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FIELD CHANGE ORDER

Number: DRB32-0003

Applicability: This FCO applies to all DRB32-C options only. All DRB32-C options and field service spares (T1026 modules) should be upgraded to revision "E1". Self-Maintenance customer orders are filled by the Customer Return Center (CRC) on an exchange basis.

Problem/Symptom: This FCO fixes simultaneous intermittent timeout problems with the DRB32-C option while transferring data from the VAX to the Cray system. This situation could cause both the VAX and the Cray to crash.

Revision E1 module - wires have been added at location E50, pins 11, 12 and 13.

Compatibility/Prerequisite FCO:

N/A

Est. Time to Install:

1 hr.

Special Tools or Test Equipment:

N/A

FCO Parts Information

| Order by | Quantity: | Part Number: | Description: |
|-------------|-----------|--------------|--------------------|
| FCO Kit#: | | | |
| EQ-01542-01 | 1 | T1026 | Revision E1 module |
| EQ-01542-02 | 1 | BL-A0889-DE | RX50/EVDRJ Diag |
| FA-04848-01 | 1 | | FCO Document |

EQ Kit Variation System/Option Applic:

Approvals

| | | |
|-----------------------------------|--|--------------------------------|
| CSSE Engineer Ken Jackson | F.S. Product Safety Robert Brister | F.S. Logistics Bill Stanley |
| CSSE Manager Jan Sicard | F.S. Microfiche Libraries EP-FSVDC-LB VAX | Affected Population: 60 |
| MicroMedia Pub Diane MacDonald | VAXnotes STARS | Initial Kitting: 60 |

Revision:
A

Hardcopy Publication:
75

FCO Release Date
8-MAY-89

Parts Availability:
April 1989

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I. FIELD INSTALLATION AND TEST PROCEDURE FOR 62XX Systems

=====

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

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

After VMS shuts down, type ^P you will now be at the console mode prompt, >>>

At the console prompt type HALT <CR>

2. Turn the upper key switch on the system's console panel fully counterclockwise. This shuts off the output of the battery

backup unit if present. To Ensure "Total Off", pull the power circuit breaker on the H405 AC power controller located on the lower right side at the back of the system. Unplug the system.

3. 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.         *  
*****
```

4. Hook the static strap from the system to the ESD case. Hook the other ESD strap to your wrist.
5. Remove the module, T1026, 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 "E1" reinstall it in the same slot and proceed to step 10. If the module revision is below an "E1" proceed to next step.
6. Remove the T1026 "E1" module (EQ-01542-01) from the container. Install it in the same slot from which you removed the old module.
7. Complete the Non-Conforming Material Tag and attach the tag to 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. It is IMPERATIVE that the old T1026 module be returned ASAP through normal channels for upgrading.

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-
11. Plug in the system. Apply power to the system by pushing the Circuit Breaker to the "ON" position. Power up the system by turning the upper key switch on the systems console panel clockwise to the "ENABLE" position.
 12. Boot the VAX Diagnostic Supervisor (VMS/DS).

```

*****
*                                     NOTE                                     *
* Before diagnosing the DRB32-C using EVDRJ, 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-C take place. *
* This will help prevent erroneous testing results. The DRB32-C *
* does not contain a VAXBI corner and, therefore, does not need *
* to be attached to the supervisor process. *
*****

```

13. Load EVDRJ.EXE (EQ-01542-02) and test the T1026 module.
14. Upon successful completion of the diagnostics exit the VDS.
15. Bring up the operating system.
16. Update Site Management Guide to reflect this FCO.
17. Report FCO activity on LARS form in the "Module/fail area/FCO".
(See attached examples.)

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

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

```
$ @SYSS$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 front and rear doors on the cabinet containing the
 BA32 and fully extend the cabinet stabilizer leg where applicable.

```

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```

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```

*****
*                                     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, T1026, 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 "E1" reinstall it in the same slot and proceed to step 11. If the module revision is below an "E1" proceed to the next step.
7. Remove the T1026 "E1" module (EQ-01542-01) from the container. Install it in the same slot from which you removed the old module.
8. Complete the Non-Conforming Material Tag and attach the tag to the old module.
9. Package the old rev module in the same ESD container and close the case.
10. Remove the grounding cable from the ESD container once closed.
11. It is IMPERATIVE that the old T1026 module be returned ASAP through normal channels for upgrading.

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12. 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.

13. Boot the VAX Diagnostic Supervisor (VMS/DS).

```

*****
*
*           NOTE
*
* Before diagnosing the DRB32-C using EVDRJ, 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-C take place.
* This will help prevent erroneous testing results. The DRB32-C
* does not contain a VAXBI corner and, therefore, does not need
* to be attached to the supervisor process.
*****

```

14. Load EVDRJ.EXE (EQ-01542-02) and test the T1026 module.

15. Upon successful completion of the diagnostics exit the VDS.

16. Slide the BA32 box back into the cabinet and retract the stabilizer leg. Replace the doors referred to in Step 2, Page 4.

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 examples.)

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.

