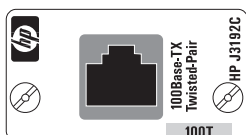


# HP 100Base-T Transceiver Modules Installation Guide

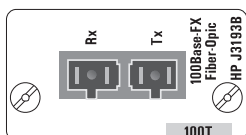
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## Introduction

This document describes how to install, verify, and troubleshoot the following two HP 100Base-T transceiver modules (termed *100Base-T transceivers* in this manual):



HP J3192C AdvanceStack 100Base-TX Twisted-Pair Transceiver Module



HP J3193B AdvanceStack 100Base-FX Fiber-Optic Transceiver Module

These HP 100Base-T transceivers provide network connections for the:

- HP J3191A AdvanceStack Switch 2000 100Base-T Module
- HP AdvanceStack Switch 208T (HP J3175A)
- HP AdvanceStack Switch 224T (HP J3177A)
- HP AdvanceStack Switch 800T (HP J3245A)
- Other HP networking devices that may be designed to accept these transceivers.

The transceivers are designed to be installed in the 100Base-T transceiver slot of the HP networking device or device module.

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## Important Notes

**Disks:** Included with your transceiver are Software (OS) *Update Disks* for the HP switches designed to accept the transceiver. These disks provide the operating system software (OS) needed to support the “B”- and “C”-versions of the HP J3192 twisted-pair transceiver module in your HP switch. To determine whether you need to upgrade the OS in a switch before installing a transceiver, refer to the next section, “Device Compatibility”.

**Coverage:** The illustrations in this document show the transceivers being used with the HP J3191A AdvanceStack Switch 100Base-T Module. The procedures described in this document also pertain to using these units in other 100Base-T HP networking devices that are designed to accept them. To verify which transceiver to use with an HP networking device, refer to the documentation you received with that specific device.

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## Device Compatibility

The “A” version of the 100Base-TX Twisted-Pair Transceiver (J3192A) was superseded by the “B” version (J3192B). The “B” version is now superseded by the “C” version (J3192C).

- Use the “A” version *only* in the Switch 2000A (J3100A) with the J3191A 100Base-T Module.
- Use the “B” and “C” versions in the Switch 2000A, Switch 2000B, Switch 208T, Switch 224T, Switch 800T, and other HP networking devices designed to accept them. (Refer to the manual you received with the specific device.) The following table shows 100Base-T Transceiver Module compatibility with specific Hewlett-Packard networking devices and operating systems (OS) at this printing.

<b>Minimum OS Version Required*</b>			
<b>Transceiver Model</b>	<b>Switch 2000A (HP J3100A)</b>	<b>Switch 2000B (HP J3100B) and Switch 800T</b>	<b>Switch 208T** and Switch 224T**</b>
HP J3192A (UTP)	A.02.50	Not Supported	Not Supported
HP J3192B (UTP)	A.03.01	B.03.01	A.01.01
HP J3192C (UTP)	A.03.20	B.03.20	A.01.20
HP J3193B (Fiber)	A.03.01	B.03.01	A.01.01

**\*To identify the OS version on your switch:** Run the switch console interface, select “Statistics” or “Status and Counters” from the Main menu, and then select “Switch Information” from the Statistics or Status and Counters menu.

**\*\*The Switch 208/224 OS upgrade** requires prior installation of the Switch 208/224 Management Module in the Switch 208T or 224T. If the Management Module is not installed, the transceiver operates in the default 100Mbps, half-duplex mode only.

## Installation Steps

### Transceiver Installation Note

If the software (OS) version currently running in your switch is earlier than the version listed in the above chart for the transceiver you are installing, refer to the appropriate software update instructions *before* you continue in this section.

- To update a Switch 2000A (HP J3100A) or Switch 2000B (HP J3100B), refer to page 9.
- To update a Switch 800T, refer to page 12.
- To update a Switch 208T or 224T (with a Switch 208T/224T Management Module installed), refer to page 14.

