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# Nvidia Quadro FX5800 graphics card and auxiliary power adapter cable installation

## Introduction

This document describes how to install an Nvidia Quadro FX5800 graphics card and an auxiliary power adapter cable in HP xw8600 Workstations and HP xw9400 Workstations.

## Kit contents

- FX5800 graphics card
- Auxiliary power adapter cable
- Card support bracket
- Fan for HP xw8600 Workstation
- Warranty

## Before you begin

Visit <http://www.hp.com/go/productbulletin> to view QuickSpecs and determine the compatibility of this product with your HP workstation.

Before installing an Nvidia FX5800 Quadro graphics card, ensure the following criteria are met:




- System must contain a 1050 Watt power supply minimum.
- System memory cannot exceed 32 GB with dual FX5800 cards (HP xw8600 Workstation).
- System cannot contain Dual FSB1600/ Quad core processors with dual FX5800 cards (HP xw8600 Workstation).



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## Warnings and cautions

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- ⚠ **WARNING!**  Any surface or area of the equipment marked with this symbol indicates the presence of a hot surface or hot component. If this surface is contacted, the potential for injury exists. To reduce the risk of injury from a hot component, enable the surface to cool before touching.
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- ⚠ **WARNING!**  Any surface or area of the equipment marked with this symbol indicates the presence of an electrical shock hazard. To reduce the risk of injury from electrical shock, do not open any enclosed area marked with this symbol.
- 
- ⚠ **WARNING!** To reduce the risk of electric shock or damage to your equipment:
- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
  - Plug the power cord in a grounded (earthed) outlet that is easily accessible at all times.
  - Disconnect power from the equipment by unplugging the power cord from the electrical outlet.
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- ⚠ **WARNING!** To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation setup, posture, health, and work habits for computer users, and provides important electrical and mechanical safety information. This guide is located at <http://www.hp.com/ergo> and on the documentation CD (if one is included with the product).
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- ⚠ **WARNING!** If a product is shipped in packaging marked with this symbol, , the product must always be lifted by two persons to avoid personal injury due to product weight.
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- ⚠ **CAUTION:** Static electricity can damage the electronic components of the workstation. Before beginning these procedures, be sure you discharge static electricity by briefly touching a grounded metal object.
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- ⚠ **CAUTION:** Observe the following cautions when removing or replacing a processor:
- Installing a processor incorrectly can damage the system board. Contact an HP authorized reseller or service provider to install the processor. If you plan to install the processor yourself, read all of the instructions carefully before you begin.
  - Failure to follow the workstation preparation instructions can result in an improperly installed processor, causing extensive workstation damage.
  - Processor socket pins are delicate and bend easily. Use extreme care when placing the processor in the socket.
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△ **CAUTION:** To prevent damage to the workstation, observe the following Electrostatic Discharge (ESD) precautions while performing the system parts removal and replacement procedures:

— Work on a static-free mat.

— Wear a static strap to ensure that any accumulated electrostatic charge is discharged from your body to the ground.

— Create a common ground for the equipment you are working on by connecting the static-free mat, static strap, and peripheral units to that piece of equipment.

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 **NOTE:** HP accessories are for use in HP Workstation products. They have been extensively tested for reliability and are manufactured to high quality standards.

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## Step 1—Preparing the workstation

To prepare the workstation for component installation:

1. Power down the workstation.
2. Disconnect power from the workstation.
3. Open the access cover.

For product-specific information, refer to the service guide for your HP workstation at [http://www.hp.com/support/workstation\\_manuals](http://www.hp.com/support/workstation_manuals).

