DIGITAL Server 3300 Ultra SCSI Internal StorageWorks Shelf

Configuration Guide

February 1998

ER-H8520-IN. A01

Revision/Update Information: This is a new manual.

Digital Equipment Corporation
Maynard, Massachusetts

February 1998

Digital Equipment Corporation makes no representations that the use of its products in the manner described in this publication will not infringe on existing or future patent rights, nor do the descriptions contained in this publication imply the granting of licenses to make, use, or sell equipment or software in accordance with the description.

Possession, use, or copying of the software described in this publication is authorized only pursuant to a valid written license from Digital or an authorized sublicensor.

© Digital Equipment Corporation 1998. All rights reserved.

The following are trademarks of Digital Equipment Corporation: DIGITAL and the DIGITAL logo.

Introduction

This document shows how to install and configure a second Ultra SCSI bus extender card on a DIGITAL Server 3300 system. The following topics are covered:

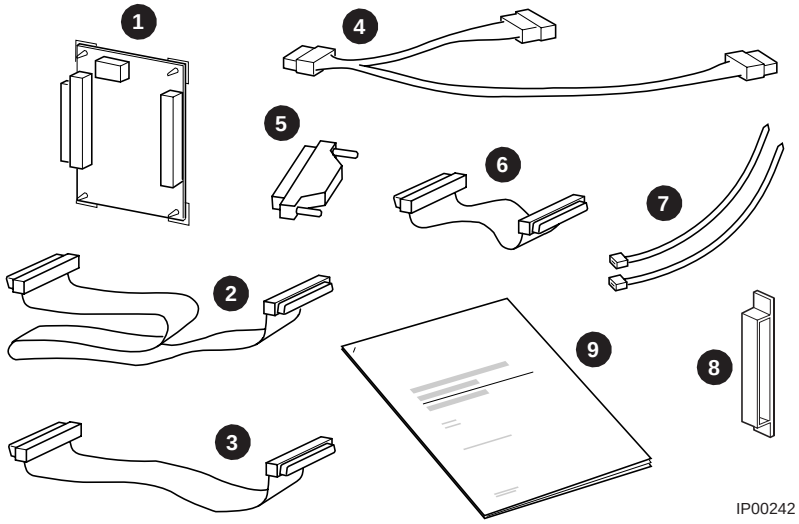
- Kit Contents
- Configuration Diagrams
- Installing the Ultra SCSI Bus Extender Card
- Verifying the Installation

Kit Contents

The Ultra SCSI Bus Splitter Kit (FR-H8520-AA) contains the following items:

Item	Description	Part Number
1	SCSI bus extender card (includes 4 adhesive-backed standoffs)	30-48985-01
2	SCSI data cable (from SCSI controller to bus extender card)	17-04143-04
3	SCSI data cable (from backplane to bus extender card)	17-04022-03
4	Y power cable harness assembly	17-04700-01
5	SCSI active terminator	12-41768-03
6	SCSI terminator cable	17-04019-02
7	Cable ties (2)	90-09617-00
8	Cable clip	12-13715-00
9	Documentation	ER-H8520-IN