## Transceiver Installation Overview

To install the HP 100Base-T Transceivers, follow these steps:

1. Unplug the switch from the AC power supply (or, for the Switch 2000, remove the 100Base-T Module from the switch).

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### Caution

**To avoid possible damage to the transceiver circuitry, turn off power to the device before installing the transceiver into it. (For the Switch 2000, you can leave the power on to the switch, but must remove the switch module before loading a transceiver into it.) Before you install a transceiver into a device, read the transceiver installation information provided with the device.**

**Make sure you install these transceivers only into HP 100Base-T devices designed to accept them.**

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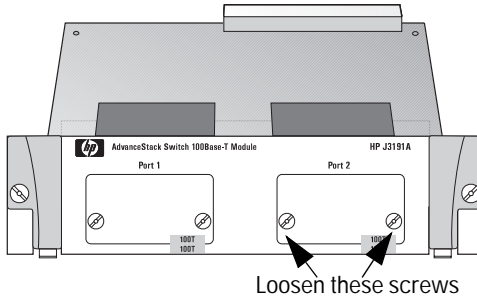
2. Insert the transceiver into an HP networking device's 100Base-T transceiver slot.
3. If the 100Base-T transceiver slot is in a hub or switch module, insert the hub or switch module into the HP networking device.
4. Connect the network cable(s) to the transceiver.
5. Apply power to the HP networking device into which the transceiver is installed, and check the transceiver for correct operation.

Details on these steps are provided in the rest of this document.

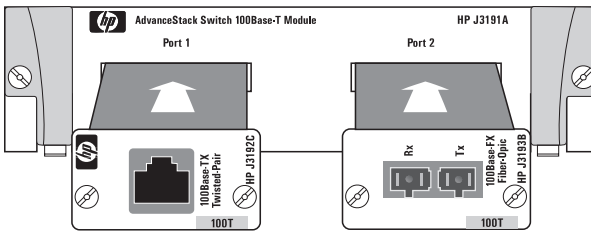
## Insert the Transceiver Into the Slot

The transceivers are installed into an HP networking device, as follows:

1. Unplug the HP networking device from the AC power source. Then, using a flat-bladed or Torx T-10 screwdriver, unscrew the two retaining screws on the existing transceiver or 100Base-T transceiver cover plate, and remove it from the HP networking device or device module.



2. While touching a metal part of the networking device to discharge any static electricity difference between your body and the device, carefully remove the transceiver from its protective anti-static packaging. Hold the transceiver by its edges, taking care not to touch any of its metal connectors.
3. Slide the transceiver firmly into the 100Base-T transceiver slot as far as it will go. The transceiver's faceplate should touch the face of the device. The following illustration shows twisted-pair and fiber-optic transceivers sliding into an HP J3191A AdvanceStack Switch 100Base-T Module.



4. Using the flat-bladed or Torx T-10 screwdriver, tighten the retaining screws on the transceiver until they are snug. *Be careful that you do not overtighten the screws.* Then, insert the hub or switch module into the networking device.

## Connect Network Cables to the Transceiver or Port.

### Cabling for an HP 100Base-TX Twisted-Pair Transceiver

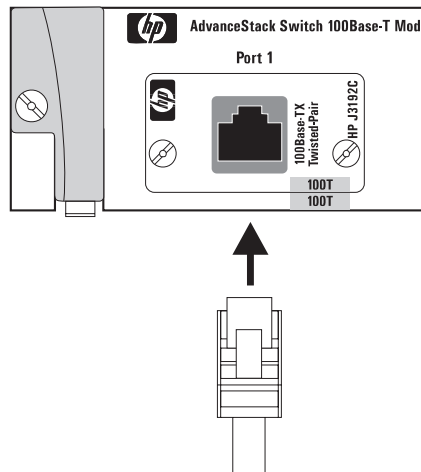
The HP 100Base-TX Twisted-Pair Transceiver connects an HP networking device to an unshielded twisted-pair (UTP) network using Category 5 cable or better. This transceiver is compatible with IEEE 802.3 and IEEE 802.3u standards.

**MDI/MDI-X Connections.** The HP 100Base-TX Twisted-Pair Transceiver is designed for MDI-X operation, allowing you to use a “straight-through” twisted-pair cable to connect the transceiver to an end node or other device having an MDI port. For connecting to an MDI-X port on another switch or on a hub, use a crossover cable.