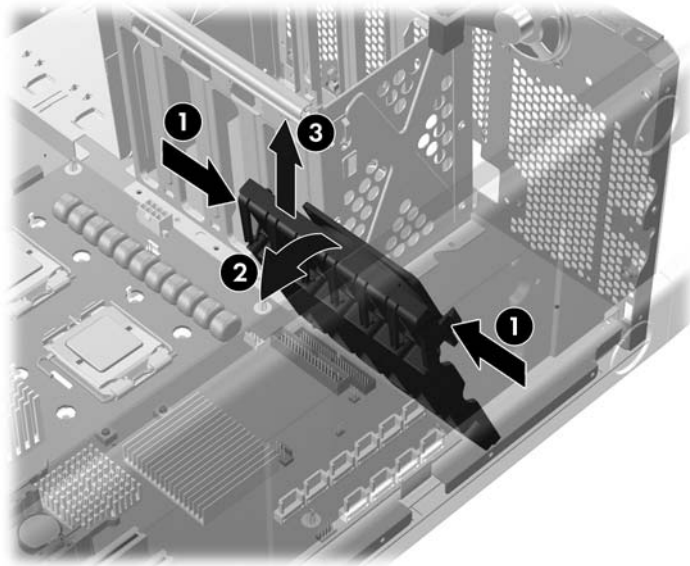
## Step 2—Installing the front PCI fan in the HP xw8600 Workstation

**NOTE:** This step applies only to the HP xw8600 Workstation. Go to Step 3 for other workstations.

**CAUTION:** To prevent overheating your HP xw8600 Workstation, a front PCI fan is required when installing the Nvidia Quadro FX5800 graphics card. If your HP xw8600 Workstation includes dual high performance graphics cards and lacks a front PCI fan, the BIOS detects an illegal cooling configuration error at boot up and reports that the front PCI fan is missing.

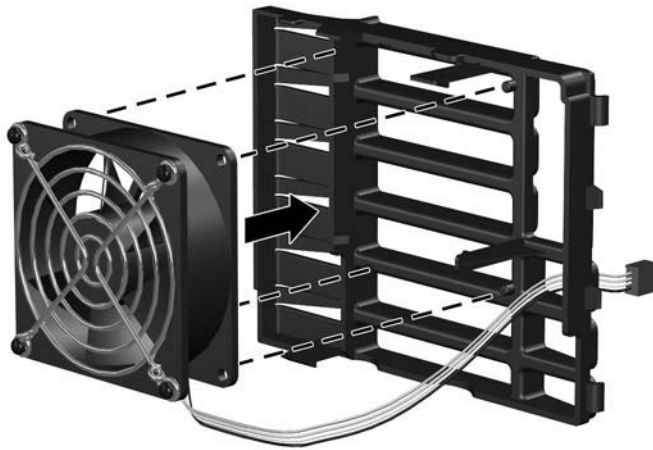
1. Remove the card guide from the chassis. Release the two card guide latches **1**. Pivot the card guide toward the system board **2**, and lift it out of the chassis **3**.

**Figure 1** Removing the card guide from the chassis



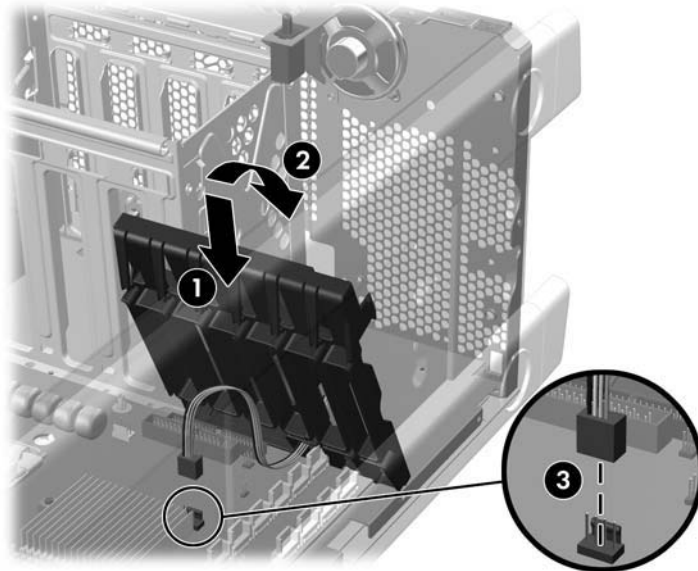
2. Attach the front fan to the card guide. Place the fan in the card guide with the fan label facing into the card guide and the fan protector screen facing outward. Place the fan wire through the slot in the card guide. Snap the fan into place in the card guide.

