



FCO Application

Field Change Order Number: LX5XX-XX-0001

Field Change Order Name: Prioris LX5000 RTC

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Applicability: Prioris LX Models FR944WW / LX5150, FR945WW / LX5200

Problem Statement: System Real Time Clock (RTC) loosing it's CMOS settings.

A circuit design flaw was identified during the engineering evaluation and testing for this problem. E48 (4287 RTC) pin15 (RTCW L) was floating during a system reset condition. This would allow a small window of opportunity where an erroneous write to the RTC could occur.

Symptom: CMOS checksum error during POST.

After the system is shutdown or reset it loses its CMOS settings. If the system is using the on-board SCSI controller it will have lost its settings and the boot disk will not be seen. This causes a OS not found error.

Solution: Replace the RTC chip E48 with a RTC assembly (part number **70-33198-01**) per ECO 5423048-TA019.

Additional Information:

Quick Check: N/A

PRE/CO-REQUISITE FCO: N/A **MTTI HRS:** 1.0

TOOL/TEST EQUIPMENT: LX SCU and BIOS , AMI Diags (see installation procedure)

FCO PARTS INFORMATION:

FCO KIT Number	DESCRIPTION OF CONTENTS
EQ-01761-01	70-33198-01
	FA-05096-01

Installation Procedure:

It is recommended that you have the latest LX SCU and BIOS as well as a copy of the AMI diagnostics with you when you go on site.

The SCU will be required. The latest LX SCU and BIOS can be obtained at; http://www.windows.digital.com/~ftp/index/ix_Prioris_LX.htm , the latest AMI diags are at http://pcbu.ako.dec.com/PSO/diags/new/rel_serv.htm , or you can create the floppies for all from the QuickLaunch CD (order # QC-05DAA-H8). (version 3.0 per July 1997).

If the Customer's system is down and the CMOS settings are lost you should perform this workaround first - (step 7 restores the default CMOS settings). Then run the SCU (Step 8 for defaults) and/or reapply the IRQ to any resources that lost them. The system will then work. The problem may reoccur until the reworked RTC is applied, (See "Replacing the Server Battery" below.)

Replacing the Server Battery (integral part of the RTC chip)

To replace the RTC with the modified RTC chip supplied with the FCO kit, perform the following steps:

after shutting down the customer's operating system insert the appropriate version of the SCU diskette.

1. **Record your server's configuration settings using the SCU.**
 - Write-enable the SCU diskette and insert in the floppy drive
 - Reboot the system to the SCU utility
 - select - create a backup SCI file
 - enter filename (e.g. oldsys)
 - enter comments: (e.g. before RTC FCO)
 - OK for Save - (this writes the oldsys.sci file to the SCU floppy)
 - return to the main menu and exit.
2. Power off your server.
3. Unlock and remove the left side panel.
4. Remove the RTC chip (ref. to Fig 3.15 below)
5. Install the new RTC chip (ref. to Fig 3.15 below).
 - The RTC assembly supplied in the FCO kit can be identified by the small surface mount resistor and green ECO wire on the bottom of the RTC chip between pins 15 and 24.
6. Power up the system (make sure the SCU diskette is in the Floppy drive)
 - The system will come up with a Cmos checksum error
7. **Restore Default BIOS Cmos parameters**
 - Run setup (hit the F2 key) and hit CR to load default BIOS values
 - Set the correct Date/Time
 - Save Changes & Exit (this will reboot the system)
 - While rebooting you will notice the EISA config error message
8. **Restore the Default Eisa config data**

- When the SCU utility comes up, select Configure computer
 - This will indicate that either a back-up file exists or to use defaults
 - Press enter to use
 - Select Save and Exit .This will save the backup or default settings and reboot the SCU Utility.
9. **Restore the Saved SCI file (from Step 1)**
- Now select load backup SCI file
 - A directory of .SCI files on the Floppy will be shown
 - Select the filename saved in Step 1 (e.g. oldsys.sci)
 - Select Save and Restart (this restores the Eisa configuration data from the file saved on the floppy in Step 1)
10. **Run AMI diags to verify that the replaced RTC Clock chip works OK.**
11. Replace and lock the left side panel.
12. It is advised to have the customer make a copy of the .SCI file for his own use and future reference !

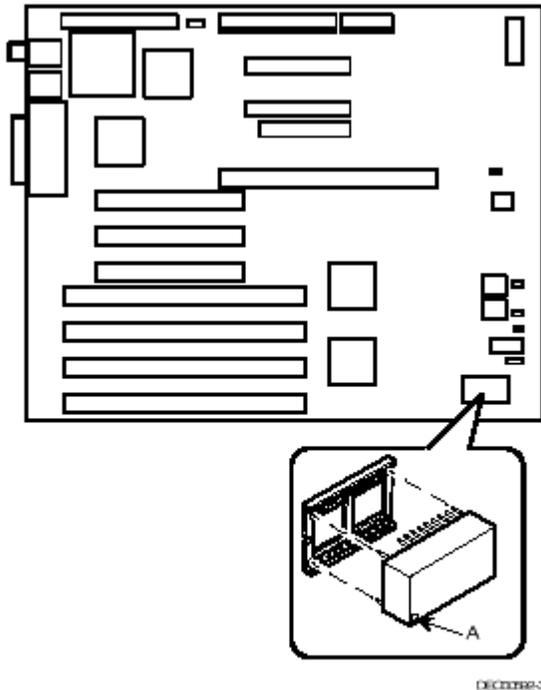


Figure 3-15. Installing the Server Battery

CAUTION: Make sure pin 1 on the battery is correctly aligned with the pin 1 location on the socket (A, Figure 3-15). The pin 1 location on the battery is designated by a (white) dot in the lower left corner of the battery. Incorrect installation may cause faulty server operation.

C A U T I O N : Use ALL ESD safety precautions to prevent DOA's on material in kit. The module, as with all modules, contain electrostatic discharge sensitive devices (ESDS). The use of the Velostat Kit or ESD module box is essential to prevent damage which may not be noticed immediately.