Installing the Single-Drive or Dual-Drive Assembly in the Sun Fire™ T1000 Server

Sun Microsystems, Inc.
www.sun.com

Part No. 819-6673-10
July 2006, Revision A

Submit comments about this document at: http://www.sun.com/hwdocs/feedback

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at http://www.sun.com/patents and one or more additional patents or pending patent applications in the U.S. and in other countries.

This document and the product to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of the product or of this document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any.

Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, docs.sun.com, OpenBoot, SunVTS, Sun Fire, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and in other countries.

All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and in other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

U.S. Government Rights—Commercial use. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, Californie 95054, États-Unis. Tous droits réservés.

Sun Microsystems, Inc. possède les droits de propriété intellectuels relatifs à la technologie décrite dans ce document. En particulier, et sans limitation, ces droits de propriété intellectuels peuvent inclure un ou plusieurs des brevets américains listés sur le site http://www.sun.com/patents, un ou les plusieurs brevets supplémentaires ainsi que les demandes de brevet en attente aux les États-Unis et dans d'autres pays.

Ce document et le produit auquel il se rapporte sont protégés par un copyright et distribués sous licences, celles-ci en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a.

Tout logiciel tiers, sa technologie relative aux polices de caractères, comprise, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit peuvent dériver des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux États-Unis et dans d'autres pays, licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, docs.sun.com, OpenBoot, SunVTS, Sun Fire, et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux États-Unis et dans d'autres pays.

Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux États-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface utilisateur graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox dans la recherche et le développement du concept des interfaces utilisateur visuelles ou graphiques pour l'industrie informatique. Sun détient une license non exclusive de Xerox sur l'interface utilisateur graphique Xerox, cette licence couvrant également les licenciés de Sun implémentant les interfaces utilisateur graphiques OPEN LOOK et se conforment en outre aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ÉTAT" ET TOUTES AUTRES CONDITIONS, DÉCLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES DANS LA LIMITE DE LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE À LA QUALITÉ MARCHANDE, À L'APTITUDE À UNE UTILISATION PARTICULIÈRE OU À L'ABSENCE DE CONTREFAÇON.

Please
Recycle

Adobe PostScript

Contents

Preparing for Servicing 1

Removing the Single-Drive Assembly 3

Installing the Drive Assembly 4

Installing the Single-Drive or Dual-Drive Assembly in the Sun Fire T1000 Server

This document describes the following procedures:

- How to upgrade the drive assembly in the server from a single-drive assembly to a dual-drive assembly
- How to install the single-drive assembly in a diskless Sun Fire™ T1000 server
- How to install the dual-drive assembly in a diskless server

Preparing for Servicing

1. **Shut down the system and remove the server from the rack.**

   Refer to the *Sun Fire T1000 Server Service Manual* for those instructions.

2. **Press the cover release button (**FIGURE 1**).**

3. **While pressing the release button, grasp the rear of the cover and slide the cover toward the rear of the server about one half inch.**

