

Origin™ Vault Power Switch Upgrade Installation Guide

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About This Guide

The Origin Vault power switch upgrade provides hard power switch capability. The switch in this upgrade retains an on or an off setting (push on, push off); the original switch did not automatically return power to the system once power was returned from a power outage.

This guide contains instructions for preparing the Origin Vault rackmounted enclosure or standalone tower for the component replacement, installing the replacement power button plate for the side-hinged door of an Origin Vault expansion option mounted in an Origin2000 Rack or P-S-RACK, and exchanging the controller board assembly. It also explains the functional differences between the original Origin Vault power switch and the replacement power switch.

Audience

This guide is written for owners and users of the Origin Vault expansion option.

Structure of This Guide

This guide contains the following chapters:

- Chapter 1, “Upgrade Kit Contents,” describes the components included in the upgrade kit.
- Chapter 2, “Replacing the Origin Vault Controller Board,” explains how to prepare the Origin Vault for the component replacement, how to install the replacement power button plate for the side-hinged door of an Origin Vault expansion option mounted in an Origin2000 Rack or P-S-RACK, and how to replace the controller board assembly.
- Chapter 3, “Power Switch Functionality,” describes power switch function and explains the differences between the original Origin Vault power switch and the replacement power switch.

Other Documentation

If you do not have your *Origin Vault Owner's Guide* (007-3455-002 or later) handy, you can get it and other Silicon Graphics documentation online in the following locations:

- IRIS InSight Library: from the Toolchest, choose Help > Online Books > SGI EndUser or SGI Admin, and select the applicable owner's or hardware guide.

Once you are in the library, choose Catalogs > Hardware Catalog > and look under Owner's Guides for the applicable owner's guide.

- Technical Publications Library: If you have access to the Internet, enter the following URL in your Web browser location window:
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Upgrade Kit Contents

Besides these instructions, the upgrade kit for the Origin Vault power switch contains:

- Grounding strap
- Replacement controller board assembly
- Replacement power button plate

Figure 1-1 shows these components.

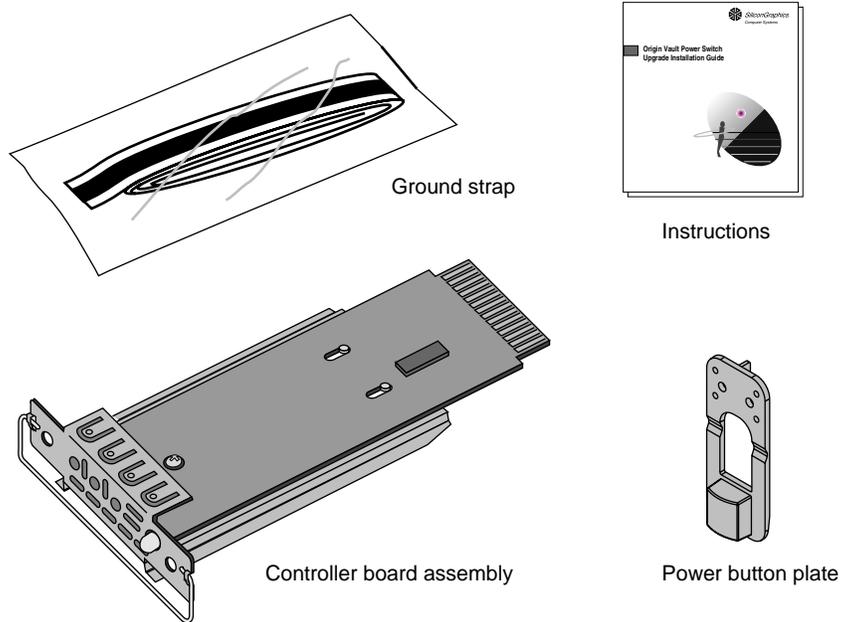


Figure 1-1 Upgrade Kit Contents

The replacement controller board is identical to the original Origin Vault controller board except for a redesigned power switch. This switch retains an on or an off setting (push on, push off) for automatic reboot when power is restored to the system after a power failure. The controller board also has a longer front panel to accommodate a bale for board removal.

