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StorageWorks

RAID Array 3000 Storage Subsystem Second Controller Option

Installation Guide

EK–SM3KC–IG. A01

Digital Equipment Corporation
Maynard, Massachusetts

First Edition, January, 1998

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Revision Record

This Revision Record provides a concise publication history of this guide. It lists the revision levels, release dates, and a summary of changes.

The following revision history lists all revisions of this publication and their effective dates. The publication part number is included in the Revision Level column, with the last entry denoting the latest revision. This publication supports the installation of the Second Controller Option into the StorageWorks RAID Array 3000 Pedestal Enclosure.

Revision Level	Date	Summary of Changes
EK–SM3KC–IG. A01	January, 1998	Original release.

About This Guide

This section identifies the audience of this guide. It also describes its contents and includes a list of associated documents and the conventions.

Intended Audience

This guide is intended for installers and operators of the RAID Array 3000 storage subsystem. Installing the subsystem and its options requires a general understanding of basic SCSI terminology and product installation procedures.

Document Structure

This guide contains the following section:

Chapter 1 Second Controller Option

1.0 Introduction – summarizes the content of this guide.

2.0 Installation Procedure – includes the steps required to install the second controller option into the pedestal enclosure.

Associated Documents

In addition to this guide, the following documentation is useful to the reader:

Table 1 Associated Documents

Document Title	Order Number
StorageWorks RAID Array 3000 Storage Subsystem Hardware User's Guide	*EK–SMCPO–UG*
StorageWorks RAID Array 3000 Configuration and Maintenance Guide	*EK–SMCS2–UG*
Installation Instructions for the RAID Array Replacement Controller – SWXRC-03	*EK–SMCPL–PN*

Conventions

Table 2 Style Conventions

Style	Meaning
plain monospace type	Text
boldface type	For the first instance of terms being defined in text, or both.
italic type	*For emphasis, manual titles, chapter summaries, keyboard key names.*

Support and Services

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Installation Support:	Contact the DIGITAL Distributor where the Storage Solution was Purchased / Local Digital Sales Office.
DIGITAL Multivendor Customer Service (MCS):	
Installation	Contact the DIGITAL Customer Support Center (CSC).
Warranty	Contact the DIGITAL Customer Support Center (CSC) for warranty service after solution is installed and operating.
Remedial	Contact the DIGITAL Customer Support Center (CSC) **Note:** A Service Contract is recommended when the equipment is out of warranty. Contact the local DIGITAL Sales Office.
Customer Support Center (CSC)	1 800-354-9000

Who to contact in Europe

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Installation Support and Installation:	Contact the DIGITAL Distributor or reseller from whom the Storage Solution was purchased.
For Warranty Service	See the Warranty Card packaged with the product.
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1

Second Controller Option

This guide describes how to install a second RAID controller in the pedestal. The second controller option adds a fail/safe feature to your storage subsystem. The redundant controller is installed directly below the existing controller.

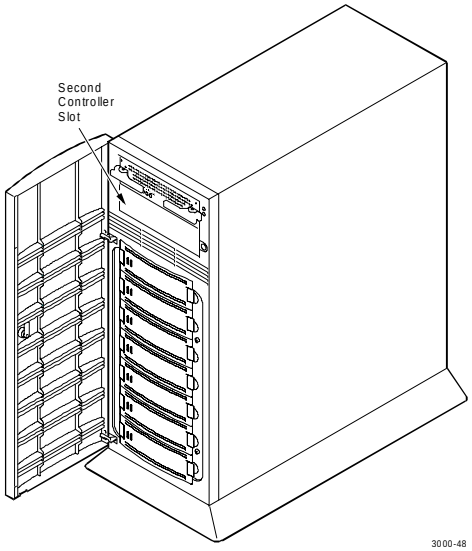
1.0 Introduction

The controller option provides a second (redundant) controller unit in your subsystem installation to preserve the integrity of data should the first controller sustain a malfunction. The second controller is installed directly below the existing device in the bottom controller slot of the pedestal (see Figure 1-1).

The installation procedure consists of adding two SIMM memory modules to the redundant controller and one memory module to the existing controller in the pedestal. Following the memory upgrade, you simply insert and seat the devices in their respective controller slots and configure the subsystem to accommodate a redundant controller. The following steps summarize the option installation procedure:

- Ensure the SCSI bus is quiescent prior to powering off the host, the pedestal, and the UPS
- Install two of the SIMM modules supplied with the kit into the second controller (all SIMMs must have the same memory capacity)
- Install the third SIMM module supplied with the kit into the existing controller
- Install the controllers into their appropriate slots in the pedestal
- Power up the subsystem and configure the second controller for redundant controller operation

Figure 1–1 Second Controller Pedestal Slot Location



2.0 Installation Procedure

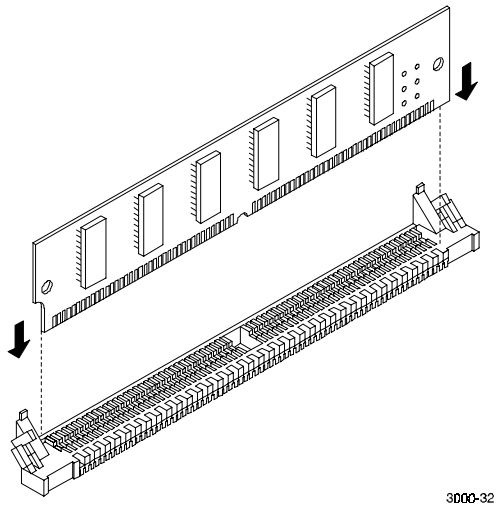
CAUTION

To prevent an electrical discharge from damaging the SIMMs, always wear an ESD wrist strap connected to a suitable ground when handling the memory modules.

