digital™

ML200 PCI NVRAM Installation Information

EK–ML200–IN. A01

October 1994

Introduction

The ML200 PCI NVRAM module is a nonvolatile disk write cache used to accelerate file servers that use NFS, a synchronous disk I/O protocol. The ML200 module may be installed in any full-size 5 V 32-bit PCI slot. The ML200 is available in three options: ML200-AA (2 MB), ML200-BA (4 MB), and ML200-CA (8 MB).

Installation Procedure

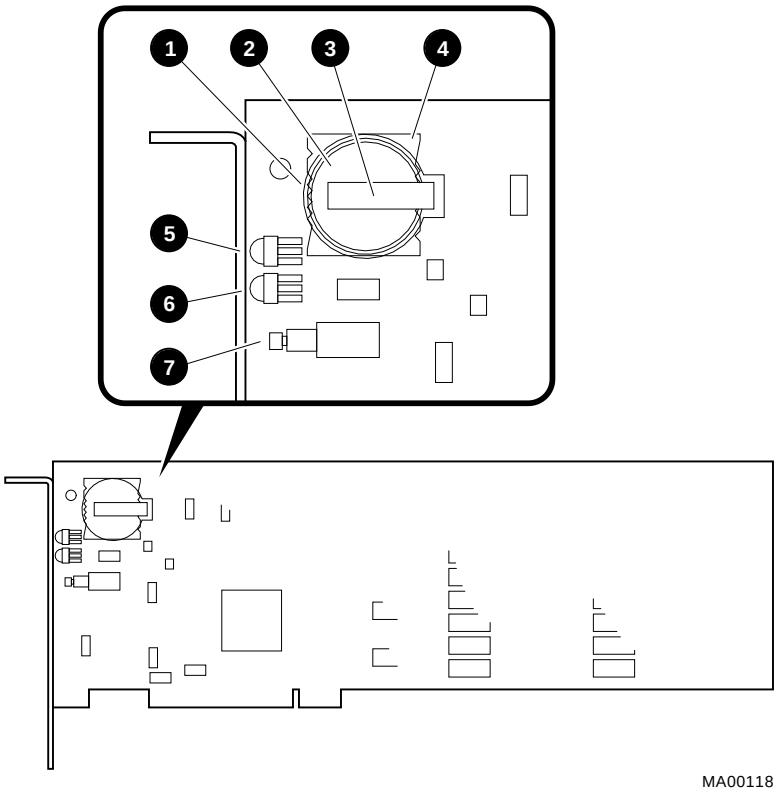
Use the following procedure to install the ML200 PCI NVRAM module in an Alpha AXP system:

1. Before installing the ML200 PCI NVRAM module, contact your service representative to verify that the installed versions of OSF/1 and console code support the ML200 module. If they do not support the ML200 module, a system software upgrade is required before proceeding.
2. Refer to the system documentation to identify a 5 V 32-bit PCI slot location and module orientation for installing the ML200 PCI NVRAM module.
3. Install the Prestoserve license product authorization key (PAK) by referring to the DEC OSF *Guide to Prestoserve* documentation. Follow these instructions for reconfiguring the system with the Prestoserve driver enabled.
4. Perform an orderly powerdown of the system.
5. Remove the ML200 PCI NVRAM module from the shipping container.
6. Remove the Mylar insulator located between the battery and the + battery terminal clip (see Figure 1). Do not place the module on a metal or conductive surface. Doing so could discharge or damage the battery.
7. Remove any system covers, if necessary, to allow access to the PCI slots.

S2711

8. Remove the blank filler panel from the slot selected for installing the ML200 PCI NVRAM module. (Save the filler panel screw for securing the ML200 module in place.)
9. Slide the module into the selected slot and apply firm pressure until the module is firmly seated. Secure the module in place with the screw that was saved from the filler panel removal.
10. Replace all system covers, then reboot the system and verify that the ML200 PCI NVRAM is recognized by the system.

Figure 1 ML200 PCI NVRAM Module Battery, LEDs, and Test Switch



❶ Battery holder
❷ Battery
❸ + battery terminal clip
❹ Mylar insulator
❺ Battery charged LED
❻ Battery enabled LED
❼ Battery enabled test switch

Status LEDs and Test Switch

The ML200 PCI NVRAM module has two status LEDs and a recessed test switch (see Figure 1).

Battery Charged LED—The green battery charged LED indicates the charge status of the battery. When the LED is on, the battery is charged to a sufficient level (2.5 V minimum). When the LED is off, the battery is not charged to a sufficient level. If the battery is not sufficiently charged when the system is booted, this LED will not be on and a 24-hour charging cycle begins. If the battery charged LED is still not on 24 hours after booting the system, the battery should be replaced.

Battery Enabled LED—The green battery enabled LED indicates whether the battery can supply power to the SRAMs and whether there is valid data in the NVRAM. When the LED is on, the battery will supply power to the SRAMs if the system power fails and valid data is in the NVRAM. When the LED is off, the battery will not supply power to the SRAMs if the system power fails and there is no valid data in the NVRAM.

Battery Enabled Test Switch—The battery enabled test switch is a recessed momentary contact switch that is used to verify whether the battery is supplying power to the SRAMs and valid data is in the NVRAM when the module is removed from the system or the system is powered off.

With the module removed from the system or the system powered off, depress the battery enabled test switch for 1 to 2 seconds and then release. When the switch is released, the battery enabled LED will be on momentarily if the battery is supplying power to the SRAMs and valid data is in the NVRAM. If the battery enabled LED is not on momentarily when the switch is released, then either there is no valid data in the NVRAM or the battery is discharged.

Caution

The battery enabled test switch should NEVER be depressed while the module is installed in a powered-up system.

Battery Removal and Replacement

The ML200 PCI NVRAM module contains a 3 V lithium-magnesium rechargeable battery that provides battery backup for preserving valid data in the NVRAM when the system loses power or is turned off. This battery should be replaced only with the same type battery (PN 12-39864-04) or an equivalent (leadless SANYO ML2430 [90 ma-hr]) battery.

Before removing and replacing the battery, read the Battery Information Sheet (36-43426-01) that is shipped with the module and observe all CAUTIONS about battery replacement and disposal.

To remove the battery from the module, remove the module bracket, lift the + battery terminal clip (being careful not to bend it), and slide the battery out of the battery holder.

To replace the battery, slide the new battery under the + battery terminal clip, being careful not to bend it. Be sure that the + battery terminal is facing up.