

Compaq StorageWorks

Read Me First

HSZ70 HSOFF V7.3 for Sun Solaris

Thank you for selecting the StorageWorks RAID Array 7000 or Enterprise Storage Array 10000. Our RAID subsystems are designed to support the most popular computer platforms in the industry. This requires that you purchase a platform specific HSZ70 Solutions Software kit that allows you to use the storage subsystem on your chosen platform.

With the purchase of this new Array we request that you fill out and return your registration card. Registration information is used by Compaq to provide notification services to its customers. If the registration card was omitted from your kit please contact 1-800-OK-COMPAQ. Compaq also maintains a WEB site that provides a timely source of Compaq StorageWorks product information at:

<http://www.compaq.com/storage>

The major components of this kit are:

- Departmental Cabinet (SW370)
- Dual or Single HSZ70 RAID controllers with 64MB mirrored write-back cache each (expandable to 128MB each)
- I/O expansion module
- Dual or single cache battery in SBB with cable
- 5 shelf power supplies optionally expandable to eight
- Fully redundant cooling
- Environmental Monitor Unit (EMU)
- 5 meter host to controller cable (BN37A-05)
- Serial line assembly
- Controller to controller SCSI cable for redundant controllers
- Host adapter cable (BN38E-0B)

IMPORTANT

Perform the following steps only if you are installing your RAID system to be used with VERITAS FirstWatch software.

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1. Verify System Requirements

Please verify that the high availability requirements listed in Table 1 are met.

Host Feature	Requirement
Platform	Two Sun SPARC host servers
Operating System	Sun Solaris, version 2.5.1, 2.6, or 2.7
Software	VERITAS FirstWatch high availability software (Version 2.2.4)
Storage System	StorageWorks RA7000 or ESA10000 RAID system
Controller Compatibility	Two StorageWorks HSZ70 controllers per RAID system, trinked, running operating firmware V7.3
Adapter Compatibility	Two Sun Sbus X1065A host adapters, (one per server) or Two Sun PCI X6541A host adapters, (one per server; Ultra Enterprise 450 only, Solaris 2.6, 2.7 only)

In addition to the above requirements, you will also need an additional SCSI Connection kit as well as the cables that are included with your RAID system.

Included with the RAID system:

- One BN37A-05 VHDCI UltraSCSI straight-through cable
- One BN38E-0B VHDCI-to-HD68-Pin Adapter

SCSI Connection Kits:

- SWXKT-EA Hub Connection Kit
- SWXKT-DE 68-Pin Host Adapter Connection Kit
- SWXKT-DF VHDCI Host Adapter Connection Kit

NOTES

1. All of the host features that are supported by the platform kit are also supported in the multi-host environment
2. The installation of a hub requires a 3.5" SSB slot available in your StorageWorks pedestal, or an additional storage shelf.

2 Perform System Backup

Before you begin, perform a full backup on each Sun host.

3 Prepare Host Adapters

To prepare the host adapters, on-board termination must be removed, if necessary, and each host must have a unique SCSI Target ID.

- If the SCSI host adapters are Sun *X1065A* (HD68-Pin) and the RAID system is not connected via a hub, the resistor packs (terminators) on-board the adapters must be removed. This procedure, in conjunction with installing a terminator on each external Y-cable, as shown in Step 5, permits UltraSCSI bus disconnection from a host server to occur without disrupting activity on the active UltraSCSI bus.

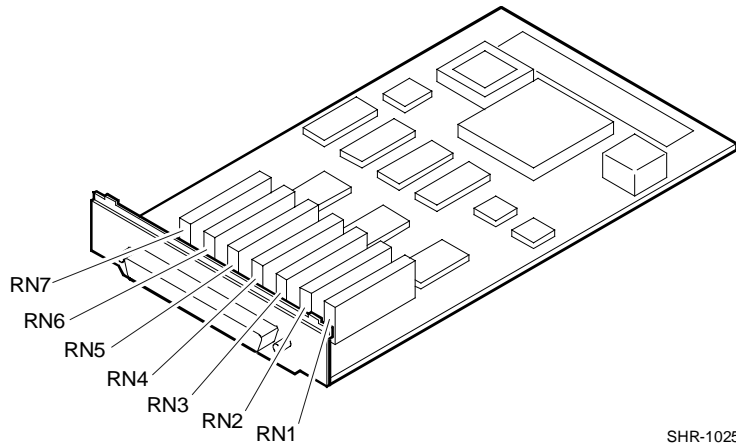
CAUTION

- Termination settings are determined automatically in Sun PCI X6541A (VHDCI) host adapters - there are no resistor packs to be removed.
- Do not remove host adapter resistor packs in hub-radiant RAID layouts.