**Figure 2** Attaching the front fan to the card guide



3. Lower the front fan/card guide assembly into the chassis **1**, rotate it back **2**, and snap it into place. Connect the front fan wire connector to the front fan connector on the system board **3**. Refer to the service label on the workstation access panel to identify the front fan connector on the system board.

**Figure 3** Installing the front fan/card guide assembly in the chassis

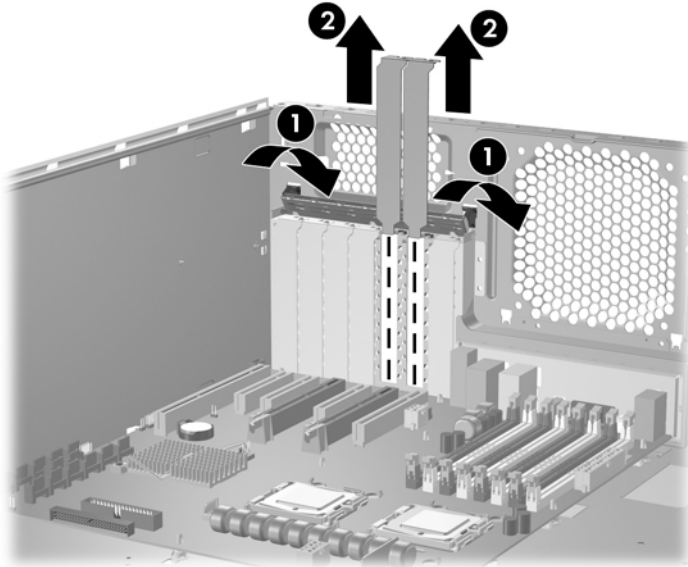


## Step 3—Installing the FX5800 graphics card

**NOTE:** The FX5800 graphics card occupies two slots on the system board. HP recommends that you place the keyed components of the card in the primary graphics slot. To identify PCI Express slots, refer to the service label on your workstation access panel.

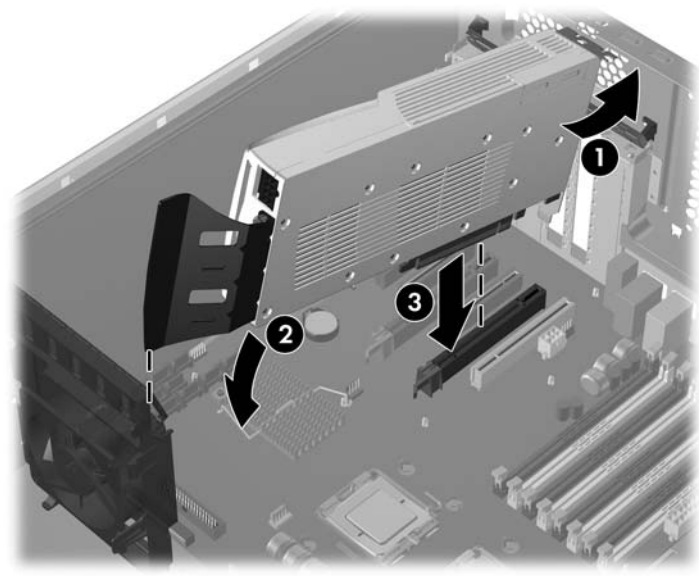
1. Release the PCI retainer levers by pressing down, then out **1**. Remove the applicable PCI slot covers **2**.

