



**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:

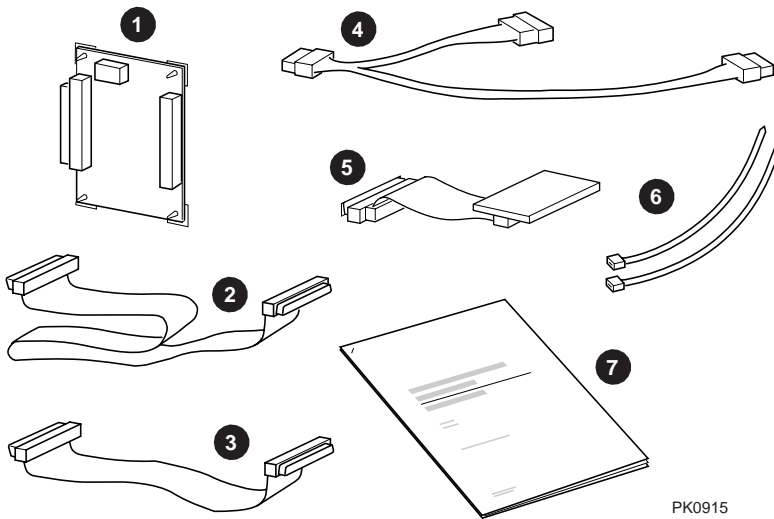
- Kit Contents
- Configuration Diagrams
- Configuring the Ultra SCSI Bus
- Verifying the Configuration

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
❶	SCSI bus repeater card	30-48985-01
❷	SCSI data cable (from SCSI controller to repeater)	17-04890-01
❸	SCSI data cable (from backplane to repeater)	17-04022-03
