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HP J3420B HP-HSC ATM/155 Adapter for Industrial Workstations Installation Guide

HP 9000 Networking



Manufacturing Part Number: J3420-90001
E0499

U.S.A.

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Safety and Regulatory Information

Safety Information

All inputs/outputs of the J3420B HP-HSC ATM/155 adapter are Safety Extra Low Voltage (SELV) circuits.

CAUTION

The hardware contains electronic components that can be damaged by static electricity. To avoid damage, follow these guidelines:

- Store the hardware in its conductive plastic bag.
- If possible, work in a static-free area.
- Handle circuit boards by the edges only.

Do not touch electronic components or electrical traces. We strongly **recommend** that you use a grounding wrist strap that is connected to the metallic chassis of the host computer. If you do not have a wrist strap, touch the chassis before handling adapters and frequently thereafter to equalize any static charge.

Laser Information

Class 1 Laser product. Hazardous radiation inside the fiber optic module. Do not open. Refer to qualified personnel only.

Wavelength: 1330 nm.

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Power Consumption

The J3420B adapter is powered from the HP-HSC connector and has the following maximum power consumption requirements:

J3420B	
Voltage	**Wattage**
+5 V	15 W
+12 V	0 W
-12 V	0W

Regulatory Information

For the United States

Federal Communications Commission (FCC) Radio Frequency Interference Statement.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that might cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Hewlett-Packard's system verification tests were conducted with HP-supported peripheral devices and cables. Use of this adapter in non-HP systems may void the user's authority to operate the equipment.

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For Canada

Canadian regulations ICES-003

Warning: Complies with Canadian Electromagnetic compatibility (EMC) Class A requirements.

Pour le Canada

Comforme à la class A des normes Canadiennes de compatibilité électromagnetique (CEM).

Pour la France

Déclarations d'installation et de mise en exploitation d'un matériel de traitement de l'information (ATI), classe A

En fonction des niveaux de perturbations radioélectriques émis, définis dans la norme européenne EN 55022 concernant la Compatibilité électromagnétique.

Cher client, Conformément à la Réglementation Française en vigueur, l'installation, ou le transfert d'installation, et l'exploitation de cet appareil de classe A, doivent faire l'objet d'une déclaration (en deux exemplaires) simultanément auprès des services suivants:

- Comité de Coordination des Télécommunications 20 Avenue de Ségur - 75700 PARIS
- La Préfecture du département du lieu d'exploitation

Le formulaire à utiliser est disponible auprès des Préfectures. La déclaration doit être faite dans les 30 jours suivant la mise en exploitation. Le non-respect de cette obligation peut être sanctionné par les peines prévues au code des Postes et Télécommunications et celles indiquées dans la loi du 31 mai 1993.

Arrêté du 27 Mars 1993, publié au J.O du 28 Mars - ATI.

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1 Before Installing the HP-HSC ATM/155 Adapter

This chapter contains the following sections that discuss what you must do before you install the J3420B HP-HSC ATM/155 adapter in the Model

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74x Single Board Computer:

- “Computer Requirements” on page 13.
- “Package Contents” on page 14.
- “Tools and Accessories” on page 15.
- “Switch Specifications” on page 16.
- “Cables” on page 17.

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Computer Requirements

Ensure that the following computer requirements are met:

- You must fit a 2-slot expansion plate to the Model 74x Single Board Computer before installing the HP-HSC ATM/155 adapter. This is because the Model 74x requires three adjacent slots in the System Enclosure when the ATM adapter is installed. Chapter 2 , “Installing the HP-HSC ATM/155 Adapter,” on page 19 includes the steps for fitting the plate.
- Up to two HP-HSC ATM/155 adapters can be installed in the 74x Single Board Computer.
- The operating system must be HP-UX 10.20 or 11.0.
- Approximately 2.5 Mbytes of free space are required in the / (root) file system.

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Package Contents

CAUTION Keep the HP-HSC ATM/155 adapter in its protective antistatic bag until installation. Electronic components can be damaged by even small amounts of static discharge. So, we strongly **recommend** that you use antistatic procedures when handling this or any other computer component. Handle the adapter by the edges and avoid touching all components and metal parts.

When you unpack the adapter hardware and software, keep all original packing materials for storing, transporting, or returning the product if necessary.