The power button plate in the kit accommodates the power switch on the controller board and the controller board's longer front panel. It replaces the power button plate on the side-hinged door for the Origin Vault option mounted in an Origin2000 Rack or P-S-RACK.

Note: If the Origin Vault expansion option is mounted in a third-party 19-inch rack, the faceplate is different and has a bottom-hinged door; there is no change to that assembly for the new power switch functionality. Likewise, there is no change to the door assembly for an Origin Vault standalone tower.

Replacing the Origin Vault Controller Board

This chapter consists of the following sections:

- “Preparing the Origin Vault Expansion Option for Component Replacement” on page 3
- “Replacing the Power Button Plate on the Side-Hinged Door” on page 7
- “Replacing the Controller Board Assembly” on page 8

This procedure requires:

- #2 Phillips screwdriver
- Flat-blade screwdriver
- Grounding strap (included in the upgrade kit)

Preparing the Origin Vault Expansion Option for Component Replacement

Follow the steps in this section to prepare the Origin Vault rackmounted enclosure or standalone tower for component replacement.

1. Have ready the replacement components:
 - Controller board assembly
 - For a rackmounted Origin Vault option, front panel
2. Make sure that no users are using the data stored in the Origin Vault expansion option. Check the status LEDs for each drive to make sure they are not active. If appropriate, follow proper shutdown procedures for the host to which the Origin Vault is cabled.
3. Turn off the power button at the front; the LED goes dark.
4. Turn off the master power switch at the rear of the Origin Vault expansion option.
5. Detach the power cable from the Origin Vault expansion option.

6. If the Origin Vault is padlocked, unlock it; see “Locking the Origin Vault Expansion Option” in Chapter 3 of the *Origin Vault Owner’s Guide*.
7. For the tower, or for a rackmounted Origin Vault option with the bottom-opening door, open the door and remove the crossbar, as shown in Figure 2-1. Set the crossbar aside.

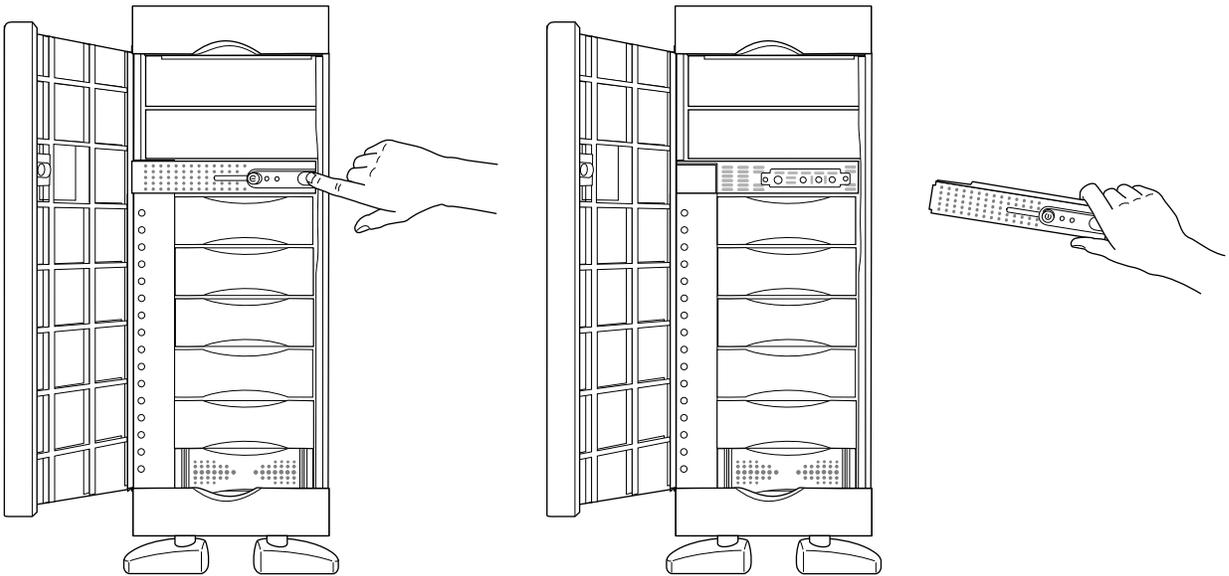


Figure 2-1 Removing the Crossbar (Origin Vault Standalone Tower)

For a rackmounted Origin Vault option with the side-opening door, remove the faceplate:

- Remove the door by pulling it off the hinges (see Figure 2-2). Lay the door on a work surface.
- Pry off the end cap at the right end of the faceplate (see Figure 2-2).