❹	Y power cable harness assembly	17-04700-01
❺	SCSI active terminator assembly	17-04795-01
❻	Cable ties (2)	90-09617-00
❼	Documentation	EK-H8253-IN

Figure 1 Kit Contents



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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)

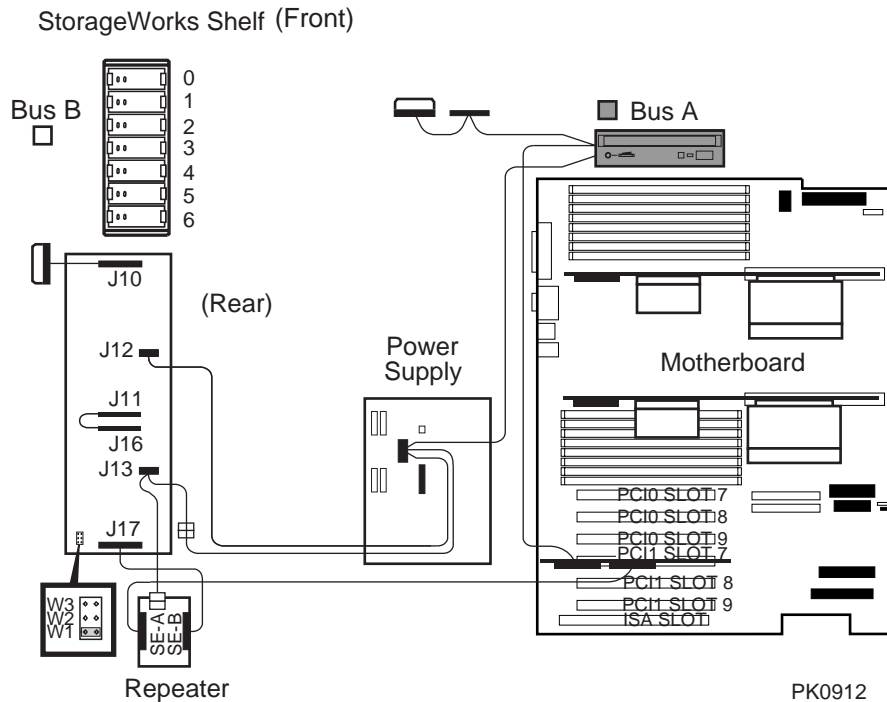
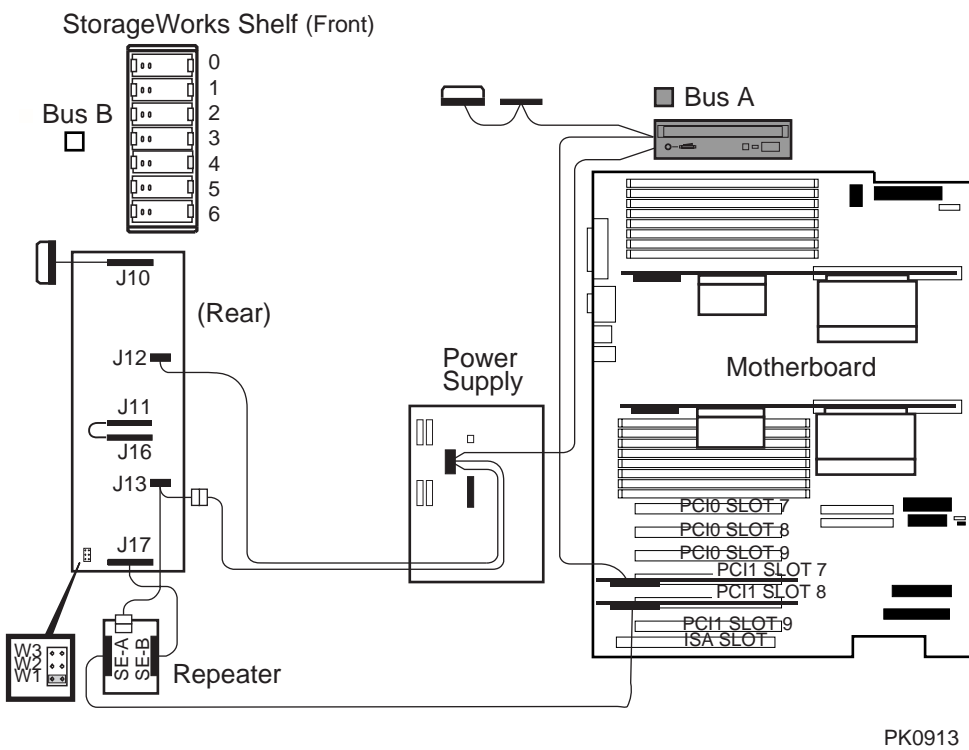