Ensure that the HP-HSC ATM/155 adapter hardware package contains the following items:

- One HP-HSC ATM/155 adapter (J3420B).
- Two plastic screws and washers.
- One Model 743*i* boot ROM (revision K or later).
- One IC removal tool.
- One grounding wrist strap.
- One 2-slot expansion plate.

Ensure that the ATM software package contains the following items:

- One CD-ROM containing the ATM link software product (J2806CA).

  Note that the J2806CA ATM software is *not* locked. So, you do not need a codeword to unlock and install the software.
- The *HP ATM Release Note* you received with the software.
- One *ATM Configuration and Troubleshooting Guide* (hardcopy or on the Instant Information CD).

If any of the items are missing or damaged, contact your HP representative.

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Tools and Accessories

You need the following tools to install the HP-HSC ATM/155 adapter:

- The IC removal tool supplied with the product (Model 743*i* only).
- The grounding wrist strap supplied with the product.
- A flat-bladed screwdriver.
- A No. 1 Pozidriv screwdriver.
- A Phillips head screwdriver.
- Your 74x *Owner's Guide*.

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Switch Specifications

Check the following on the ATM switch:

- The switch has SC or ST connectors for use with Multi-Mode Fiber (MMF) connections.
- The switch must be UNI 3.0, 3.1, or 4.0 compliant.

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Cables

The HP-HSC ATM/155 adapter uses MMF connections with SC connectors. For connecting to switches with ST connectors, SC-to-ST duplex adapters are necessary. Ensure that you have the following cables:

- SC-to-SC cable.
- SC-to-ST cable (duplex adapter).
- SC loopback connector (for troubleshooting).

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2 Installing the HP-HSC ATM/155 Adapter

This chapter describes the steps you must follow to install the J3420B HP-HSC ATM/155 adapter in the Model 74x Single Board Computer

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system.

WARNING **Electric shock hazard. Shut down and turn off the system, and disconnect the power cable and all telecommunications network cables before opening the system or accessing the slots.**

CAUTION You must turn off the power to the system before you install the adapter. Otherwise, the equipment—the system and/or the adapter—might be damaged.

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Installation Steps

CAUTION The HP-HSC ATM/155 adapter and Model 74x Single Board Computer are vulnerable to electrostatic shock. Always wear the grounding wrist strap provided when handling the HP-HSC ATM/155 adapter and Model 74x Single Board Computer. Observe all normal antistatic precautions and always handle printed circuit boards carefully.

To install the HP-HSC ATM/155 adapter in your 74x Single Board Computer, follow these steps:

Step 1. Login as `root`.

Step 2. Shut down and power off your system as described in your 74x *Owner's Guide*.

WARNING **Failure to properly shut down and power off the system might create a personal hazard, or might result in hardware damage or data corruption.**

Step 3. Unplug the system unit power cable and the power cables of any peripheral devices from the wall outlets.

Step 4. Unplug the system unit power cable from the input power connector at the back of the system unit.

Step 5. Disconnect all telecommunications network cables.

Step 6. Remove the 74x Single Board Computer from the System Enclosure (see your 74x *Owner's Guide* for the correct steps).

Step 7. If your 74x Single Board Computer does not have option boards installed, go to step 8.

If your 74x Single Board Computer does have option boards installed, see your 74x *Owner's Guide* for the steps for removing the option boards. Then, go to step 8.

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Step 8. If you are not installing the HP-HSC ATM/155 adapter in a Model 743*i* Single Board Computer, go to step 9.

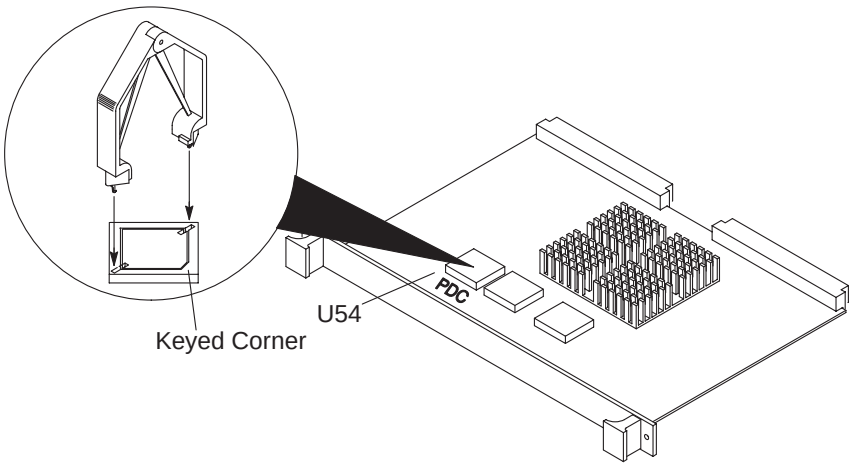
If you are installing the HP-HSC ATM/155 adapter in a Model 743*i* sytem, upgrade (if necessary) the boot ROM on the 743*i*'s CPU board.