4. **Lift the cover off the chassis.**

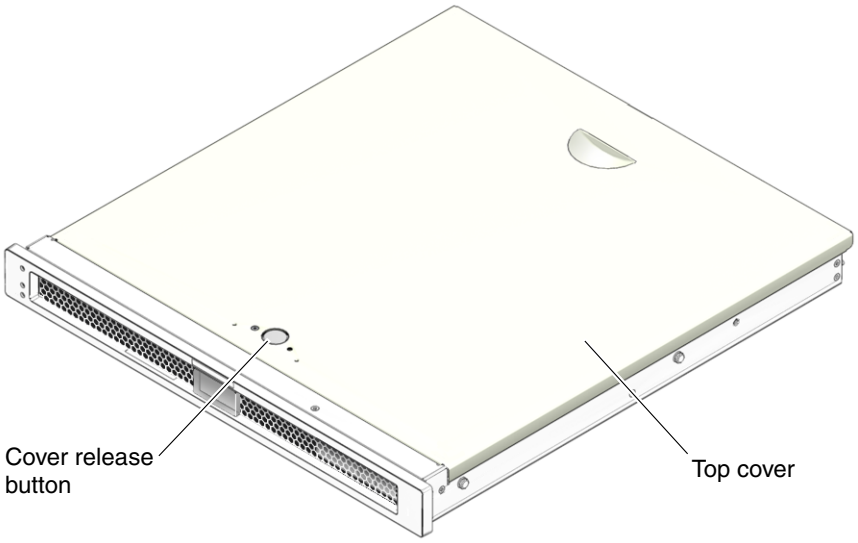

FIGURE 1 Location of Release Button on Top Cover

5. **Determine which procedure applies for your situation.**
   - If your server has a single-drive assembly and you want to upgrade to a dual-drive assembly, first go to "Removing the Single-Drive Assembly" on page 3, then go to "Installing the Drive Assembly" on page 4.
   - If your server does not have any hard drives installed, go to "Installing the Drive Assembly" on page 4.

Removing the Single-Drive Assembly

The procedure in this section describes how to remove the single-drive assembly from your server.

1. **Disconnect the drive cable from the data/power connector at the rear of the hard drive (FIGURE 2).**
2. **Pull the fasteners up on the rear of the single-drive assembly, and remove the single-drive assembly from the chassis (FIGURE 2).**

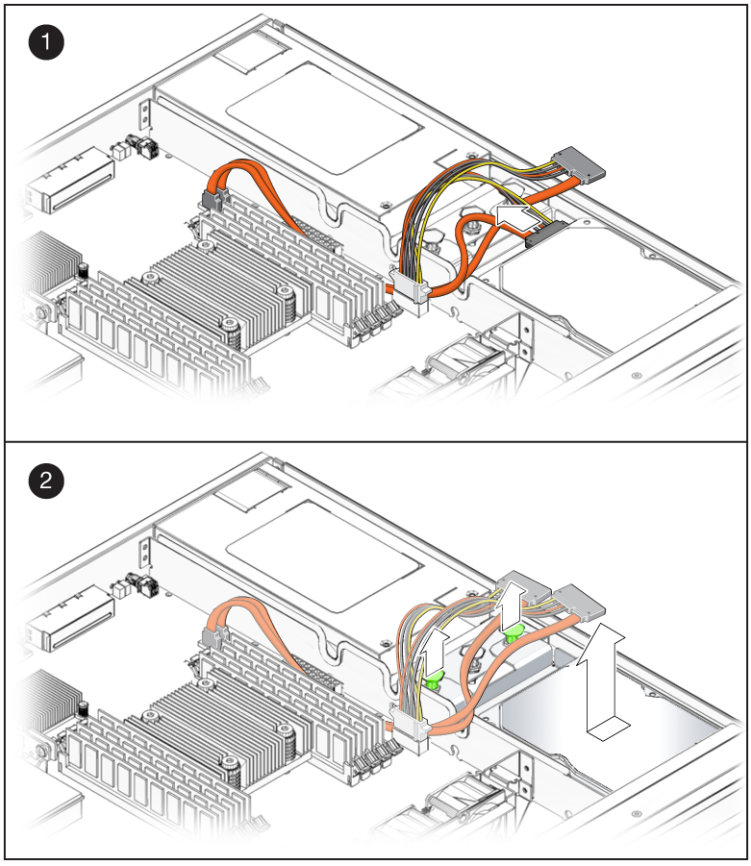

FIGURE 2 Removing the Single-Drive Assembly

Installing the Drive Assembly

The procedure in this section describes how to install either the single-drive assembly or the dual-drive assembly in the server.

1. **Unpack the drive assembly and the dual-drive cable.**

   The drive assembly should be shipped to you with one or two drives already installed in the assembly, depending on the type of drive assembly that you ordered.