Figure 3 Single-Bus Configuration (Two Single-Channel Controllers)

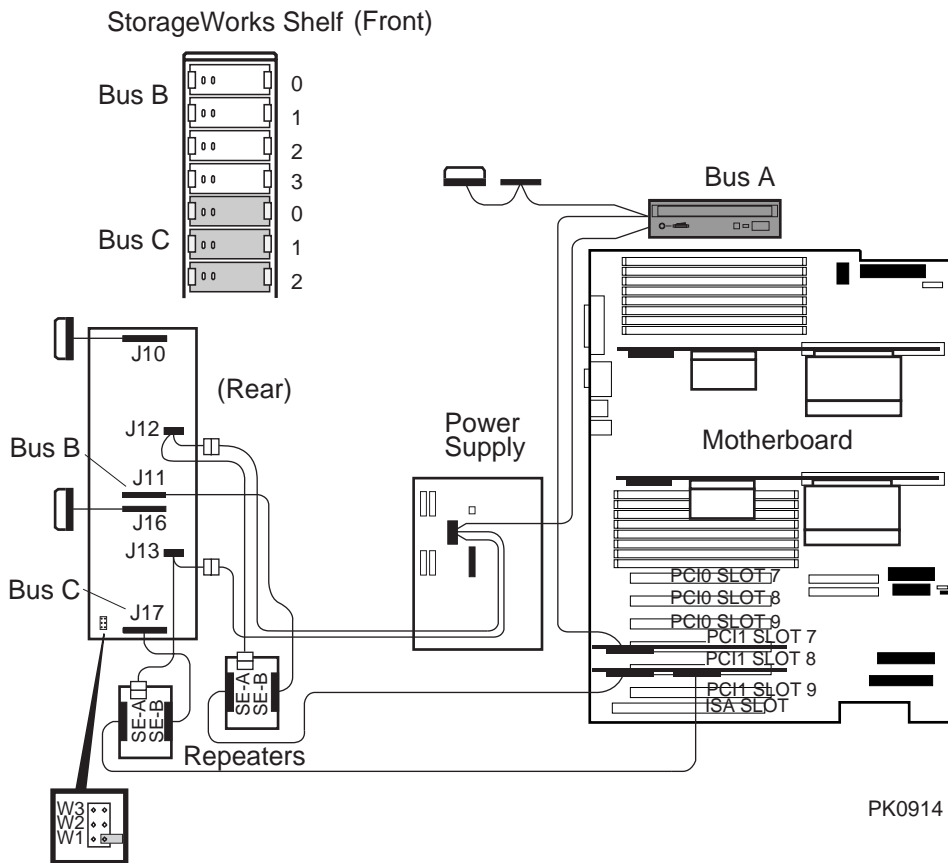


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Split Bus Configuration

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

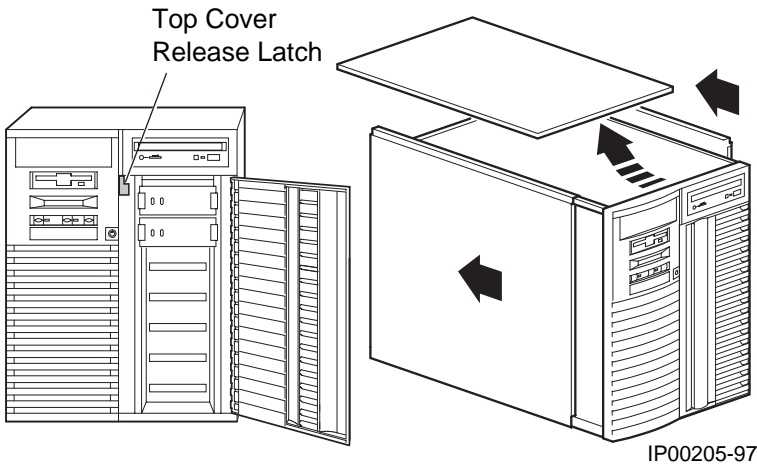


Converting to a Split Bus

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.

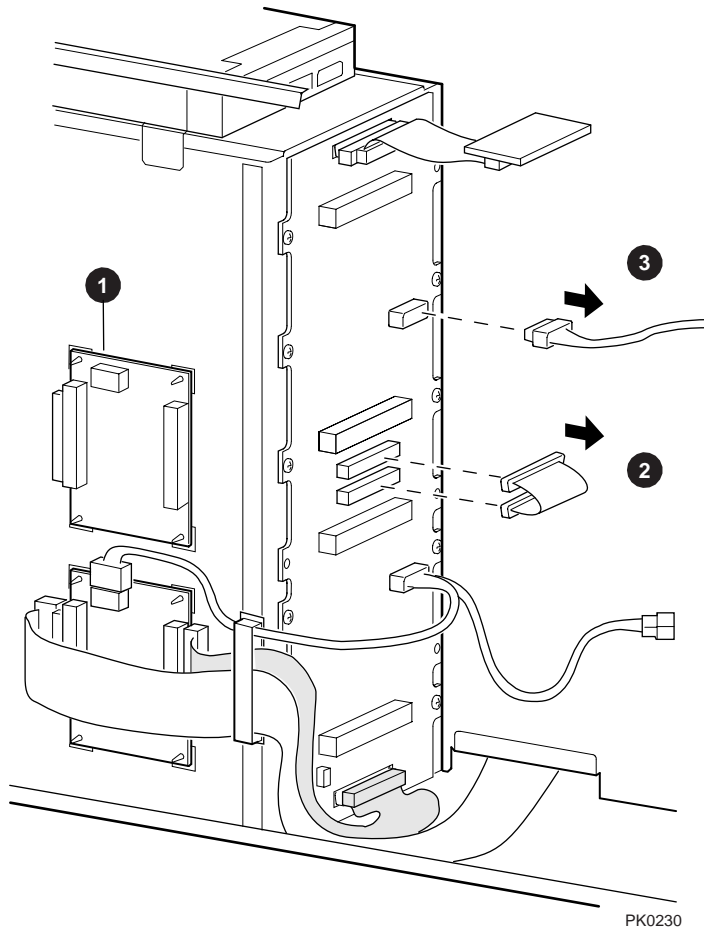
Figure 5 Removing Covers



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**.