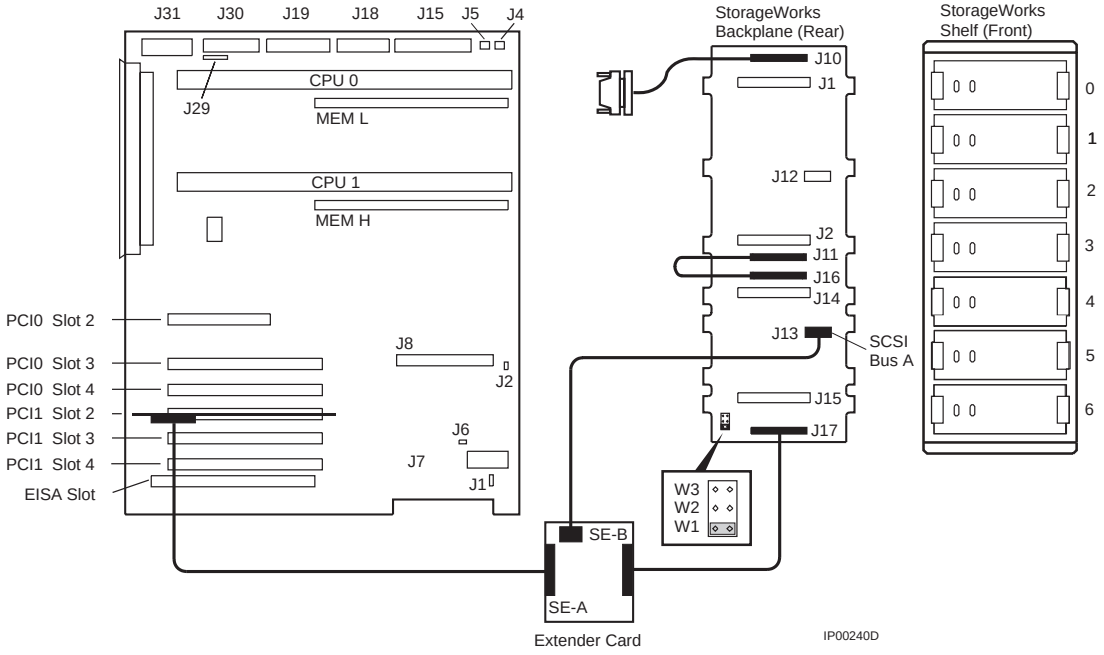
Figure 1 Kit Contents



Configuration Diagrams

Figure 2 shows a single Ultra SCSI bus configuration. This is the original configuration for your system.

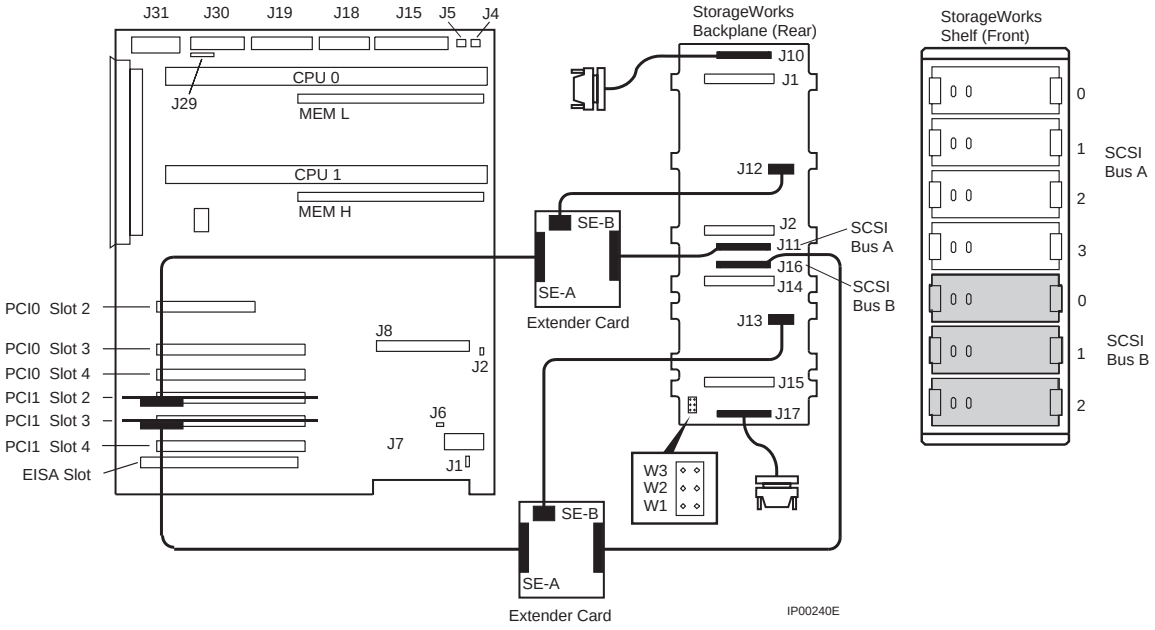
Figure 2 Single-Controller Ultra SCSI Bus Configuration



NOTE: In the single-controller configuration, a jumper is installed in the W1 position. Never install a jumper in either W2 or W3.

Figure 3 shows a dual Ultra SCSI configuration. The installation of the second Ultra SCSI extender card produces this configuration.

Figure 3 Dual Controller, Split-Backplane Ultra SCSI Bus Configuration

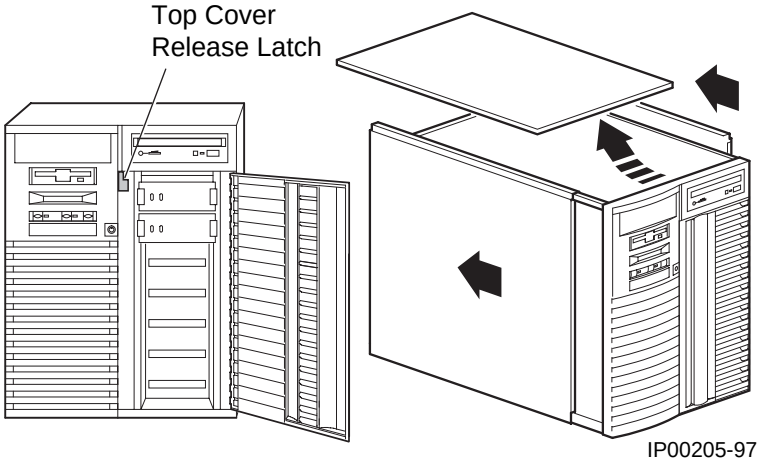


NOTE: When you configure the StorageWorks shelf for a split bus, remove the jumper from W1. Never install a jumper in either W2 or W3.