2. **Disconnect the drive cable from the data and power connectors on the motherboard and remove the drive cable from your server (**FIGURE 3**).**

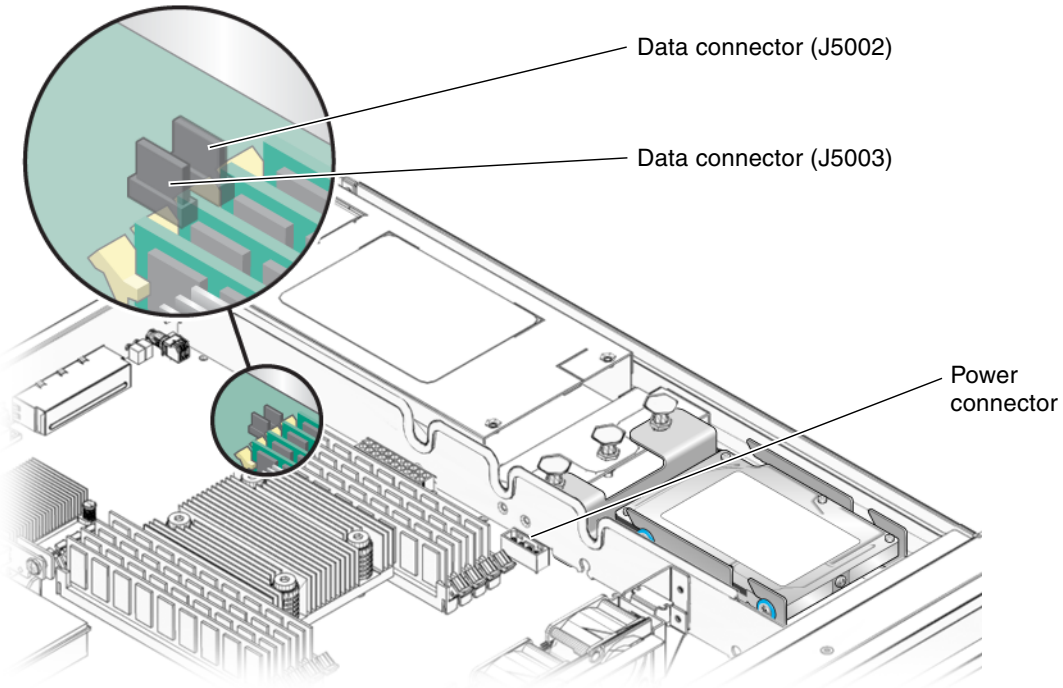

FIGURE 3 Location of Drive Power and Data Connectors on the Motherboard

3. **Get the dual-drive cable that was shipped with the new drive assembly.**

4. **Plug the drive connectors into the data/power connectors at the rear of the hard drives.**

Note – Make sure the connector is correctly oriented before plugging it into the data/power connector on the drives. When connecting the cable to the data/power connector on the lower drive in a dual-drive configuration, it may be easier to first remove the upper drive to get a clear view of the data/power connector on the lower drive.

- If you have a single-drive assembly, plug the *DRIVE 0* connector into the data/power connector at the rear of the drive.
- If you have a dual-drive assembly, make the following connections to the two drives:
  - Plug the *DRIVE 0* connector into the data/power connector on the *lower* drive.
  - Plug the *DRIVE 1* connector into the data/power connector on the *upper* drive.

5. **Slide the drive assembly into the chassis until it mates with the front of the chassis.**

FIGURE 4 shows a dual-drive assembly being inserted into the chassis. The process is the same for a single-drive assembly.