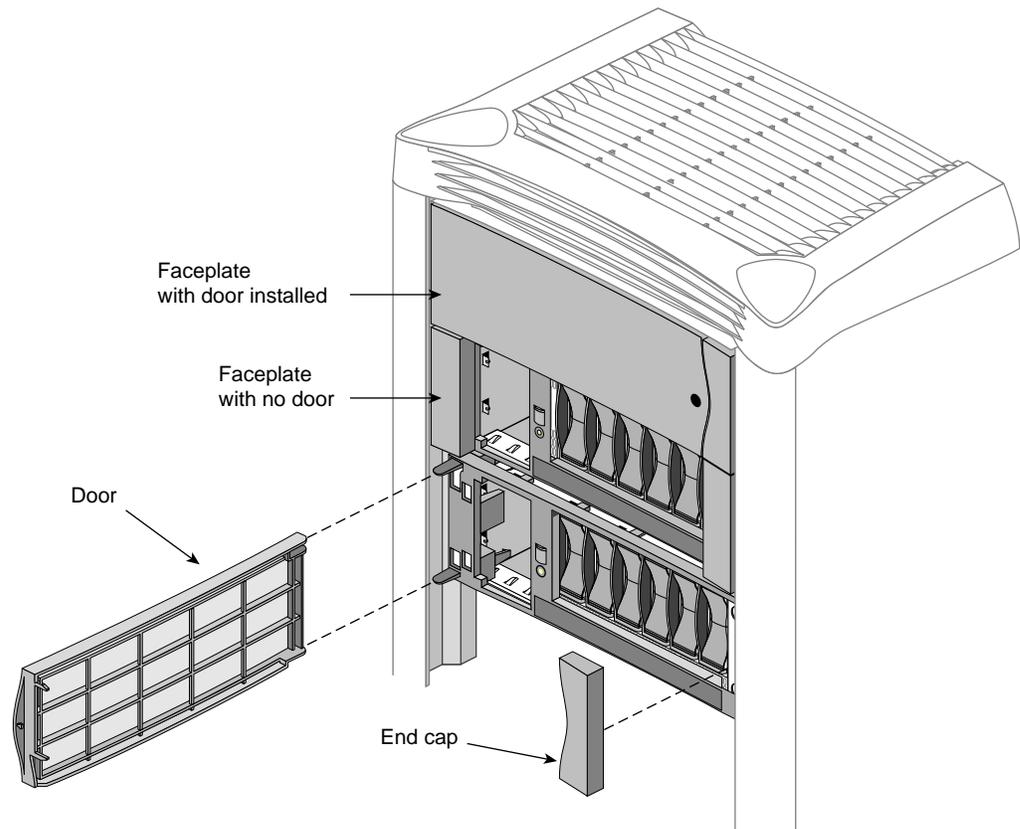


Figure 2-2 Removing the Faceplate: Origin2000 Rack

- Pry the faceplate out of the brackets at the sides of the rack; you might need a flat-blade screwdriver for this operation. See Figure 2-3.