**Speed.** The transceiver can operate at two speeds: 10 Mbit/s or 100 Mbit/s. The default is 100 Mbit/s. The selection of the speed can be chosen or you specify automatic sensing in software. (Some devices may have autosensing as the default speed setting. Refer to the documentation you received for the specific device.) The current speed of the transceiver is shown in the software for the product in which it is installed, for example, in the switch console. On some products, the speed is also shown by an LED.

**Connecting the Twisted-Pair Cable.** The 100Base-TX standard requires category 5, two-pair, 100 ohm UTP (unshielded twisted-pair) cables.

Push the cable’s 8-pin RJ-45 plug into the transceiver’s jack until it clicks into place.



Cable length up to 100 meters.

For a connection to an end node or other device having an MDI port, use a straight-through cable. For a connection to an MDI-X port on another device, such as a switch or some hubs, use a crossover cable.

When power has been supplied to the HP networking device or device module into which the transceiver is installed, check the port LED that pertains to the transceiver on the device. If the transceiver is receiving a signal properly, the port LED should be ON. If the port LED is OFF, see “Troubleshooting” on page 18.

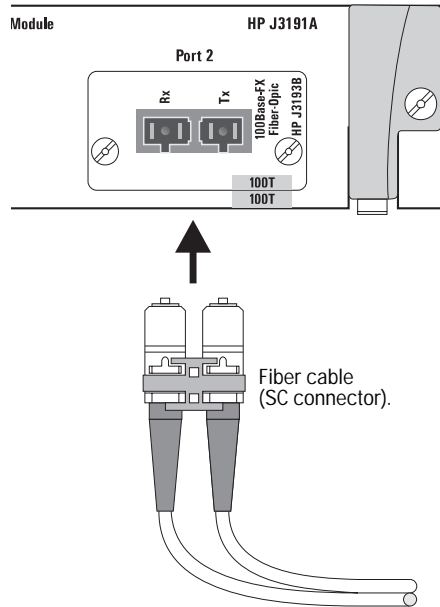
## Cabling for an HP 100Base-FX Fiber-Optic Transceiver

The HP 100Base-FX Fiber-Optic Transceiver connects an HP networking device to a fiber-optic network using SC connectors. This transceiver is compatible with the IEEE 802.3u protocol and its wavelength is 1300nm. Optical fibers used with this transceiver should be multimode, graded-index optical fiber with nominal 62.5/125  $\mu\text{m}$  or 50/125  $\mu\text{m}$  core/cladding diameter complying with the ITU-T G.651 standard and A1b or A1a fiber respectively of the IEC 793-2 standard.

### Connecting the Fiber-Optic Cable . To connect a fiber-optic cable to a transceiver:

1. Remove the plastic dust covers from the cable connectors. Then use your fingers to pull the cover off of the transceiver.
2. Match the tabs on the bottom of the connectors to the slots in the transceiver's jack. See the illustration.
3. Press the connector into the jack so that the tabs on the connector slide into the slots in the jack and the connector snaps securely into place.

4. If you are using cable with SC duplex connectors, as shown in the illustration, both cables are connected simultaneously. When power is applied to this transceiver in its module or networking device, the port LED should be ON. If the LED is off, see Troubleshooting on page 18. To determine distances between devices, use the following chart.



<b>Connection Type</b>	<b>Maximum Distance</b>
Switch to switch, full duplex	2 km
Switch to switch, half duplex	412 meters
Switch to end node, full duplex	2 km
Switch to end node, half duplex	412 meters
Switch to Class I hub with 100 meters between the hub and end node	160 meters
Switch to Class II hub with 100 meters between the hub and end node	208 meters

# Software (OS) Update for the Switch 2000.

The Software (OS) *Update Disks* shipped with your transceiver include operating system (OS) updates for the “A” and “B” versions of the Switch 2000—HP J3100A and HP J3100B—plus an Update utility and other information.

## Do You Need To Update the Switch 2000 OS?

If you are installing a 100Base-T transceiver in the Switch 2000, do the following to determine which OS version the switch is using:

1. In the Switch 2000 console, use the `Version` command to determine which version of the switch’s operating system (OS) software is in use.