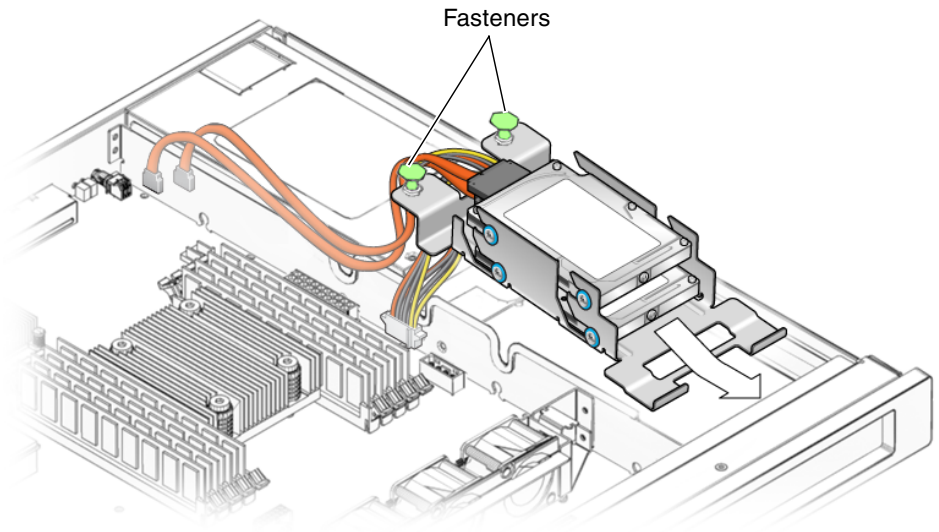

FIGURE 4 Installing the Drive Assembly

6. **Push the fasteners down to lock the drive assembly into place in the chassis (FIGURE 4).**

7. **Redress the cable through the midwall in the chassis.**

8. **Route the drive data cables underneath the power supply cable.**

9. **Plug the power connector on the dual-drive cable to the power connector on the motherboard (FIGURE 3).**

10. **Plug the data connector marked *J5003* on the cable to the J5003 data connector on the motherboard (the connector furthest from the power supply).**

    Refer to FIGURE 3 for the location of that connector.

11. **Plug the data connector marked *J5002* on the cable to the J5002 data connector on the motherboard (the connector closest to the power supply).**

    Refer to FIGURE 3 for the location of that connector.

12. **Place the top cover on the chassis.**

    Set the cover down so that the cover hangs over the rear of the server by about an inch (2.5 cm).

13. **Slide the cover forward until it latches into place.**

14. **Reinstall the server in the rack and apply power to the server.**

    Refer to the *Sun Fire T1000 Server Service Manual* for those instructions.

15. **Label the hard drives, if necessary.**

    - If you installed a *single*-drive 3.5-inch SATA drive assembly, then your hard drive should already be labeled. Go to Step 16.
    - If you installed a *dual*-drive 2.5-inch SAS drive assembly, then you must use the Solaris format utility to label the hard drives. Refer to the *Labeling Unlabeled Hard Drives* document for those instructions.

16. **Upgrade the drive controller firmware, if necessary.**

    If you have an older version of the drive controller firmware, then you must upgrade the drive controller firmware to get full support for mirroring and other RAID features.

    a. **Determine the version of the drive controller firmware installed on your server by entering the following command:**

```
# grep -i version /var/adm/messages
```

You should see output similar to the following:

```
Jun 7 13:23:16 wgs57-57 genunix: [ID 540533 kern.notice] SunOS Release 5.10
Version Generic_118833-08 64-bit
Jun 7 13:23:16 wgs57-57 mpt0 Firmware version v1.a.0.0 (IR)
```

- If you see the following output:
  - `Firmware version v1.`*`a`*`.0.0` or higher (for example, `v1.`*`b`*`.0.0`, `v1.`*`c`*`.0.0`, and so on), or
  - `Firmware version v1.`*`10`*`.0.0` or higher (for example, `v1.`*`11`*`.0.0`, `v1.`*`12`*`.0.0`, and so on)

  then you have the latest drive controller firmware. Go to Step 17.
- If you see the text `Firmware version v1.`*`6`*`.0.0` in the output, then you have an older version of the drive controller firmware. To upgrade the firmware:

a. Go to the Sunsolve website:

`http://www.sun.com/sunsolve/`

b. Search for the 123456-01 patch.

c. Download the patch to your server.

d. View the README file that came with the patch for instructions on installing the patch.

Once the patch has been installed, your system will have the latest drive controller firmware.

17. Perform the necessary administrative tasks to reconfigure the hard drive.

The procedures that you perform at this point depend on how your data is configured. You might need to partition the drive, create file systems, load data from backups, or have the data updated from a RAID configuration.