```

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```

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```

*****
*
*           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, T1026, 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 "E1" reinstall it in the same slot and proceed to step 11. If the module revision is below an "E1" proceed to the next step.
7. Remove the T1026 "E1" module (EQ-01542-01) from the container. Install it in the same slot from which you removed the old module.
8. Complete the Non-Conforming Material Tag and attach the tag to the old module.
9. Package the old rev module in the same ESD container and close the case.
10. Remove the grounding cable from the ESD container once closed.
11. It is IMPERATIVE that the old T1026 module be returned ASAP through the normal channels for upgrading.

— — — — —
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12. 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.
13. Boot the VAX Diagnostic Supervisor (VMS/DS).


```

*****
*                                     NOTE                                     *
* Before diagnosing the DRB32-C using EVDRJ, 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-C take place. *
* This will help prevent erroneous testing results. The DRB32-C *
* does not contain a VAXBI corner and, therefore, does not need *
* to be attached to the supervisor process. *
*****

```
14. Load EVDRJ.EXE (EQ-01542-02) and test the T1026 module.
15. Upon successful completion of the diagnostics exit the VDS.
16. Replace plastic shield securing the four screws.
17. Replace and latch the processor cabinet rear door.
18. Bring up the operating system.
19. Update Site Management Guide to reflect this FCO.
20. Report FCO activity on LARS form in the "Module/fail area/FCO". (See attached example).

III. FIELD INSTALLATION AND TEST PROCEDURE FOR VAX 85X0/8700/88X0/89X0

=====

```

*****
*                                     CAUTION                                     *
*                                     *
* 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. *
*                                     *
*****

```

```

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```

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1. Shut down the system by executing the Shutdown Command Procedure.
\$ @SYS\$SYSTEM:SHUTDOWN

After VMS shuts down, type CTRL^P HALT.... you will now be in the console mode. The prompt is ">>>"

2. Using the 85X0/8700/88X0/89X0 console commands, power the CPU off.

>>>POWER OFF (CR)

After the system has powered down, place the Circuit Breaker (CB1) located near the input power cord, in the "OFF"(0) position. Wait five minutes to allow the capacitors to bleed down.

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 T1026 module. Open ESD container by breaking the ESD SEAL on the front of the case. Check that the T1026 is at revision "E1". If the part number is incorrect return the module through the normal channels for upgrading and proceed to step 9. If the rev is "E1" go to the next step.
5. Place the T1026 module, revision E1 (EQ-01542-01) on the floor in front of the 8XXX; then, using the hex key, open the doors of the 8XXX.
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 "E1" reinstall it in the same slot and proceed to step 9. If the module revision is below an "E1" proceed to the next step.
7. Remove the T1026, "E1" module (EQ-01542-01) from the container. Install it in the same slot from which you removed the old module.
8. Complete the Non-Conforming Material Tag and attach the tag to the old module.
9. Package the old rev module in the same ESD container and close the case. It is IMPERATIVE that the old module be returned ASAP through normal channels for upgrading.
10. Remove grounding cable from ESD container once closed.
11. Set Circuit Breaker CB1 to the "ON" (1) position.

Power up the CPU by typing the following command:

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

12. Boot the VAX Diagnostic Supervisor (VMS/DS).

```
*****
*
*                               NOTE
*
* Before diagnosing the DRB32-C using EVDRJ, 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-C take place.
* This will help prevent erroneous testing results. The DRB32-C
* does not contain a VAXBI corner and, therefore, does not need
* to be attached to the supervisor process.
*****
```

13. Load EVDRJ.EXE (EQ-01542-02) and test the T1026 module.

14. Upon successful completion of the diagnostics exit the VDS.

15. Type @SYSINIT.COM to initialize the CPU and boot the Operating System.

16. Update Site Management Guide to reflect this FCO.

17. Report FCO activity on LARS form in the "Module/fail area/FCO". (See attached example).

LARS EXAMPLE

| CATEGORY O | USA | GIA | EUROPE |
|-------------------------------|-------------|-------------|-------------|
| Activity - | | | |
| Contract and Warranty | W | U | Y |
| Non Contract/Non Warranty | F | F | F |
| RTD/Off-site Agreement | F | | |
| DEC Option | DRB32-C | DRB32-C | DRB32-C |
| Type of Call | M | M | M |
| Action Taken | D | D | I |
| Fail Area-Module-FCO-Comments | DRB32-0003 | DRB32-0003 | DRB32-0003 |
| Material Used | EQ-01542-01 | EQ-01542-01 | EQ-01542-01 |
| | EQ-01542-02 | EQ-01542-02 | EQ-01542-02 |

(a) Warranty Optimum, Warranty Standard and Warranty Basic (on-site) Agreements.

(b) RTD=Return to Digital or Off-site Agreements; If Field Engineer On-site, use Activity Code "F".

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\\JACKSON
\\1989
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\\MAY

\\FCO_DOCS