

Backplane Retention Bracket Installation Guide

This document explains how to install the backplane retention bracket in a system that exhibits misalignment between the HDD cage and its backplane. Typically, misalignment of a backplane to the HDD cage prevents hard drives from being fully inserted in the drive bays.

The backplane retention bracket is provided in two color-coded versions:

- Black retention bracket - Use this version in Sun SPARC Enterprise T5120/T5140 and Sun Fire X4140/X4150 systems. These brackets also have the letter “J” stamped on them.
- Gray retention bracket - Use this version in Sun SPARC Enterprise T5220/T5240 and Sun Fire X4240/X4440/X4450 systems. These brackets also have the letter “E” stamped on them.

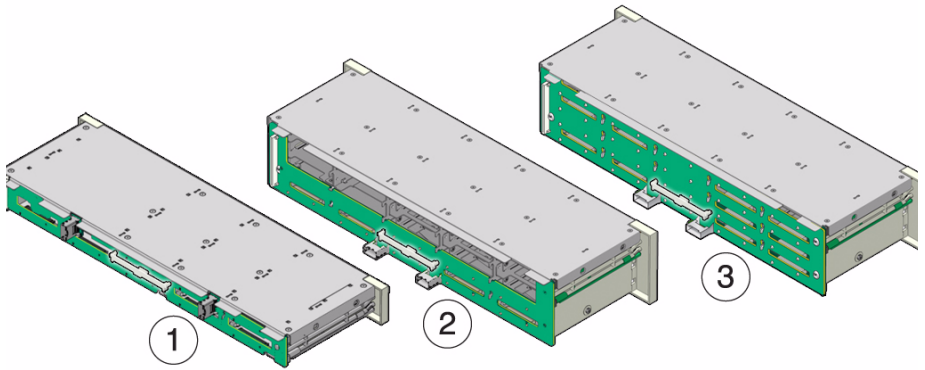
Preliminary Notes

The retention bracket consists of a horizontal bar with an alignment pin at each end and a retainer clip in the center. Its purpose is to maintain alignment between a backplane and the HDD cage to which it is attached. The following is a summary of its use:

1. **The installer forces alignment between the backplane and the HDD cage by hand.**
2. **The installer then installs the bracket so that the alignment pins fit into corresponding slots in the backplane and the retainer clip snaps home.**

FIGURE 1 shows where the retention bracket is installed in the three different backplane configurations.

FIGURE 1 Retention Bracket Location



The alignment procedure described below requires the HDD cage and backplane to be removed from the server and placed on a stable work surface. See the documentation for your server that contains instructions for removing the HDD cage and backplane.

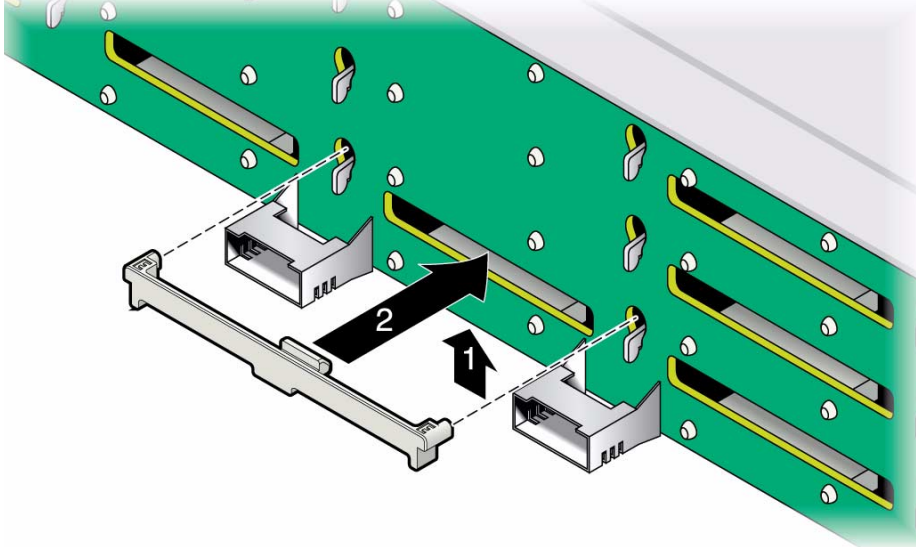


Caution – Follow the safety instructions described in the service manual. In particular, be certain to disconnect the power cables from the server.

Alignment Procedure

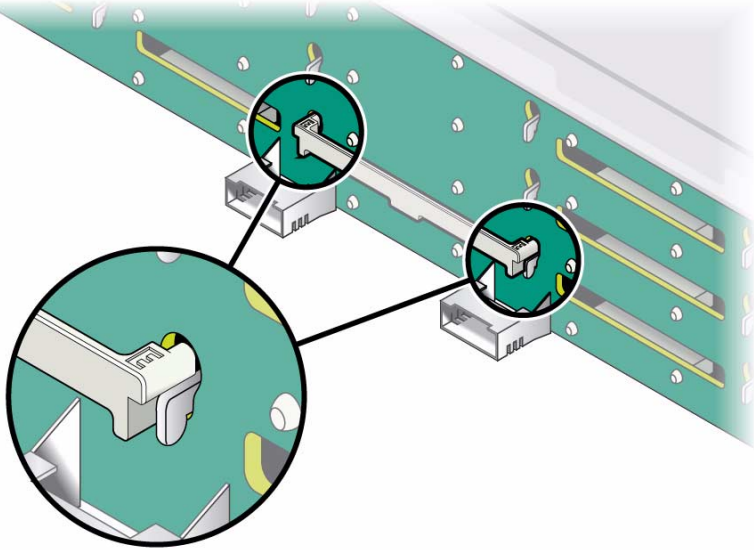
1. With the backplane attached to the disk cage, push upward on the bottom edge of the backplane. See [FIGURE 2](#).

FIGURE 2 Area on Backplane to Push Up



2. While keeping upward pressure on the backplane, press the retainer against the backplane, with the pins in line with the slots just above the metal tabs (see [FIGURE 2](#)).
3. When you feel the retainer clip snap home, release the backplane. The ends of the alignment retainer should rest on top of the metal tabs (see [FIGURE 3](#)).

FIGURE 3 Alignment Retainer Resting on Disk Cage Tabs



4. **Push the snap area of the retainer so it engages with the backplane (see [FIGURE 3](#)).**
5. **Install the hard drive or drives that you were unable to install previously.**
If you can fully seat the drives, the alignment procedure was successful. Continue to [Step 6](#).
If unsuccessful, perform the procedure described in the section "[Alternative Alignment Procedure](#)".
6. **Reinstall the HDD cage assembly in the server, reinstall the server in the rack, and restore the server to service.**
Refer to your system's service manual for instructions on the procedures.

Alternative Alignment Procedure

If the preceding procedure does not solve the alignment problem, perform the following steps:

1. **Loosen the No. 1 Phillips screws that secure the backplane to the disk cage.**

Note – Loosen the screws just enough to allow the backplane to slide against the disk cage (approximately one turn).

2. **Hold the backplane against the disk cage and insert an SSD into a drive bay so that it engages the connector on the backplane.**

Note – The goal of this step is to use the SSD-to-connector mating to bring the backplane and disk cage into alignment.

3. **While keeping pressure on the backplane, tighten the screws.**
4. **Try installing the hard drive(s) again.**
5. **If you are able to install the hard drives, install the retention bracket as described in the section ["Alignment Procedure"](#).**

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