- a. At the Main Menu, select `Command Prompt`—or `Advanced Commands`—then type `version` and press `[Enter]`.

The resulting display will include the OS version in use, and will appear similar to the following:

B.04.24

- b. Use the `exit` command to return to the Main Menu.
2. Determine whether to update the switch’s operating system (OS) software to the OS version on the 3-1/2 inch *Update Disk* included with the transceiver:

Minimum OS Version Required*		
Transceiver Model	Switch 2000A	Switch 2000B
HP J3192A (UTP) Transceiver	A.02.50	Not Supported
HP J3192B (UTP) Transceiver	A.03.01	B.03.01
HP J3192C (UTP) Transceiver	A.03.20	B.03.20
HP J3193B (Fiber) Transceiver	A.03.01	B.03.01

\*To identify the OS version on your switch: Run the switch console interface, select “Statistics” or “Status and Counters” from the Main menu, and then select “Switch Information” from the Statistics or Status and Counters menu.

## To Update the Switch 2000 OS:

Use the software that is provided on the disk shipped with your HP J3192C or HP J3193B transceiver.

The disk contains one or more of the following files:

- The switch update utility, named `update.exe`, and an `update.txt` file containing instructions on how to use the update utility, plus other information. (This is a PC-based utility that you can run from DOS or from a DOS window to download the new switch software from a PC directory. This utility requires an RS-232 serial connection to the Switch 2000.)
- Two OS files:
  - `filename.swi`
  - `filename.fdd`

where *filename* will be the same for both files; for example:

<code>B_04_24.swi</code>	OS for the “B” version of the Switch 2000 chassis (HP J3100B) and all Switch 2000 modules (such as the HP J3191A 100Base-T Module) that operate with version B.04.24 or earlier software.
<code>B_04_24.fdd</code>	OS for the FDDI Module. ( <i>Necessary if an FDDI Module is installed in the Switch 2000.</i> )

Observe the following when downloading the OS software to the Switch 2000:

- `filename.swi` and `filename.fdd` must be in the same directory.
- *filename* must be the same for both files. (That is, the files must be the `.swi` and `.fdd` file pair from the disk.)

For the above reasons, do not place the `filename.swi` and `filename.fdd` in separate directories, and do not rename them.

## Note

For the “B”-version of the Switch 2000 (HP J3100B) use only an OS version file beginning with “B” (such as `B_04_24.swi`). For the “A”-version of the Switch 2000 (HP J3100A) use only an OS version file beginning with “A” (such as `A_03_24.swi`).

Version 03.20 (“A” or “B”) or later of the OS for the Switch 2000 supports all Switch 2000 modules and compatible transceivers available as of January 1, 1998. If you are installing more than one type of Switch 2000 module and/or if you need to download a new version of the Switch 2000 OS, use the latest version. The latest version is available electronically from Hewlett-Packard. Refer to “Support is as close as the World Wide Web!” on page 20. For more on software compatibility, see the `relnotes.txt` file included on the disk shipped with your HP J3192C or HP J3193B transceiver.

**OS Download Steps.** Use this procedure if you need to download a new OS version to your Switch 2000. The procedure describes how to use a personal computer (PC) to download the OS. (If you are using a UNIX workstation, refer to the Note below.)

1. Copy the files from the disk into the DOS directory you will use for downloading to the switch. (You can also download directly from the disk.)
2. Download the software upgrade by using one of the following methods:
  - **TFTP download using a TFTP server and the Download OS option in the Switch 2000 console interface:** This is the recommended download method if you have TFTP server access to the Switch 2000. Refer to the documentation you received with your Switch 2000. For this option, use the form  
*filename.swi*  
  
for the Remote File Name parameter. (The *filename.fdd* file will automatically be used if an FDDI Module is already installed in the Switch 2000.)
  - **Switch update utility:** Refer to the instructions in the *update.txt* file provided on the disk with the update utility.
3. If you are performing a first-time installation of an HP J3192C or HP J3193B transceiver, go to the “Transceiver Installation Overview” on page 4.

