COMPAQ

AlphaServer DS20 Ultra SCSI Internal StorageWorks Shelf Configuration Guide

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Introduction

This document shows how to install and configure a second Ultra SCSI bus repeater card on a Compaq AlphaServer DS20 system. The following topics are covered:

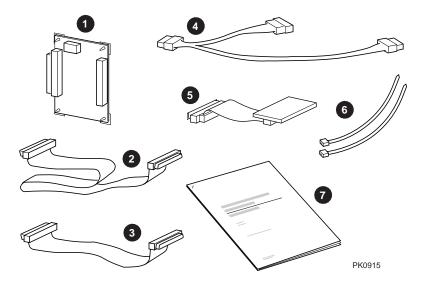
- **Kit Contents**
- **Configuration Diagrams**
- Configuring the Ultra SCSI Bus
- Verifying the Configuration

Kit Contents

The Ultra SCSI Bus Splitter Kit (H8253-AA) contains the following items for converting the single bus on the Compaq AlphaServer DS20 $\,$ to a split bus:

Item	Description	Part Number
0	SCSI bus repeater card	30-48985-01
2	SCSI data cable (from SCSI controller to repeater)	17-04890-01
③	SCSI data cable (from backplane to repeater)	17-04022-03
4	Y power cable harness assembly	17-04700-01
6	SCSI active terminator assembly	17-04795-01
6	Cable ties (2)	90-09617-00
•	Documentation	EK-H8253-IN

Figure 1 Kit Contents



Single-Bus Configurations

The Compaq AlphaServer DS20 internal StorageWorks shelf is configured for single-bus mode. Your system came with one of the following StorageWorks configurations:

- A single-bus configuration with one multi-channel controller (Figure 2).
- A single-bus configuration with two single-channel controllers (Figure 3).

Figure 2 Single-Bus Configuration (One Multi-Channel Controller)

StorageWorks Shelf (Front)

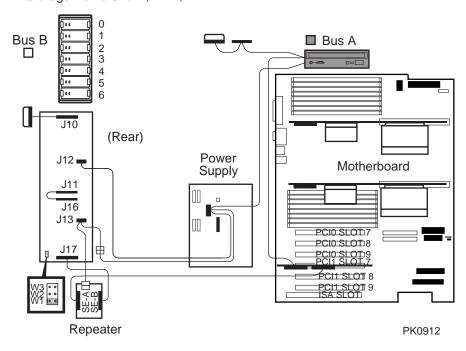
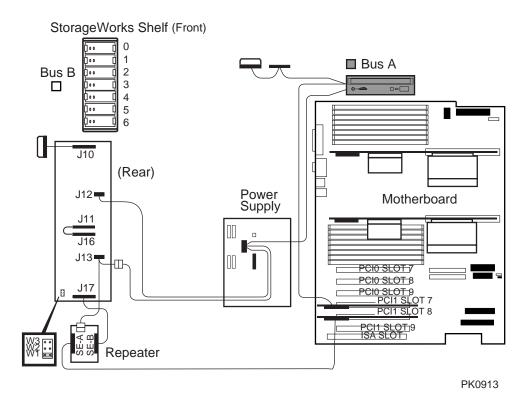


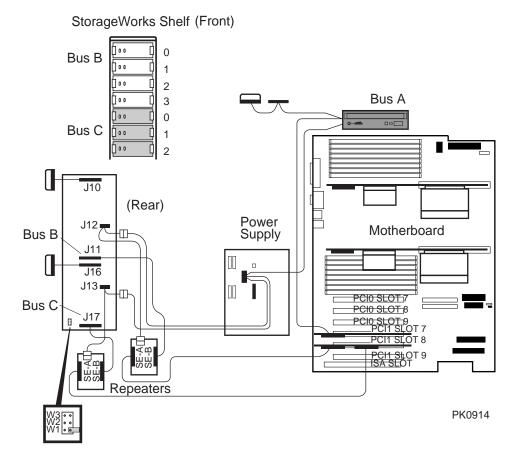
Figure 3 Single-Bus Configuration (Two Single-Channel Controllers)



Split Bus Configuration

The H8253-AA kit allows you to convert the single bus to a split bus (Figure 4). For this configuration, you must add a repeater card as described in the following sections. Three SCSI controller channels are required.

Figure 4 Split-Bus Configuration

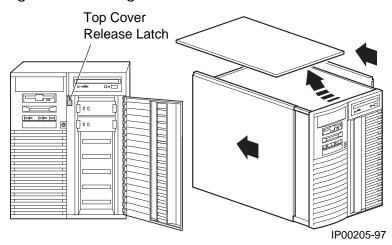


Converting to a Split Bus

Removing the System Covers

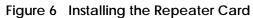
- 1. Shut down the operating system and power down the system hardware.
- 2. Unplug the power cords.
- 3. Remove the covers of the enclosure to gain access to the StorageWorks backplane. See Figure 5.
 - a. Unlock the front door and open the drive access area.
 - b. Pull the top cover latch down to unlock the cover.
 - c. Using the groove at the rear of the top cover, pull the cover straight back about two inches, and lift up the cover.
 - d. Slide the left panel back, and then pull it up and away from the unit. Repeat this step for the right panel.