NOTE Upgrade the boot ROM in your 743*i* Single Board Computer *only* if the revision number of the existing boot ROM is *lower* than the revision number of the boot ROM supplied with the ATM adapter. The revision number is clearly marked on the boot ROM.

To replace the boot ROM in a Model 743*i* system, follow these steps:

a. Remove the boot ROM from its socket on the 743*i* system by using the IC removal tool, as shown in Figure 2-1 below. Note that the boot ROM is located at location U54 (shown on the board).

Figure 2-1 Removing the 743*i* Boot ROM from Socket



b. Align the new boot ROM in its socket at location U54, with the keyed corner matching the socket's keyed corner.

c. Carefully press the new boot ROM into its socket.

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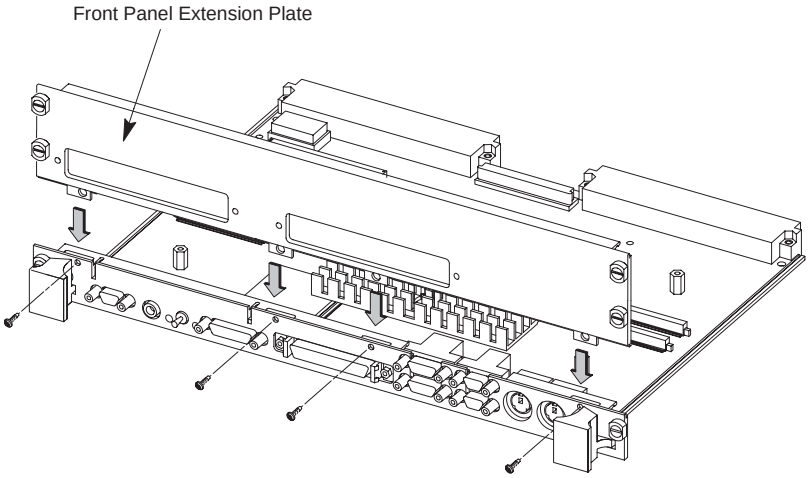
Step 9. Fit the 2-slot Expansion Plate to the 74x Single Board Computer, to enable it to house the HP-HSC ATM/155 adapter. This means that when an HP-HSC ATM/155 adapter is installed in the 74x Single Board Computer, the 74x occupies 3 VME slots in the System Enclosure.

To fit the 2-slot expansion plate to your 74x Single Board Computer, follow these steps (note that you need a No. 1 Pozidriv screwdriver):

a. Remove the expansion plate already fitted to the 74x Single Board Computer (keep the four screws).

b. Fit the 2-slot face plate on the 74x Single Board Computer's front panel so that its tabs are behind the 74x front panel, as shown in Figure 2-2 below.

Figure 2-2 Fitting the 2-Slot Face Plate



c. Fix the 2-slot face plate to the 74x front panel, by using the four screws you removed in substep a.

Step 10. Install the HP-HSC ATM/155 adapter in the 74x Single Board Computer.