Figure 6 Installing the Repeater Card



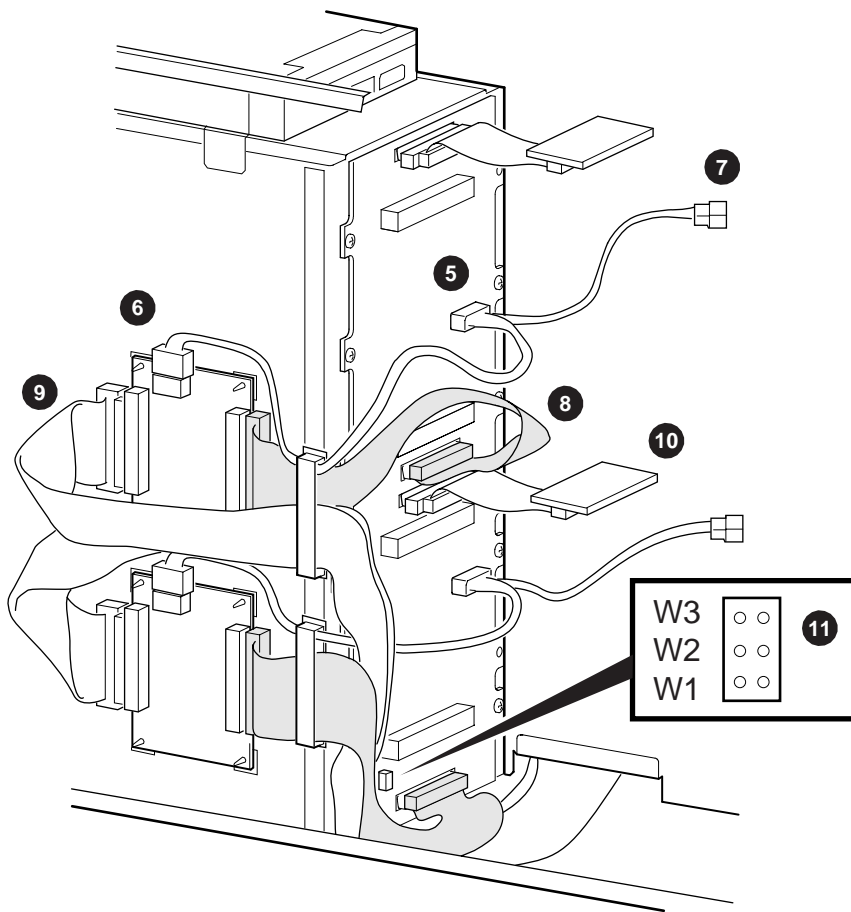
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Connecting the Cabling

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



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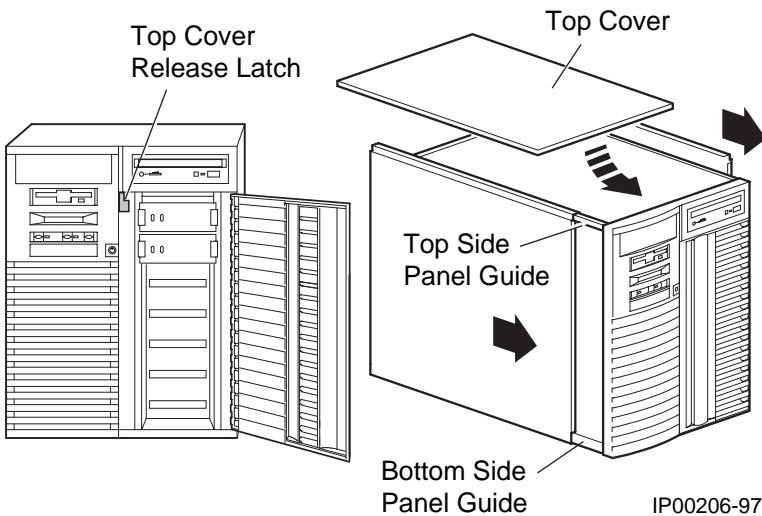
Replacing the Enclosure Covers

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
dka500.5.0.7.1    DKA500    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
pka0.7.0.7.1     PKA0      SCSI Bus ID 7 5.57
pkb0.7.0.8.1     PKB0      SCSI Bus ID 7 5.57
P00>>>
```

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