1. Ensure that the UltraSCSI bus is in a quiescent state (no I/O activity).
2. Shut down the host system.
3. Issue a “shutdown” command from the SWCC console to the pedestal controller.
4. Power off the pedestal(s) and the UPS.
5. Perform an inventory of the items contained in the second controller kit option. The kit should contain the following:
   - RAID Array 3000 controller
   - 3 SIMMs
   - Model label
   - Warranty Card

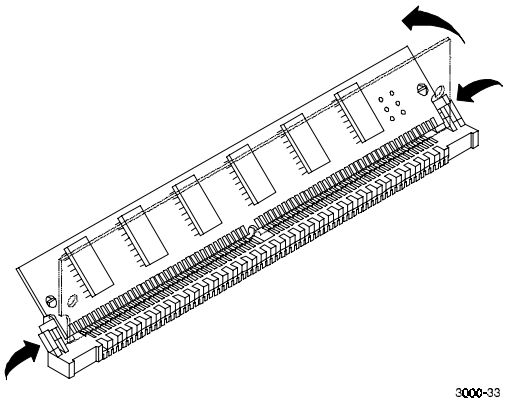
6. Install two of the SIMM modules into the second controller (make sure all modules are of the same type) by aligning the connector pins and inserting the modules into the SIMM module connectors as shown in Figure 1-2.

Figure 1–2 Insert Module into SIMM Connector



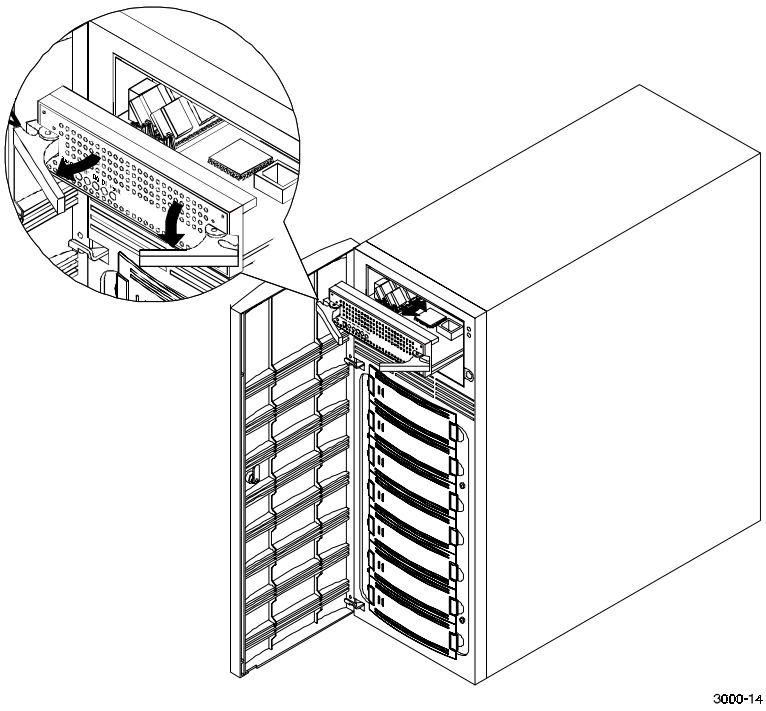
7. Ensure the module is firmly seated and then gently pivot it toward the controller board until it snaps into place as shown in Figure 1-3.

Figure 1–3 Pivot Module Down to Seat



8. Remove the existing controller (Figure 1-4) and install the third module into the empty SIMM connector using the same procedure described in steps 6 and 7.

Figure 1–4 Remove Controller from Top Slot



9. Replace the existing controller into the top controller slot in the pedestal and seat it into place by pushing forward on the side quick-disconnect handles. Make sure the guides on each side of the controller align with the guides in the slot.
10. Remove the dummy filler panel from the bottom controller slot by pulling the handle straight out.
11. Install the second controller into the bottom controller slot and seat it into place by pushing forward on the side quick-disconnect handles.
12. Power up the subsystem and refer to the *RAID Array 3000 Configuration and Maintenance Guide* for information describing how to configure the redundant controller option.

Reader's Comments

Manual Order Number:

EK–SM3KC–IG. A01___

RAID Array 3000 Second Controller Option Installation Guide

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Manual Rating	**Excellent**	**Good**	**Fair**	**Poor**
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Completeness (adequate information)	[ ]	[ ]	[ ]	[ ]
Clarity (easy to understand)	[ ]	[ ]	[ ]	[ ]
Organization (logical sequence of information)	[ ]	[ ]	[ ]	[ ]
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