Installing the Ultra SCSI Bus Extender Card

1. Shut down the operating system and power down the system hardware.
2. Unplug the power cords.
3. Remove the covers of the enclosure to gain access to the StorageWorks backplane. See Figure 4.
   a) Turn the front door lock to the right to unlock the door.
   b) Pull the top cover latch down into the locked position.
   c) Using the groove at the rear of the top cover, pull the cover straight back about 2 inches, and lift up the cover.
   d) Pull the top of the left panel back, and then pull it up and away from the unit. Repeat this step for the right panel.

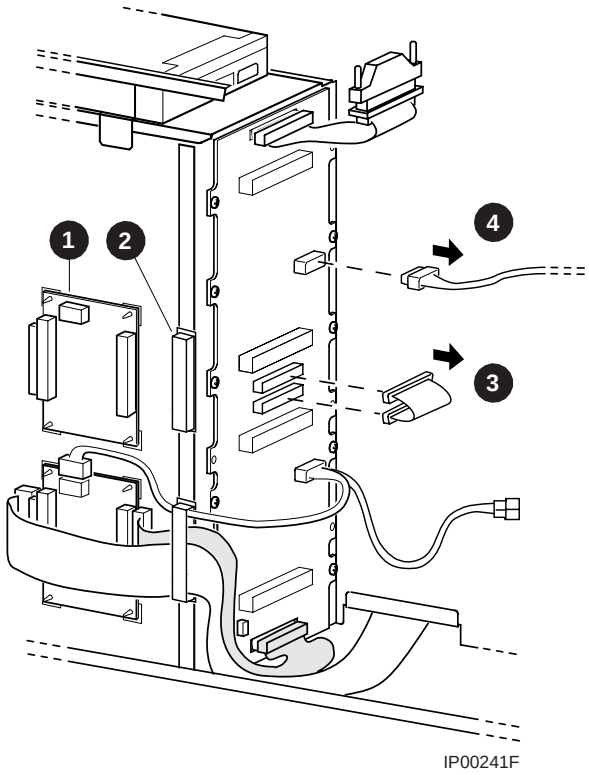
Figure 4 Removing Covers



NOTE: Refer to Figure 5 *on the facing page as you complete the following* instructions.

4. Mount the SCSI bus extender card (30-48985-01) upright on the side of the StorageWorks enclosure. See **1**.
   a) If the StorageWorks shelf has integrated mounting standoffs, snap the card into the standoffs on the side of the shelf.
   b) If the StorageWorks shelf does not have integrated mounting standoffs, use the 4 adhesive-backed standoffs that come with the extender card. Insert the standoffs into the 4 standoff holes on the back of the extender card. Peel off the paper backings, and then mount the card no more than 10 inches from the bottom of the enclosure and near the right side of the shelf. This placement ensures that cables reach their connectors.
5. Remove the adhesive backing from the cable clip (12-13715-00) and attach the cable clip. See **2**.
6. Remove the connecting jumper cable (J11/J16) from the StorageWorks backplane. See **3**.
7. Disconnect the power cable from the J12 connector. See **4**.