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## Note

To perform a TFTP download from a UNIX system, store the uncompressed *filename.swi* (and *filename.fdd* if an FDDI Module is installed in the Switch 2000) in the UNIX TFTP directory, then perform the TFTP download as described in Step 2, above. If your TFTP server is a UNIX system, ensure that the case (upper or lower) that you specify for the filename in the Switch 2000 Download OS screen is the same case as the OS filenames in the TFTP server.

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# Software (OS) Update for the Switch 800T

The Software (OS) *Update Disks* shipped with your transceiver include operating system (OS) updates for the Switch 800T, plus an Update utility and other information.

## Do You Need To Update the Switch 800T OS?

If you are installing a 100Base-T transceiver in the Switch 800T, do the following to determine which OS version the switch is using:

1. In the Switch 800T console, use the `Version` command to determine which version of the switch's operating system (OS) software is in use. (At the Main Menu, select `Advanced Commands`, then type `version` and press `[Enter]`.) (Use the `exit` command to return to the Main Menu.)
2. Determine whether to update the switch's operating system (OS) software to the OS version on the 3-1/2 inch *Update Disk* included with the transceiver:

Minimum OS Version Required*	
Transceiver Model	Switch 800T
HP J3192A (UTP) Transceiver	<i>Not Supported</i>
HP J3192B (UTP) Transceiver	B.03.01
HP J3192C (UTP) Transceiver	B.03.20
HP J3193B (Fiber) Transceiver	B.03.01

\*To identify the OS version on your switch: Run the switch console interface, select "Status and Counters" from the Main menu, and then select "Switch Information" from the Status and Counters menu.

## To Update the Switch 800T OS:

Use the software that is provided on the disk shipped with your HP J3192C or HP J3193B transceiver.

The disk contains several files, including the following:

- The switch update utility, named `update.exe`.
- An `update.txt` file containing instructions on how to use the update utility. (This is a PC-based utility that you can run from DOS or from a DOS window to download the new switch software from a PC directory. This utility requires an RS-232 serial connection to the Switch 800T.)

- The following OS file:

*filename.swi*

where *filename* indicates the OS version number; for example:

B\_04\_24.swi      OS for the Switch 800T

- Other files not used by the Switch 800T.

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## Note

For the Switch 800T use only an OS version file beginning with “B” (such as B\_04\_24.swi ).

Version B.03.20 of the OS for the Switch 800T supports the HP J3192B and HP J3192C 100Base-TX Twisted-Pair Transceiver Modules and the HP J3193B 100Base-FX Fiber-Optic Transceiver Module. If it is necessary to download a new version of the Switch 800T OS, use the latest version available. The latest version is available electronically from Hewlett-Packard. Refer to “Support is as close as the World Wide Web!” on page 20. For more on software compatibility, see the `relnotes.txt` file included on the disk(s) shipped with your HP J3192C or HP J3193B transceiver.

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**OS Download Steps.** Use this procedure if you need to download a new OS version to your Switch 800T. The procedure describes how to use a personal computer (PC) to download the OS. (If you are using a UNIX workstation, refer to the Note on page 14.)

1. Copy the files from the disk into the DOS directory you will use for downloading to the switch. (You can also download directly from the disk.)
2. Download the software upgrade by using one of the following methods:
  - **TFTP download using a TFTP server and the Download OS option in the Switch 800T console interface:** This is the recommended download method if you have TFTP server access to the Switch 800T. Refer to the instructions in chapter 8, “File Transfers”, in the *Installation and Configuration Guide* you received with your Switch 800T. For this option, use the form

*filename.swi*

for the Remote File Name parameter.

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- **Switch update utility:** Refer to the instructions in the `update.txt` file provided on the disk with the update utility.
3. If you are performing a first-time installation of an HP J3192C or HP J3193B transceiver, go to the “Transceiver Installation Overview” on page 4.

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## Note

To perform a TFTP download from a UNIX system, store the uncompressed `filename.swi` in the UNIX TFTP directory, then perform the TFTP download as described in Step 2, above. If your TFTP server is a UNIX system, ensure that the case (upper or lower) that you specify for the filename in the Switch 800T Download OS screen is the same case as the OS filename in the TFTP server.