Remove the resistor packs from X1065A host to deactivate on-board termination as follows:

1. Follow normal procedures to shutdown both servers.
2. If applicable, consult the system manual to remove the cover of the server cases and remove the X1065A host adapter boards from both host servers.
3. Use Figure 1 to locate the resistor packs on the host adapter boards.
4. Gently pull to remove resistors RN1 through RN7 from the host adapter boards.
5. Replace the host adapter boards into the servers.
6. Reboot the servers and refer to the following section to set unique SCSI host adapter IDs.

Figure 1 Resistor Pack Locations on Sun X1065A Host Adapters
(To be removed only if not connected via a hub)



- For all SCSI host adapters, (regardless of model or the configuration layout), unique SCSI host adapter IDs must be set to support high availability.

Change the SCSI host adapter ID on one (only) of your servers to an unused number as follows:

NOTE

Be sure to select a target id that is not in use by ANY device on the server

To view currently used SCSI target IDs, type the following at the Open Boot prompt:

```
ok probe-scsi-all
```

For example, if you are not using initiator ID number 5 on one server, type:

```
ok setenv scsi-initiator-id 5
```

4 Unpack and Setup the RAID System

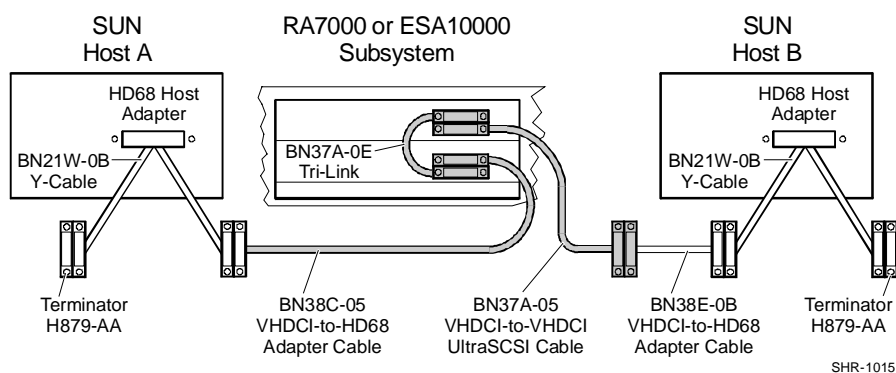
Refer to chapters 1 or 2 of the *Getting Started HSZ70 Installation Guide*, for unpacking and setup instructions

5 Cable/Connect and Terminate RAID System Components

HD68-Pin Host Adapter UltraSCSI Interconnect

To connect two Sun hosts equipped with HD68-pin host adapters with a RAID system, refer to Figure 2. This configuration requires kit SWXKT-DE. The components included in the kit are listed in Table 2.

Figure 2 HD68-Pin Host Adapter UltraSCSI Interconnect



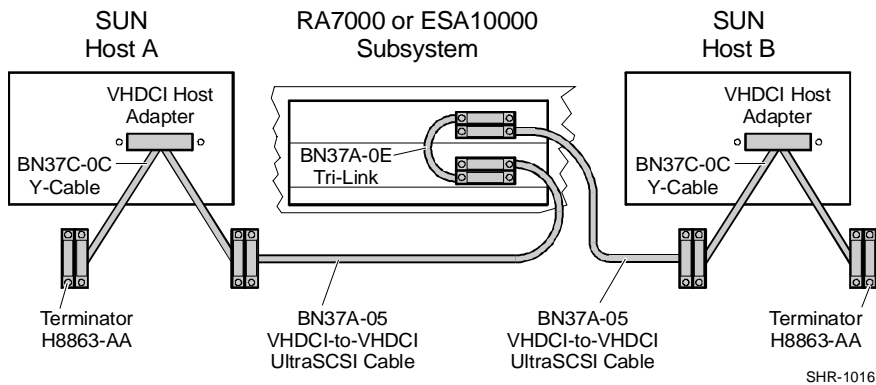
**Table 2
SWXKT-DE Kit Contents**

Description	Part Number	Quantity
HD68 Straight-thru Cable	BN21K-05	1
VHDCI-to-HD68 Adapter Cable, 5 meters	BN38C-05	1
HD68-pin Y-cable	BN21W-0B	2
HD68 M Differential Terminator	H879-AA	2

VHDCI Host Adapter UltraSCSI Interconnect

To connect Sun hosts equipped with VHDCI UltraSCSI host adapters with a RAID system, refer to Figure 3. This configuration requires kit SWXKT-DF. The components included in the kit are listed in Table 3.