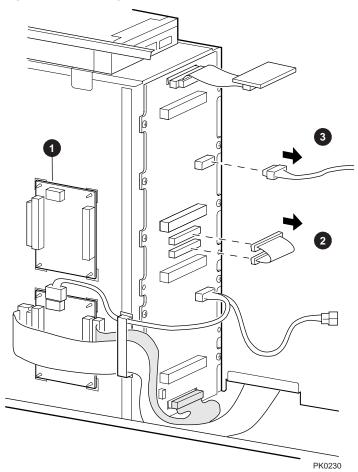
Figure 5 Removing Covers



Installing the Repeater Card

- 1. Snap the SCSI bus repeater card (30-48985-01) upright into the standoffs on the side of the StorageWorks shelf. See 1.
- 2. Remove the connecting jumper cable from the StorageWorks backplane. See 2.
- 3. Disconnect the power cable from the connector. See **3**.





Connecting the Cabling

NOTE: Refer to Figure 7 to complete the following instructions.

- 1. Connect the center female connector of the Y power cable harness assembly (17-04700-01). See **5**.
- 2. Plug the other female connector of the Y-cable into the power connector on the repeater card. See **6**.
- 3. Plug the male end of the Y-cable into the power cable you disconnected previously (page 7, step 3). See **7**.
- 4. Connect one end of the short SCSI data cable (17-04022-03) to the right SCSI connector on the repeater card. Connect the other end to the connector on the StorageWorks backplane. See **8**.
- 5. Connect one end of the long SCSI data cable (17-04890-01) to the left SCSI connector on the repeater card. Dress the cable as on the original card and connect the other end to a SCSI controller. See **9**.
- 6. Connect the terminator assembly. See 10.
- 7. Remove the W1 jumper and save it for future use, if desired. See 11.

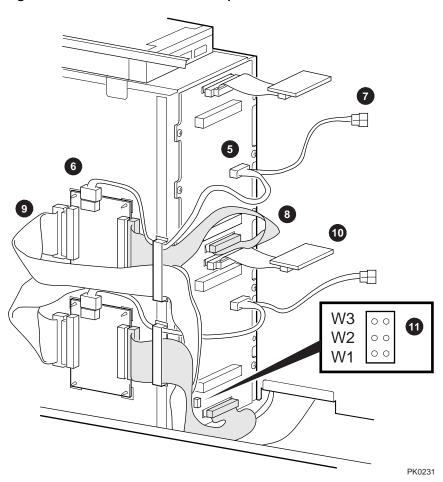


Figure 7 Cable Connections for Split Bus

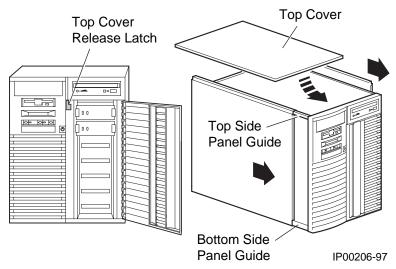
Replacing the Enclosure Covers

- 1. Align the bottom channel of the left panel with the panel guides (Figure 8).
- 2. Lift the panel slightly so that the top flange is over the system chassis and slide the panel forward into position.
- 3. Repeat steps 1 and 2 for the right panel.
- 4. 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.

- 5. Push the top cover latch up (locked) to secure the cover and panels.
- 6. Plug in the system power cords.

Figure 8 Replacing Enclosure Covers



Verifying the Installation

- 1. Power up the system to the SRM console prompt, P00>>>.
- 2. Enter a **show device** command to verify the SCSI configuration.

```
P00>>> show device

      P00>>> snow device
      RRD46
      1337

      dkb0.0.0.8.1
      DKB0
      RZ1CB-CS
      0844

      dkb100.1.0.8.1
      DKB100
      RZ1CB-CS
      0844

      dkb200.2.0.8.1
      DKB200
      RZ1CB-CS
      0844

      dva0.0.0.0.0
      DVA0
      PKA0
      SCSI Bus ID 7

      pkb0.7.0.8.1
      PKB0
      SCSI Bus ID 7

      P00>>>
      PKB0
      SCSI Bus ID 7

                                                                                                                                                       SCSI Bus ID 7 5.57
                                                                                                                                                          SCSI Bus ID 7 5.57
P00>>>
```

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