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## Software (OS) Update for the Switch 208T/224T

The Software (OS) *Update Disks* shipped with your transceiver include an operating system (OS) update for the Switch 208T and Switch 224T when an HP J3178A AdvanceStack Switch 208/224 Management Module is installed.

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## Note

An OS update does *not* apply to a Switch 208T or Switch 224T if an optional HP J3178A AdvanceStack Switch 208/224 Management Module is not already installed in the switch.

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## Do You Need To Update a Switch 208T or Switch 224T OS?

If you are installing a 100Base-T transceiver in the Switch 208T or 224T (where a management module is already installed in the switch), do the following to determine which OS version the switch is using:

1. In the switch console, use the `Version` command to determine which version of the switch's operating system (OS) software is in use. (At the Main Menu, select `Advanced Commands`, then type `version` and press `[Enter]`.) (Use the `exit` command to return to the Main Menu.)
2. Determine whether to update the switch's operating system (OS) software to the OS version on the 3-1/2 inch *Update Disk* included with the transceiver:

Minimum OS Version Required*	
Transceiver Model	Switch 208T** Switch 224T**
HP J3192A (UTP) Transceiver	<i>Not Supported</i>
HP J3192B (UTP) Transceiver	A.01.01
HP J3192C (UTP) Transceiver	A.01.20
HP J3193B (Fiber) Transceiver	A.01.01

\***To identify the OS version on your switch:** Run the switch console interface, select "Status and Counters" from the Main menu, and then select "Switch Information" from the Status and Counters menu.

\*\***The Switch 208/224 OS upgrade** requires prior installation of the optional Switch 208/224 Management Module in the Switch 208T or 224T. If Management Module is not installed, the transceiver operates in the default 100Mbps, half-duplex mode only.

### To Update the Switch 208/224 OS:

Use the software that is provided on the disk shipped with your HP J3192C or HP J3193B transceiver.

The disk contains several files, including the following:

- The following OS file:

*filename.swi*

where *filename* indicates the OS version number; for example:

A\_01\_24.swi      OS for the Switch 208T and the Switch 224T  
(with the J3178A management module installed).

- Other files not needed for the Switch 208T or Switch 224T.

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## Note

Version A.01.20 of the OS for the Switch 208T and Switch 224T supports the HP J3192B and HP J3192C AdvanceStack 100Base-TX Twisted-Pair Transceiver Modules and the HP J3193B AdvanceStack 100Base-FX Fiber-Optic Transceiver Module. If it is necessary to download a new version of the Switch 208/224 OS, use the latest version available. The latest version is available electronically from Hewlett-Packard. Refer to “Support is as close as the World Wide Web!” on page 20.

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**OS Download Steps.** Use this procedure if you need to download a new OS version to your Switch 208T or 224T. The procedure describes how to use a personal computer (PC) to download the OS. (If you are using a UNIX workstation, refer to the Note below.)

1. Copy the files from the disk into the DOS directory you will use for downloading to the switch. (You can also download directly from the disk.)
2. Download the software upgrade by using one of the following methods:

- **TFTP download using a TFTP server and the Download OS option in the Switch 208/224 console interface:** This is the recommended download method if you have TFTP server access to the Switch 208T or 224T. Refer to the instructions in appendix C, “File Transfers”, in the *Installation and Reference Guide* you received with your Switch 208/224 Management Module. For this option, use the form

`filename.swi`

for the Remote File Name parameter.

- **Other download methods:** These include:
  - Switch-to-Switch download
  - Zmodem download

Refer to the instructions in appendix C, “File Transfers”, in the *Installation and Reference Guide* you received with your Switch 208/224 Management Module.

3. If you are performing a first-time installation of an HP J3192C or HP J3193B transceiver, go to the “Transceiver Installation Overview” on page 4.

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## Note

To perform a TFTP download from a UNIX system, store the uncompressed *filename.swi* in the UNIX TFTP directory, then perform the TFTP download as described in Step 2, above. If your TFTP server is a UNIX system, ensure that the case (upper or lower) that you specify for the filename in the Switch 800T Download OS screen is the same case as the OS filename in the TFTP server.

