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FIELD CHANGE ORDER	Number:	DRB32-W-I001
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Applicability: Upgrade DRB32-W options (on any VAXBI system, i.e. 82XX, 83XX, 8530, 8550, 8700 and 8800), that exhibit the problems described below. This FCO incorporates the following ECO: T1023-LK003.

Problem/Symptom:

1. If the "USER DEVICE" connected to the DRB32-W bus does not use a byte counter for control, it will fail by picking up an extra invalid binary word off the bus.
2. When explicitly writing the IODAT register, the data is not correctly latched and driven onto the DR11-W bus.

Quick Check: E34 is P/N 23-088L1-00.

Compatibility/Prerequisite FCO: N/A	Est. Time to Install: 1 hr.
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Special Tools or Test Equipment: N/A

FCO Parts Information

Order by FCO Kit#:	Quantity:	Part Number:	Description:
EQ-01499-01	1	T1023	Rev F3 Module
FA-04794-01	1		FCO Document

EQ Kit Variation System/Option Applic: N/A

Approvals

CSSE Engineer Jim Vermette	F.S. Product Safety Robert Brister	F.S. Logistics Ed Duggan
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CSSE Manager Jan Sicard	F.S. Microfiche Libraries EP-FSNVX-LB VAX	Affected Population: 100
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MicroMedia Pub Ray LeBlanc	VAXnotes	Initial Kitting: 100
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Revision:  
A

Hardcopy Publication:  
150

FCO Release Date  
30-DEC-87

Parts Availability:  
January 1988

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I. FIELD INSTALLATION AND TEST PROCEDURE FOR 82XX/83XX Systems Config. 1  
=====

1. Shut down the system by executing the Shutdown Command Procedure.

\$ @SYS\$SYSTEM:SHUTDOWN

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

At the console prompt type HALT (CR)

2. Remove the processor cabinet front and rear doors and fully extend

the cabinet stabilizer leg.

```

*****
*                                     *
*                               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. *
*****

```

3. Turn the upper key switch on the console panel fully counterclockwise and slide the BA32 system box out of the cabinet. Set the main circuit breaker at the back of the BA32 box to the "OFF" (down) position. Remove the BA32 top cover.
4. Use ALL ESD safety precautions to prevent DOA modules in upgrade kit.

```

*****
*                                     *
*                               CAUTION *
*   All VAX modules contain electrostatic discharge sensitive *
*   devices (ESDS). The use of the new VELOSTAT case is essential *
*   to prevent damage which may not be noticed immediately. *
*****

```

5. Hook the static strap from the system to the ESD case. Hook the other ESD strap to your wrist.
6. Remove the module, T1023, from the cardcage and place it on the open top half of the conductive package. Check the revision of the module taken from the machine. If the module is an "F3" reinstall it in the same slot and proceed to step 11. If the module revision is below an "F3" proceed to the next step.

```

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```

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7. Remove the T1023, "F3" module (EQ-01499-01) from the container. Install it in the same slot from which you removed the old module.
8. Package the old rev module in the same ESD container and close the case.
9. Remove the grounding cable from the ESD container once closed.

10. Return the old T1023 module ASAP through normal channels for upgrading.
11. Power up the system by turning the main Circuit Breaker on the back of the BA32 to the "ON" position and turning the upper key switch to the "Enable" position.
12. Boot the VAX Diagnostic Supervisor (VDS) and run one pass of EBKAX.

```
*****
*                                     *
*                               NOTE   *
* Before diagnosing the DRB32-W using EVDRI, be sure the DRB32-M *
* module (T1022) is fully functional. Only after the DRB32-M is *
* known to be good should diagnosing of the DRB32-W take place. *
* This will help prevent erroneous testing results. The DRB32-W *
* does not contain a VAXBI corner and, therefore, does not need *
* to be attached to the supervisor process.                       *
*****
```

13. Load EVDRI.EXE and test the T1023 module.
14. Upon completion of the diagnostics exit the VDS.
15. Slide the BA32 box back into the cabinet and retract the stabilizer leg.
16. Bring up the operating system.
17. Update Site Management Guide to reflect this FCO.
18. Report FCO activity on LARS form in the "Module/fail area/FCO". (See attached examples.)

```

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```

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## II. FIELD INSTALLATION AND TEST PROCEDURE FOR 8200/8300 SYSTEMS - Config. 2

=====

1. Shut down the system by executing the Shutdown Command Procedure.

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

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

At the console prompt type HALT (CR)

2. 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.                           *
*****

```

3. Turn the upper key switch on the console panel fully counterclockwise and set the main circuit breaker at the back of each AC input assembly to the "OFF" (down) position.

4. Remove the plastic shield in front of the modules to allow access to the modules.