Working from the rear of your 74x Single Board Computer, you can install the ATM adapter into the right-hand or center position, by following these steps:

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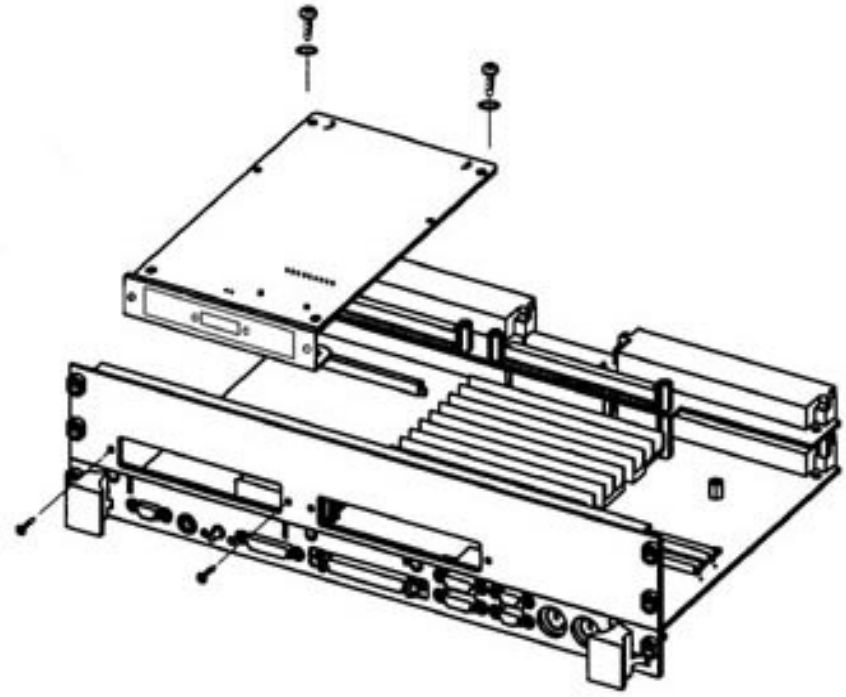
a. Position the ATM adapter in the right-hand or center slot, and line up its connector over the connector on the 74x Single Board Computer.

b. Press the adapter firmly down to fully engage the connectors.

c. Secure the ATM adapter to the adapter fixture on the 74x by using the two plastic screws and washers supplied with the adapter.

d. Secure the adapter to the 74x's front panel expansion plate by using the two screws that were used with the blank panel. Figure 2-3 below shows the two locations where you need to secure the adapter.

Figure 2-3 Securing the ATM Adapter



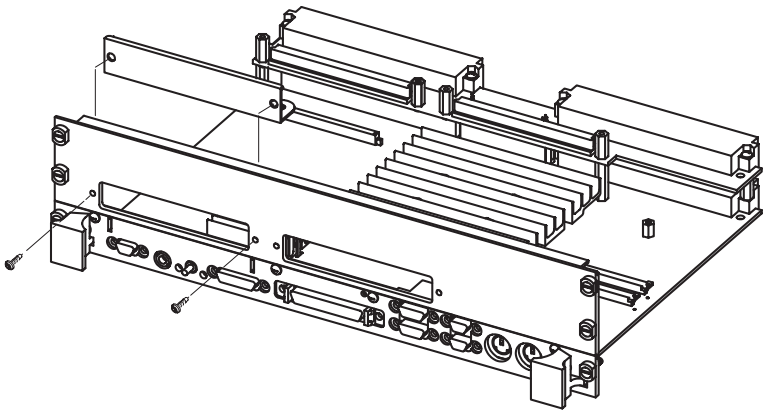
e. If you are installing a second ATM adapter, repeat substeps a through d to install the second adapter in the remaining open slot.

If you are not installing a second adapter, go to step 11.

Step 11. Install a blank cover on any open slots, by using a No. 1 Pozidriv screwdriver to tighten the screws. Figure 2-4 below shows where the screws are located.

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Figure 2-4 Installing a Blank Cover



Step 12. See your 74x *Owner's Guide* for the steps to reinstall the 74x Single Board Computer in the System Enclosure. Then, go to step 13.

Step 13. Reconnect the cables and/or terminators.

Step 14. Power up your Model 74x Single Board Computer.

Step 15. Go to "Verifying Hardware Installation" on page 26 (below).

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Verifying Hardware Installation

To verify that you have correctly installed the HP-HSC ATM/155 adapter, follow these steps:

Step 1. Look at the Carrier LED on the ATM adapter. A green light means that the hardware installation was successful and that the ATM cables are correctly connected.

Step 2. If the LED is not green, do the following things:

a. Ensure that the system and the ATM switch are powered on.

b. Swap (with each other) the transmit and receive cables connected to the ATM adapter.

Step 3. If the LED is still not green, see the *ATM Configuration and Troubleshooting Guide* for troubleshooting information.

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