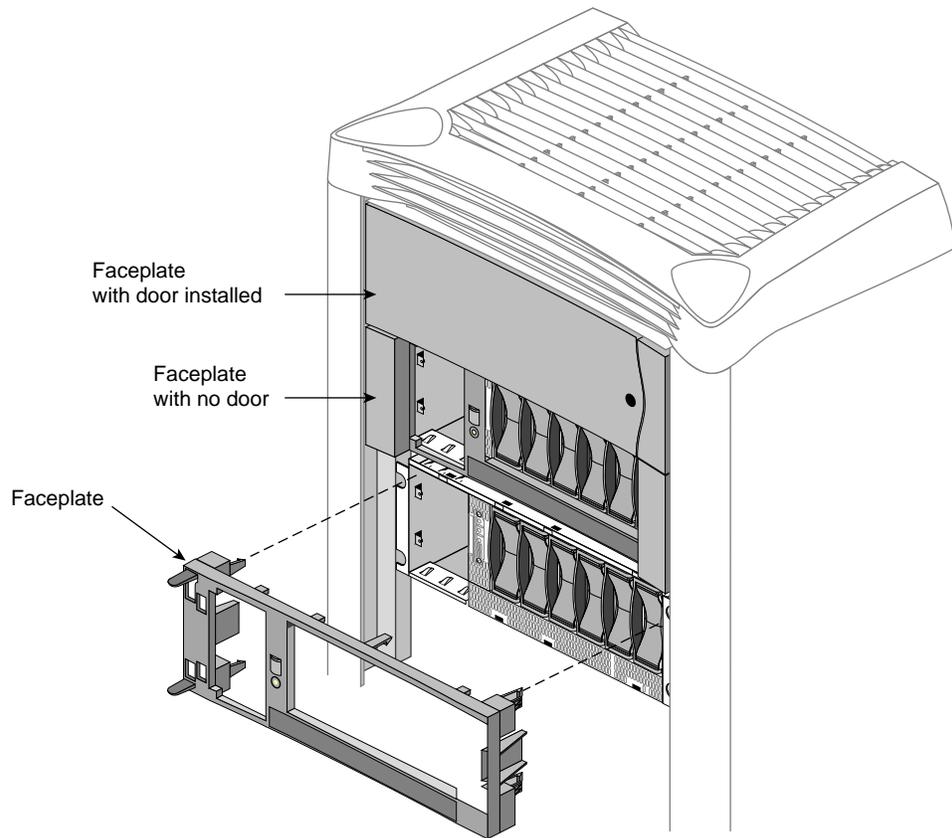


Figure 2-3 Removing the Faceplate: Origin2000 Rack

Replacing the Power Button Plate on the Side-Hinged Door

The upgrade kit includes a plastic power button plate that accommodates the redesigned power switch on the controller board.

With the door on a work surface, insert a flat-blade screwdriver at the top edge of the original plastic power button plate to pry it off, as shown in Figure 2-4. Discard this assembly; it is not factory-returnable.

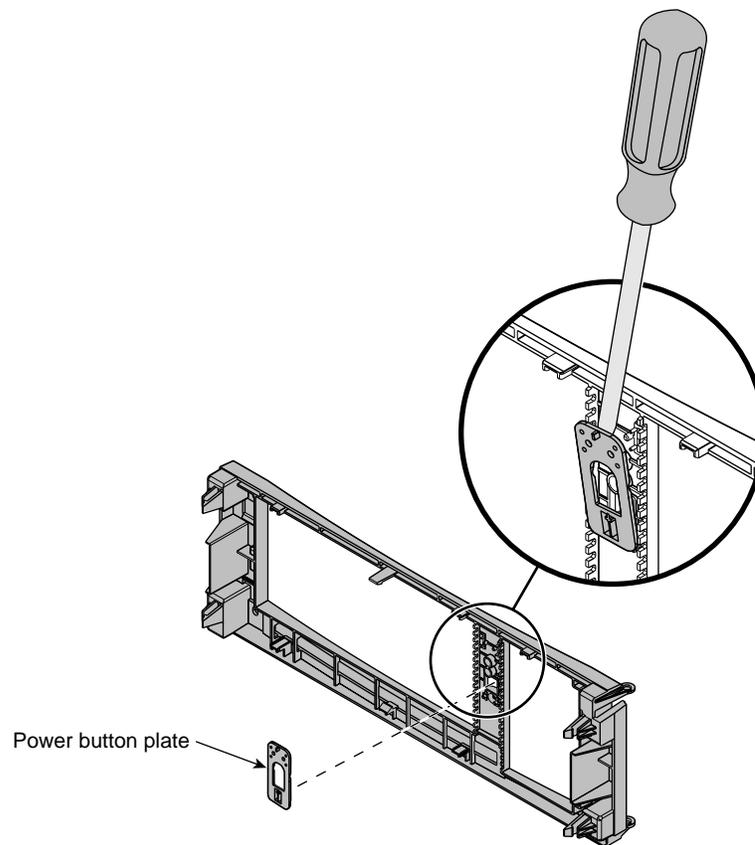


Figure 2-4 Replacing the Power Button Plate

Attach the new power button plate; it snaps on.