Figure 3 VHDCI Host Adapter UltraSCSI Interconnect



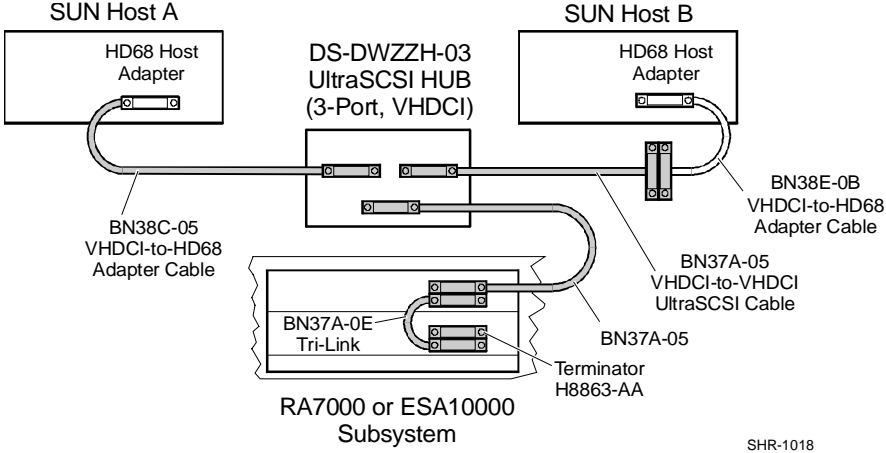
**Table 3
SWXKT-DF Kit Contents**

Description	Part Number	Quantity
VHDCI (UltraSCSI) Straight-thru Cable	BN37A-05	1
VHDCI-to-HD68 Adapter Cable, 5 meters	BN38C-05	1
VHDCI-to-HD68 Adapter Cable	BN38E-0B	1
VHDCI Y-cable	BN37C-0C	2
VHDCI M Differential Terminator	H8863-AA	2

HUB to HD68-Pin Host Adapter UltraSCSI Interconnect

To connect Sun hosts equipped with HD68-pin host adapters to a RAID system via use of a Hub, refer to Figure 4. This configuration requires kit SWXKT-EA. The components included in the kit are listed in Table 4.

Figure 4 Hub-Radiant RAID Subsystem and HD68-Pin Host Adapter UltraSCSI Interconnect



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NOTE

In hub configurations, termination is internal to the hub.

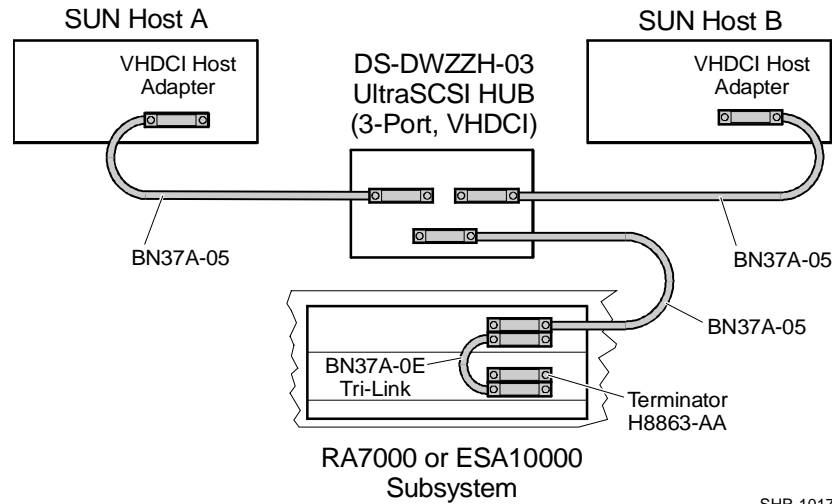
**Table 4
SWXKT-EA Kit Contents**

Description	Part Number	Quantity
VHDCI (UltraSCSI) Straight-thru Cable	BN37A-05	2
VHDCI-to-HD68 Adapter Cable, 5 meters	BN38C-05	1
VHDCI-to-HD68 Adapter Cable	BN38E-0B	2
3-port Differential Hub	DS-DWZZH-03	1

Hub to VHDCI Host Adapter UltraSCSI Interconnect

To connect two Sun hosts equipped with VHDCI host adapters to a RAID system via use of a Hub, refer to Figure 5. This configuration requires kit SWXKT-EA. The components included in the kit are listed in Table 4.

Figure 5 Hub-Radiant RAID Subsystem and VHDCI Host Adapter UltraSCSI Interconnect



NOTE

In hub configurations, termination is internal to the hub.

6 Install Command Console Agent Software

Refer to Chapter 4 of your *Getting Started HSZ70 Installation Guide* for agent instructions.

7 Create RAID Storage Configurations

Refer to Chapter 6 or 7 and Appendix B of your *Getting Started HSZ70 Installation Guide*.

8 Install and Configure VERITAS FirstWatch Software

See VERITAS (V2.2.4) documentation.

9 Configure Command Console Agent with FirstWatch

Refer to Section 4.3.2 of your *Getting Started HSZ70 Installation Guide* for instructions.