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# Troubleshooting

**The fiber-optic cable connector doesn't fit in the 100Base-FX transceiver.** The fiber-optic transceiver has SC connectors. You may be trying to connect a cable with ST connectors. SC-to-ST adapters are available. Contact your HP-authorized LAN dealer.

**The port LED for the 100Base-T transceiver is not on.** The connected module or device must be a 100Base-T device that is powered on.

**A connected device is not transmitting the signal.** Verify that the cable length does not exceed 100 meters for a twisted-pair connection or the distances listed above for a fiber-optic connection. Verify that the connected device is on and check all cabling and connections (including patch panels). If the port for the transceiver can be configured to either 10 Mbit/s or 100 Mbit/s and/or full- or half-duplex, ensure that the ports at both ends of the connection are configured alike. Try a different cable.

**The Fault LED is flashing.** Verify that you have a 100Base-TX or FX transceiver in a 100Base-T transceiver slot. Placing a 100Base-TX or FX transceiver into a 100VG slot may cause the Fault LED to flash. Refer to the documentation you received with the networking device for information on transceiver installation. Turn off the power and reinsert the transceiver into the module and verify the screws are tightened.

**Link from a J3192A 100Base-TX transceiver to another device not recognized or failing.** The J3192A version of the transceiver should be installed only in the "A" version of a Switch 2000 (HP J3100A). For other HP devices (such as the Switch 2000B, Switch 208T, Switch 224T, and the Switch 800T) using J3192 series 100Base-TX transceivers, install the "B" or "C" version of the transceiver (J3192B or J3192C).

For most of these problems, you can also use the device's console interface (for example with a VT-100 console device), or HP AdvanceStack Assistant to troubleshoot and configure the 100Base-T transceiver port. See the HP networking device's manual (such as the HP AdvanceStack Switch 2000 manual) for more information.

If a J3192 twisted-pair transceiver link is failing, ensure that the correct cable type is in use: straight-through for an MDI-X to MDI link, or crossover for an MDI-X to MDI-X link.

If you are still having trouble, see "Support is as close as the World Wide Web!" on page 20.

## Specifications for All 100Base-T Transceivers

### Physical

Dimensions	
Width	4.14 cm (1.63 in)
Depth	9.22 cm (3.63 in)
Height	2.36 cm (0.93 in)
Weight	50 grams (1.75 oz.)

### Environmental

Operating temperature:	0°C to 55°C (32°F to 131°F)
Nonoperating temperature:	-40°C to 70°C (-40°F to 158°F)
Relative humidity:	15% to 95% at 40°C (104°F) non-condensing
Maximum altitude:	4.6 km (15,000 feet)

### Electromagnetic

#### Emissions

FCC part 15 Class A  
EN55022 / CISPR-22 Class A  
VCCI Level 1

Complies with Canadian EMC Class A requirements.



### Immunity

This product is designed for operation with the HP J3100A and J3100B versions of the HP AdvanceStack Switch 2000 (equipped with the HP J3191A AdvanceStack Switch 100Base-T module), the J3245A HP AdvanceStack Switch 800T, the J3175A HP AdvanceStack Switch 208T, the J3177A HP AdvanceStack Switch 224T, or other products and is listed in the Declaration of Conformity available from your HP-authorized dealer or reseller.

### Standards

The fiber transceiver complies with the IEEE 802.3u standard. The twisted-pair transceiver complies with the IEEE 802.3 and IEEE 802.3u standards.

# Support is as close as the World Wide Web!

[http://www.hp.com/go/network\\_city](http://www.hp.com/go/network_city)

Follow the links that lead you to Support, Drivers, and Technology. Our Web site has everything you need in one place, around the clock, seven days a week:

- Software, agent firmware, and drivers (see “When Downloading Files”, below)
- Troubleshooting information
- Product information
- Support contacts

## Your HP Reseller can help, too!

Be sure to talk to your reseller about the support services they offer for your HP networking products.