Replacing the Controller Board Assembly

To remove the controller board assembly, follow these steps:

1. Ground yourself with a wrist strap: attach the clip to the metal frame of the chassis.
2. Unscrew the two screws that secure the controller board carrier to the front of the chassis, as shown in Figure 2-5.

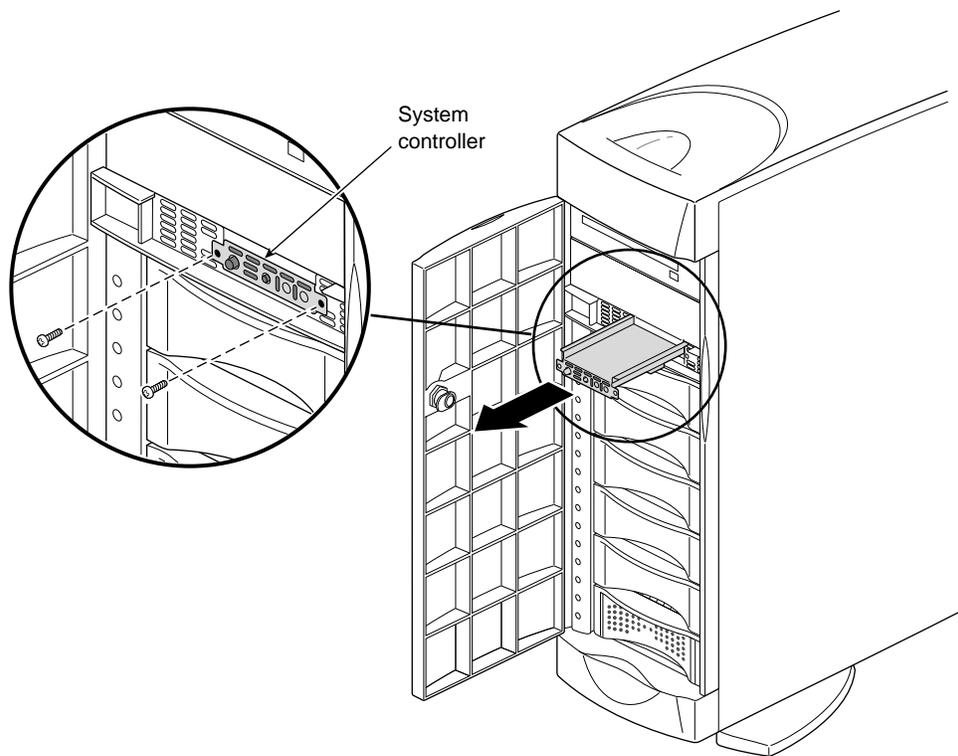


Figure 2-5 Detaching the System Controller Carrier From the Front of the Chassis

3. Pull out the controller board assembly. You can save it or discard it; it is not factory-returnable.

4. If desired, remove disk modules 5 and 6 (or blanking plates if no disks are installed) so that you can see the socket in the backplane into which the controller board's edge connector must go. If necessary, label the disks so that they are reinserted into the correct drive bays.

5. Insert the new controller board assembly into its bay. If necessary, guide the board's edge connector into the socket. The assembly installs in one direction only.

Caution: Grasp the sides of the board only; do not touch the edge connector.

When the edge connector is fully seated in the socket, the carrier should be flush with the front of the chassis.

6. Screw in the two screws that secure the controller board carrier to the front of the chassis, as shown in Figure 2-5.

7. If you removed disk modules (or blanking plates), replace them in their drive bays.

8. For an Origin Vault standalone tower, replace the crossbar and close the door.

If the Origin Vault option has a side-hinged door:

- Reattach the faceplate by plugging it into the holes in the U-shaped mounting ears.
- Reattach the door and end cap.