```

*****
*                                     *
*               CAUTION                 *
*   All modules contain electrostatic discharge sensitive devices *
*   (ESDS). The use of the new VELOSTAT case is essential to prevent *
*   damage which may not be noticed immediately.                 *
*                                                                     *
*****

```

5. Hook the static strap from the system to the ESD case. Hook the other ESD strap to your wrist.

6. Remove the module, T1023, from the cardcage and place it on the open top half of the conductive package. Check the revision of the module taken from the machine. If the module is an "F3" reinstall it in the same slot and proceed to step 11. If the module revision is below an "F3" proceed to the next step.

7. Remove the T1023, "F3" module (EQ-01499-01) from the container. Install it in the same slot from which you removed the old module.

```

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```

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8. Package the old rev module in the same ESD container and close the case.

9. Remove the grounding cable from the ESD container once closed.
10. Return the old T1023 module ASAP through the normal channels for upgrading.
11. Power up the system 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.
12. Boot the VAX Diagnostic Supervisor (VDS) and run one pass of EBKAX.

```
*****
*                                     *
*                               NOTE   *
* Before diagnosing the DRB32-W using EVDRI, be sure the DRB32-M *
* module (T1022) is fully functional. Only after the DRB32-M is *
* known to be good should diagnosing of the DRB32-W take place. *
* This will help prevent erroneous testing results. The DRB32-W *
* does not contain a VAXBI corner and, therefore, does not need *
* to be attached to the supervisor process.                       *
*****
```

13. Load EVDRI.EXE and test the T1023 module.
14. Upon completion of the diagnostics exit the VDS.
15. Replace plastic shield securing the four screws.
16. Replace and latch the processor cabinet rear door.
17. Bring up the operating system.
18. Update Site Management Guide to reflect this FCO.
19. Report FCO activity on LARS form in the "Module/fail area/FCO".  
(See attached example).

```

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### III. FIELD INSTALLATION AND TEST PROCEDURE for VAX 85X0/8700/8800 SYSTEMS

=====

```
*****
*                                     *
*                               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 new VELOSTAT *
* case is essential to prevent damage which may *
* not be noticed immediately. *
* *
*****

```

1. Shut down the system by executing the Shutdown Command Procedure.

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

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

At the console prompt type HALT (CR)

2. Using the console command, power off the system,

```
>>>POWER OFF (CR)
```

If an 85X0, open the rear door and set CB1 on the H405-B to the OFF position. If an 8700/8800 open front left door and set CB1 on the 876-A to the "OFF" (0) position.

3. Use ALL ESD safety precautions to prevent DOA modules in upgrade kit.
4. Hook static strap from 8XXX to ESD case, hook the other ESD strap to wrist. Open air-flow slides in front of the card cage exposing area around slot containing the T1023 module. Open ESD container by breaking the ESD SEAL on the front of the case. Check that the T1023 is at revision "F3" by using the quick check. It should be P/N 23-088L1-00 at location E34. If the part number is incorrect return the module through the normal channels for upgrading and proceed to step 9.
5. Place the T1023 module, revision "F3" (EQ-01499-01), on the floor in front of the 8XXX; then, using the hex key, open the doors of the 8XXX.

```

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```

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6. Remove the module from the cardcage and place it on the open top half of the conductive package. Check the revision of the module taken from the machine. If the module is an "F3" reinstall it in the same slot and proceed to step 9. If the module revision is below an "F3" proceed to the next step.

7. Remove the T1023, "F3" module (EQ-01499-01) from the container. Install it in the same slot from which you removed the old module.
8. Package the old rev module in the same ESD container and close the case.
9. Remove grounding cable from ESD container once closed.
10. Set Circuit Breaker CB1 on the 876-A or H405-B Power Controller to the "ON" (1) position. Close and latch cabinet doors.

Power up the CPU by typing the following command;

>>>POWER ON <CR> at the console.

11. Boot the VAX Diagnostic Supervisor (VDS) and run one pass of EBKAX.

```
*****
*                               NOTE                               *
* Before diagnosing the DRB32-W using EVDRI, be sure the DRB32-M *
* module (T1022) is fully functional. Only after the DRB32-M is *
* known to be good should diagnosing of the DRB32-W take place. *
* This will help prevent erroneous testing results. The DRB32-W *
* does not contain a VAXBI corner and, therefore, does not need *
* to be attached to the supervisor process.                       *
*****
```

12. Load EVDRI.EXE and test the T1023 module.
13. Upon completion of the diagnostics exit the VDS.
14. Type @SYSINIT.COM to initialize the CPU and boot the Operating System.
15. Update Site Management Guide to reflect this FCO.
16. Report FCO activity on LARS form in the "Module/fail area/FCO". (See attached example).

```

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```

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	USA	GIA	EUROPE
Activity -			
Contract and Warranty	W	U	Y
Non Contract/Non Warranty	W	U	F
DEC Option	DRB32-W	DRB32-W	DRB32-W
Type of Call	M	M	M
Action Taken	D	D	I
Fail Area-Module-FCO-Comments	DRB32-W-I001	DRB32-W-I001	DRB32-W-I001
Material Used	EQ-01499-01	EQ-01499-01	EQ-01499-01

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 \\DRB32  
 \\VERMETTE  
 \\1987  
 \\DEC  
 \\FCO\_DOCS