**Figure 4** Opening the retainer and removing the slot covers



2. Install the FX5800 graphics card in the workstation. The FX5800 graphics card fits in a card guide. While lowering the card into the chassis, rotate the graphics card bulkhead under the rear chassis lip **1**, and align the card in a groove of the card guide **2**. Rotate the card until level then press securely into the PCI slot **3**.

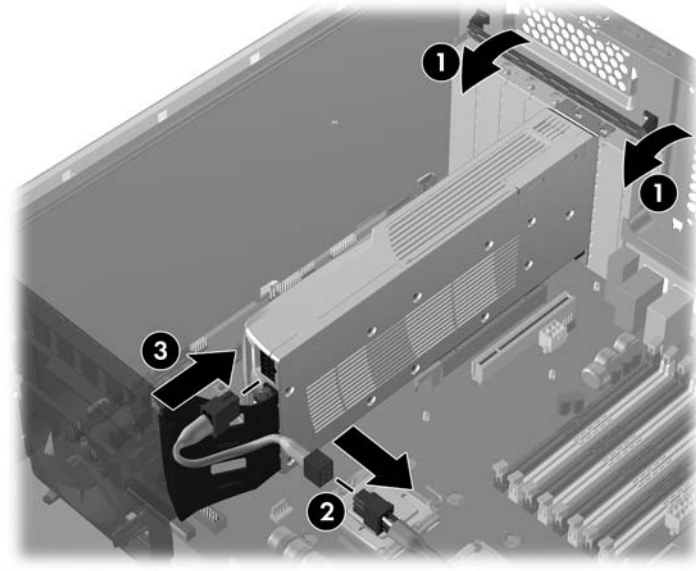
**Figure 5** Aligning and installing the FX5800 graphics card



## Step 4—Installing the auxiliary power adapter cable

After the FX5800 is seated in the slot, close the PCI retainer levers to secure the card ❶. Connect the auxiliary power adapter cable to the power supply ❷ and to the FX5800 card ❸.

**Figure 6** Installing the power adapter cable

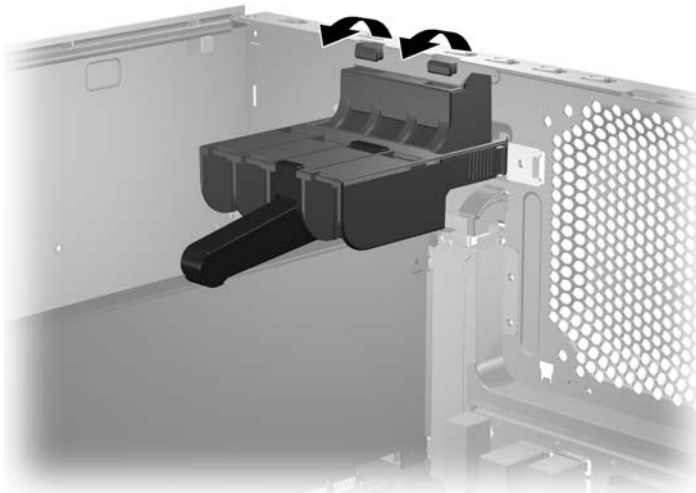


## Step 5—Installing the card support

To limit card movement in the chassis, install a card support. Hook the card support tabs in the notches under the chassis lip, then push down on the card support to lock it into place.

**NOTE:** Your card support might look different. The following figure is for illustration purposes only.

**Figure 7** Installing the card support bracket



## Step 6—Reassembling the workstation

After installation, reassemble the workstation using the instructions in the workstation documentation. The reassembly process includes reinstalling the side access panel and restoring power to the workstation.

## Step 7—Configuring the software

See the manufacturer's documentation shipped with the Nvidia FX5800 Quadro graphics card for instructions on loading and setting up the graphics drivers. HP recommends you download the latest drivers for your workstation model from <http://www.hp.com/go/workstationsupport>.