYSMAINT]EBSAA.EXE SYS\$COMMON:[SYSMAINT]
  - B. COPY/LOG CSA1:[SYSMAINT]EVDYC.EXE SYS\$COMMON:[SYSMAINT]
  - C. COPY/LOG CSA1:[SYSMAINT]EVDYD.EXE SYS\$COMMON:[SYSMAINT]
8. Shut down the system by executing the Shutdown Command Procedure.
 

```
$ @SYS$SYSTEM:SHUTDOWN
```

After VMS shuts down, type HALT.... you will now be in console mode  
PROMPT is >>>
9. Remove the processor cabinet rear door.

```

*****
*                               *
*               NOTE            *
*   If battery backup H7231 is present as an option, the DEC-   *
*   PWR-BUS cable 17-00931-0X must be in place between the 877 *

```

```

* power controller and the H7231 prior to the BA32 circuit *
* breaker being placed in the off position. If this cable *
* is not in place, battery backup may become activated. The *
* circuit breaker on the 877 power controller must not be *
* utilized. *
*****

```

10. Turn the upper keyswitch on the console panel fully counterclockwise and set the main circuit breaker at the back of each AC input assembly to the "OFF" (0) position.

```

*****
*
*                   C A U T I O N
*
*   The module, as all other VAX 8XX0 modules,
*   contains electrostatic discharge sensitive
*   devices (ESDS). The use of the VELOSTAT
*   kit is essential to prevent damage which may
*   not be noticed immediately.
*
*****

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FCO    DEBNA-R001
PAGE  8  OF  13

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- 
11. Set up VELOSTAT KIT.
    - a. Unfold the VELOSTAT mat to full size (24" x 24").
    - b. Attach the 15 foot ground cord to the VELOSTAT snap fastener on the mat.
    - c. Attach the alligator clip end of the ground cord to a good ground on the cabinet.
    - d. Attach the wrist strap to either wrist and the alligator clip to a convenient portion of the mat.
    - e. Remove the module from it's CPU option slot and place it on the mat.
  12. Use ALL ESD safety precautions to prevent DOA modules in kit.
  13. Open the EQ-01500-01 kit and check that the correct roms are inclosed in the FCO kit. It should be P/N 23-250E6-00, 23-251E6-00, 23-252E6-00, 23-253E6-00, 23-280E5-00, 23-281E5-00. If the part number is incorrect return the ROMS to the designated repair center for upgrade and discontinue this procedure.
  14. Lift the lever of the VAXBI cardcage housing the T1034 module to



be upgraded. Remove the module from the cardcage and place it on the Velostat mat.

15. Check the revision of the module taken from the machine. If the module is a T1034 at Rev E3 or E4 it should be reinstalled and proceed to step 18.
16. If the T1034 is a Rev D3 or D4 replace the roms by following the next step. Also, refer to figure 1, (page 13) for the T1034 Unit Assembly drawing.

Old Roms	Location	New Roms
-----	-----	-----
23-277E6-00	E02	23-250E6-00
23-278E6-00	E06	23-251E6-00
23-279E6-00	E08	23-252E6-00
23-280E6-00	E13	23-253E6-00
23-288E5-00	E79	23-280E5-00
23-289E5-00	E81	23-281E5-00

17. Once the roms are changed, place the brady markers on the module and return the T1034 module back to its original BI slot.
18. Return the lever of the VAXBI cardcage to the locked position.

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FCO    DEBNA-R001  
PAGE  9  OF  13
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- 
19. Power up the CPU by turning both circuit Breakers on each AC input assembly to the "ON" (1) position and turning the upper keyswitch on the front console panel to ENABLE.
  20. Replace and latch the processor cabinet rear door.
  21. Verify DEBNA by running the diagnostics:
    - a. Load and execute the diagnostics in the following numeric order:
      1. EBSAA Rev 10.8 (contained in EVNDX Release 29)
      2. EVDYC Rev 2.1 (prereleased diagnostic Release 31)
      3. EVDYD Rev 2.2
  22. Bring up the VMS Operating System.
  23. Update the Site Management Guide to reflect this FCO.

24. Report this FCO activity on the LARS for in the "Fail Area/  
 Module/FCO/Comments" column as follows: FCO DEBNA-R001  
 (See page 12 for further instructions.)

Section III - Installation Procedures for VAX 85X0/8700/8800.

I. VAX 85X0/8700/8800 - FIELD INSTALLATION AND TEST PROCEDURE

```
*****
*
*                               NOTE
*
*   You must be running VMS V4.5 or above to install this FCO
*
*****
```

1. Before shutting down the operating system, you must install the new ETDRIVER and should install the DIAGNOSTICS contained on the floppy FA-04795-02 (EQ-01500-02) and floppy FA-04795-03 (EQ-01500-03). These are the appropriate ETDRIVER for either VMS 4.5 (ETDRIVER\_V45.EXE) or 4.6 (ETDRIVER\_V46.EXE) and Diagnostics EBSAA, EZSAA, EVDYC, EVDYD.

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FCO    DEBNA-R001
PAGE  10  OF  13

```

2. Log into VMS and install floppy FA-04795-02 in CSA1: and mount;
  - A. MOUNT/OVER=ID CSA1: ! VMS ETDRIVER.EXE should always be copied into SYS\$COMMON:[SYSEXE]; not in SYS\$SPECIFIC:[SYSEXE].
3. If you are running VMS version 4.5 do the following;
  - A. RENAME SYS\$COMMON:[SYSEXE]ETDRIVER.EXE ETDRIVER\_OLD.EXE
  - B. COPY/LOG CSA1:[ETDRIVER]ETDRIVER\_V45.EXE SYS\$COMMON:[SYSEXE]ETDRIVER.EXE
4. If you are running VMS version 4.6 do the following;
  - A. RENAME SYS\$COMMON:[SYSEXE]ETDRIVER.EXE ETDRIVER\_OLD.EXE
  - B. COPY/LOG CSA1:[ETDRIVER]ETDRIVER\_V46.EXE SYS\$COMMON:[SYSEXE]ETDRIVER.EXE
5. Once the correct ETDRIVER has been copied dismount CSA1:
  - A. DISMOUNT CSA1:





19. Verify that the DEBNA passes self test by observing that the amber light is illuminated on the DEBNA (T1034) module.

20. Verify DEBNA by running the diagnostics:

a. Type @SYSINIT.COM to initialize CPU.

b. Load and execute the diagnostics in the following numeric order:

1. EZSAA Rev 10.8 (contained in EVNDX Release 29)
2. EVDYC Rev 2.1 (prereleased diagnostic release 31)
3. EVDYD Rev 2.2

21. Bring up the VMS Operating System.

22. Update the Site Management Guide to reflect this FCO.

23. Report this FCO activity on the LARS for in the "Fail Area/Module/FCO/Comments" column as follows: FCO DEBNA-R001

-----  
LARS

	USA	GIA	EUROPE
Activity -			
Contract and Warranty	W	U	Y
Non Contract/Non Warranty	F	U	F
DEC Option	DEBNA	DEBNA	DEBNA
Type of Call	M	M	M
Action Taken	D	D	I
Fail Area-Module-FCO-Comments	DEBNA-R001	DEBNA-R001	DEBNA-R001
Material Used	EQ-01500-01	EQ-01500-01	EQ-01500-01
	EQ-01500-02	EQ-01500-02	EQ-01500-02
	EQ-01500-03	EQ-01500-03	EQ-01500-03

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FCO DEBNA-R001

PAGE 13 OF 13

THIS PAGE WILL CONTAIN FIGURE 1

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\ \1988  
\ \JAN  
\ \FCO\_DOCS