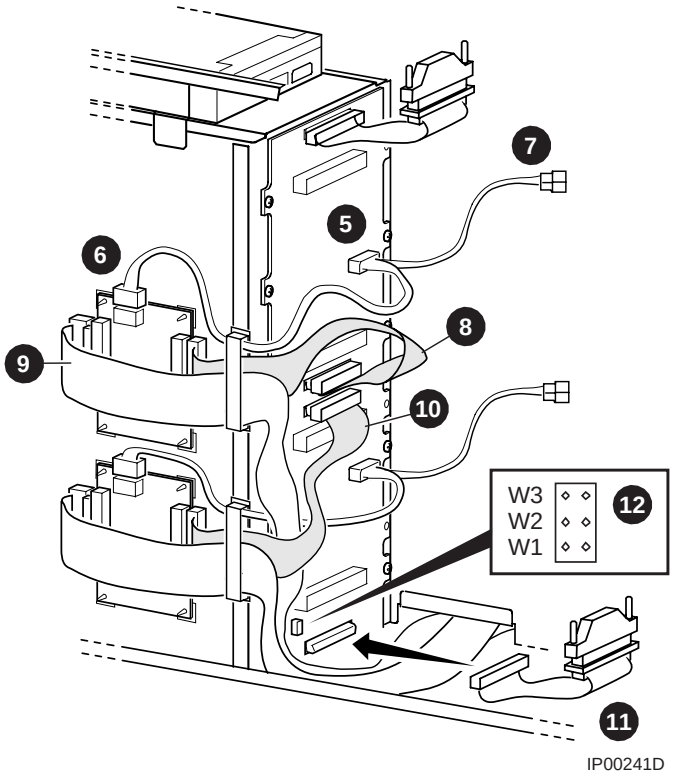
Figure 5



NOTE: Refer to Figure 6 *on the facing page as you complete the following instructions.*

8. Plug the short female end of the Y power cable harness assembly (17-04700-01) into J12. See **5**.
9. Plug the long female end of the Y-cable into the power connector on the extender card. See **6**.
10. Plug the male end of the Y-cable into the power cable originally going to J12. See **7**.
11. Connect one end of the short SCSI data cable (17-04022-03) to the right SCSI connector on the extender card. Connect the other end to the J11 connector on the StorageWorks backplane. See **8**.
12. Connect one end of the long SCSI data cable (17-04143-04) to the left SCSI connector on the extender card. Dress the cable as on the original card and connect the other end to a SCSI controller. See **9**.
13. Disconnect the SCSI data cable for the original extender card from the J17 connector and connect it to the J16 connector. See **10**.
14. Connect the SCSI terminator cable (17-04019-02) to the SCSI terminator (12-41768-03) to form the terminator assembly. Connect the terminator assembly to J17. Secure the terminator by attaching it to power cables in the area with cable ties (90-09617-00). See **11**.
15. Remove the W1 jumper and save it for future use, if desired. See **12**.

Figure 6

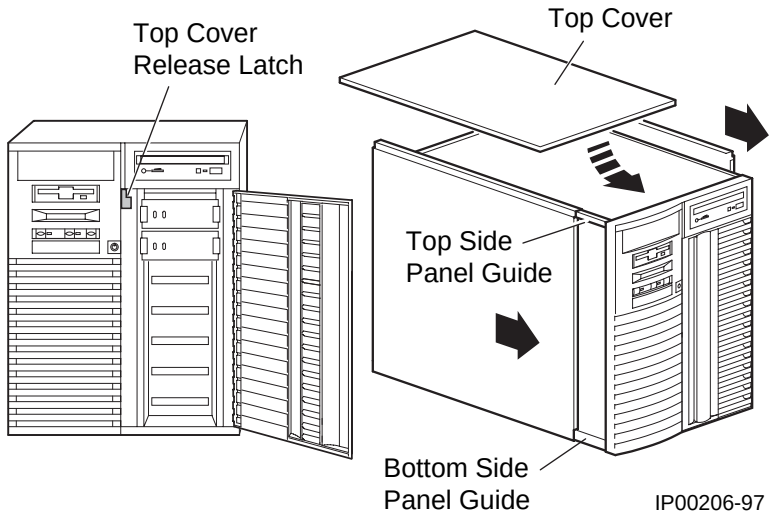


16. Replace the enclosure covers as shown in Figure 7.
    a) Align the guides on the top and bottom of the right panel with the lip of the system unit frame.
    b) Tilt the left panel top towards the unit, and lift the flange at the top of the panel over the system unit frame.
    c) Slide the panel forward into position. Repeat this step for the right panel.
    d) Align the top cover with the top of the side panels and slide the cover gently onto the unit from the rear.

       CAUTION: The top cover has a tab on the underside. Do not set the tab on top of the interlock switch. Doing so can damage the switch.

    e) Push the top cover latch up into the locked position to secure the cover and panels.
17. Plug in the system power cords.

Figure 7 Replacing Enclosure Covers



Verifying the Installation

Power up the system to the SRM console prompt, P00>>>.

Refer to the DIGITAL Server 3300 Series User's Guide for more information on using the SRM console.

Example

```
P00>>>show device dac0
polling dac0 (Mylex DAC960) slot 3, bus 0 PCI, hose 0
dra0.0.0.3.0       DRA0        2 Member RAID 0
dra1.0.0.3.0       DRA1        2 Member RAID 1
dra2.0.0.3.0       DRA2        2 Member RAID 1
dra3.0.0.3.0       DRA3        1 Member JBOD
P00>>>
```

NOTE: You must configure RAID devices with the RAID configuration utility to see the new configuration.