9. Reattach the power cable. Power on the Origin Vault expansion option by turning on the master power switch at the rear and then pushing the power button at the front; the LED illuminates. If appropriate, restart the host to which the Origin Vault expansion option is cabled.

Power Switch Functionality

The Origin Vault expansion option has both a main (master) power switch at the rear and a power button in the front, as shown in Figure 3-1.

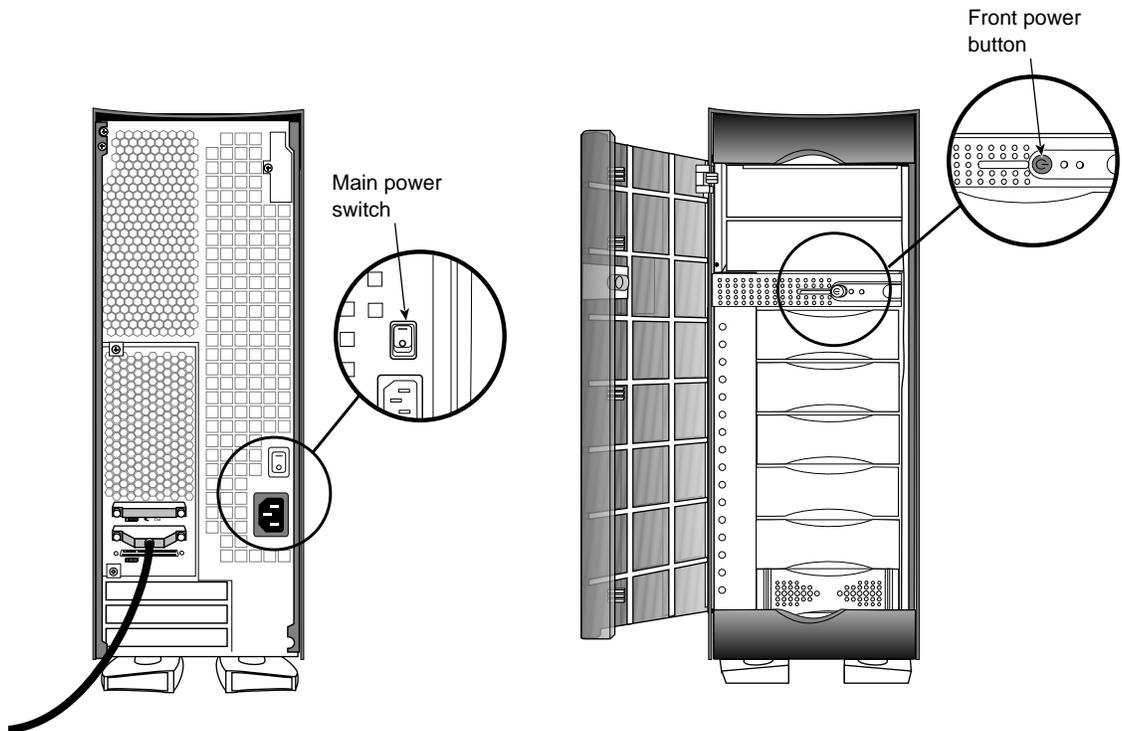


Figure 3-1 Main Power Switch (Circuit Breaker) and Power Button

To power on the Origin Vault expansion option, you turn on the main power switch at the rear and then press the power button on the front. On the replacement controller board assembly, the front power button remains depressed after you press it (the on position); the original Origin Vault power switch was a momentary on/off switch.

To power off the Origin Vault expansion option, you press the front power button, which comes (and remains) out, and then you turn off the main switch at the rear. Pressing the power button at the front is a soft power-off. Residual power is still supplied to the unit as long as the main power switch at the rear is on. The main power switch is a circuit breaker that cuts off all power to the Origin Vault system.

If you turn off the main switch and do not press the power button at the front, the Origin Vault system immediately powers back on when you turn the main switch back on. The system stores the state of the front power switch independently of the main power switch so that when power is restored after a power failure, the system immediately powers back on.

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