## Other HP Electronic Support Services

If you don't have World Wide Web access, these sources provide firmware, drivers, and technical information.

### CD-ROM

Every network-manageable hub and switch comes with a CD-ROM that includes management software, MIBs, documentation, and other useful technical information.

### HP FTP Library Service

```
ftp ftp.hp.com
Name: anonymous
Password: john@mycompany.com
ftp> bin
ftp> cd /pub/networking/software
ftp> get filename
ftp> quit
```

Use your FTP software to ftp to HP's site.  
Log in as “anonymous”  
Enter your email address as your password.  
Enter bin as the file transfer type  
Go to the directory that has the files  
Transfer the file you want to your computer  
Quit the connection.

### HP Bulletin Board Service (BBS)

With your communication/terminal emulation software:

- In the U.S., dial 208-344-1691

■ In other countries, contact your reseller or local HP Customer Care Center (see chart below) for the BBS telephone number for your country. Follow the menu system to find and download the latest software, agent firmware, or drivers for your HP networking product.

**When Downloading Files**

Files are typically named to correspond to the HP product number of the product they're intended for. If the file you download has a file extension of ".exe", it is a compressed file. For example, the product HP J3178A may have a file **j3178xx.exe** that is extracted by typing **j3178xx** .

**HP FIRST Fax Retrieval Service**

HP FIRST is an automated fax retrieval service that is available 24 hours a day, seven days a week. HP FIRST provides a variety of product and technical information. To access HP FIRST, dial one of the following telephone numbers:

- In the U.S. and Canada, dial 800-333-1917 from your fax machine or touch-tone phone.
- In other countries, contact your reseller or local HP Customer Care Center (see chart below) for the HP FIRST telephone number for your country.
- To access the U.S./Canada HP FIRST system from another country, dial +1 208 344 4809 from your fax machine.

Enter the ID number of the document you want to receive. If you're not sure what the ID number is, you can request an index by following the prompts. The information will be sent to you by return fax.

**Additional HP Support Services**

Limited free telephone support is offered through the HP Customer Care Center (CCC) in your country:

North America			Asia Pacific		
United States	970-635-1000	Hungary	36 (1) 252 4505	Australia	61 3 9272 8000
Canada (English)	970-635-1000	Ireland	01 662 5525	China	8610 6505 3888
Canada (French)	800-387-3867	Italy	02 26410350	Hong Kong	800 96 7729
Europe, Middle East, and Africa		Middle East	+41 22/780 71 11	India	91 11 682 6035
Africa	+41 22/780 71 11	Netherlands	020 606 8751	Indonesia	6221 350 3408
Austria	0660 6386	Norway	22 11 6299	Japan	81 3 3335 8333
Belgium (Dutch)	02 626 8806	Poland	48 22 37 50 65	Korea	82 2 3270 0803
Belgium (French)	02 626 8807	Portugal	01 441 7199	Malaysia	03 295 2566
Czech Republic	42 (2) 471 7321	Russia	7095 923 50 01	New Zealand	09 356 6640
Denmark	3929 4099	Spain	902 321 123	Philippines	63 2 867 3551
English (non-UK)	+44 171 512 52 02	Sweden	08 619 2170	Singapore	65 272 5300
Finland	0203 47 288	Switzerland	0848 80 11 11	Taiwan	886 2 717 0055
France	01 43 62 34 34	Turkey	90 1 224 59 25	Thailand	661 4011
Germany	0180 52 58 143	United Kingdom	0171 512 52 02		

Each CCC takes calls during the normal HP business hours for its location. This service is for basic questions only, relating to installation, general configuration,

troubleshooting, and usage. Advanced topics including network design, consultation, performance tuning, and configuration recommendations are not available through this service.

HP has other telephone and onsite services available that provide you with expert HP technical assistance. HP SupportPacks, purchased from your local reseller, provide a variety of services, including advanced technical support and around-the-clock availability. Other services offer network design, consulting, or remote telephone support. Contact your reseller or local HP Sales and Support Office for more information.

## **Less Work, More Network**





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© 1998 Hewlett-Packard Company  
HP Part Number: 5967-2162  
July 1998  
Printed in Singapore

