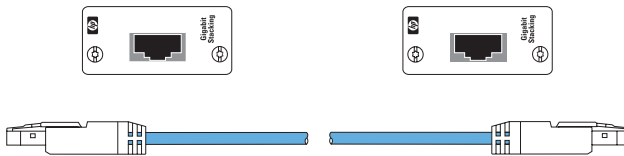


HP ProCurve Switch Gigabit Stacking Kit Installation Guide

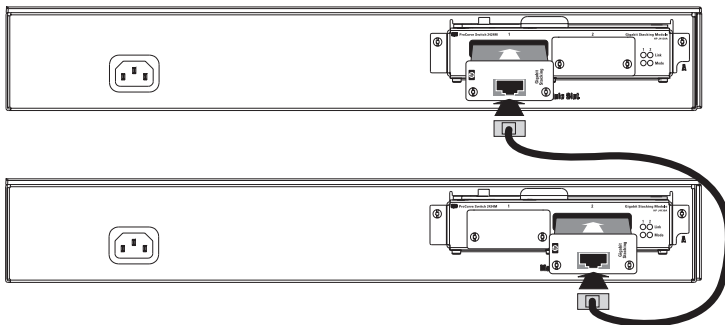
Introduction

The HP ProCurve Switch Gigabit Stacking Kit (HP J4116A) is used to provide a 1000 Mbps stacking connection between any two HP ProCurve switches that support the kit. The kit consists of two HP ProCurve Gigabit Stacking Transceivers and a 0.5-meter shielded twisted-pair Stacking Cable.



HP ProCurve Switch Gigabit Stacking Kit

Install each of the transceivers in the kit into either one of the transceiver slots of two HP ProCurve Switch 2424M Gigabit Stacking Modules (HP J4130A) or a transceiver slot in any other HP ProCurve switch that supports these transceivers. If you are using the Gigabit Stacking Module, the module is then installed into the module slot of an HP ProCurve Switch 2424M that you want to stack. The Gigabit Stacking Transceivers installed in modules, or directly in switches, are then connected through the Stacking Cable supplied in the kit as shown in the illustration below.



To connect another switch to these two requires another Gigabit Stacking Kit.

This document describes how to install, verify, and troubleshoot the HP ProCurve Switch Gigabit Stacking Kit.

Installation Notes:

Please read these notes before proceeding.

- The illustrations in this document show the HP ProCurve Gigabit Stacking Transceivers being used in a small number of the HP networking devices that are designed to accept them. But, the procedures pertain to using these transceivers in all the HP networking devices that accept them.

As of this printing, the following HP ProCurve switches support the Gigabit Stacking Kit:

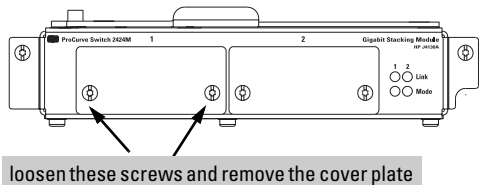
- HP ProCurve Switch 2424M (by using a Gigabit Stacking Module with the switch)
- HP ProCurve Series 2300 Switches (2312 and 2324)
- HP ProCurve Series 2500 Switches (2512 and 2524)
- For all of the networking devices that support the Gigabit Stacking Transceivers, it is *not* necessary to turn off power to the device before installing the transceiver into it:
 - For the Switch 2424M Gigabit Stacking Module, you can leave the power on to the switch, but to avoid possible damage to the transceiver circuitry, remove the Gigabit Stacking Module from the switch before installing transceivers into it, or unplug the power from the Switch 2424M. Please see the *Switch 2424M Gigabit Stacking Module Installation Guide (J4130-90001)* for more information. Reinstalling the module into the switch initializes and activates the transceivers.
 - For the Series 2300 and 2500 Switches, you can install the transceivers while the switches are powered on, but you must reset or reboot the switch after installing the transceiver to initialize and activate it.

Installation Steps

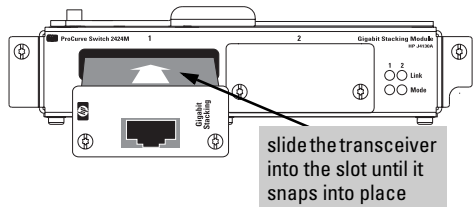
To install the HP Gigabit Stacking Kit, follow these steps:

1. **Follow anti-static precautions when handling the Stacking Transceivers and Switch 2424M Gigabit Stacking Module (if used).** When handling the transceivers (and module) and installing them in your switch, follow these procedures to avoid damage from static electricity:
 - Handle the transceivers (and module) by their bulkheads or edges and avoid touching the components and the circuitry on the boards.
 - When installing the transceivers (and module), equalize any static charge difference between your body and the switch by wearing a grounding wrist strap and attaching it to the switch's metal body, or by frequently touching the switch's metal body.
2. If the Gigabit Stacking Transceiver is being installed in a Switch 2424M Gigabit Stacking Module, first remove the module from the Switch 2424M, or unplug the Switch 2424M from the AC power source.

3. Using a flat-bladed or Torx T-10 screwdriver, unscrew the two retaining screws on the slot cover plate or existing transceiver, and remove it from the module or switch. Keep the cover plate for future use—unused transceiver slots should be kept covered for proper switch operation.



4. Slide the transceiver firmly into the transceiver slot as far as it will go. The transceiver will “snap” into place, and the transceiver's faceplate should touch the face of the module.



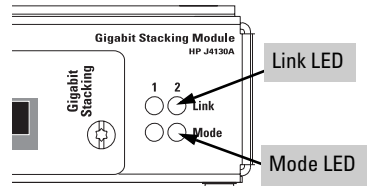
5. Using the flat-bladed or Torx T-10 screwdriver, tighten the retaining screws on the transceiver until they are secure, but *be careful that you do not overtighten the screws.*

6. If the transceiver has been installed in a Switch 2424M Gigabit Stacking Module, reinstall the module into the Switch 2424M and make sure the switch is powered on, or simply power on the switch if you did not remove the module.

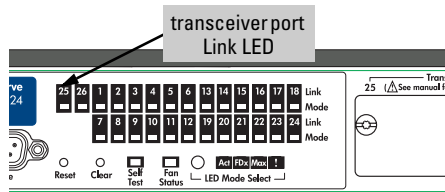
For the Series 2300 and 2500 Switches, reset or reboot the switch to initialize and activate the transceiver. (Until the Series 2300 or 2500 Switch is reset or rebooted, the Link LED for the transceiver port will flash indicating that the transceiver is not yet initialized.)

7. Check the switch or module LEDs associated with the transceiver to verify that the transceiver has been installed correctly.

For the Gigabit Stacking Module, the Link and Mode LEDs come on briefly as the transceiver port is self tested.



For the Series 2300 and 2500 Switches, the Link LED for the transceiver port stays off.



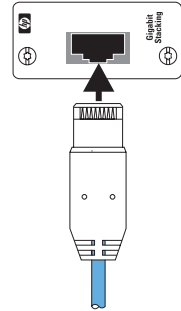
When the transceiver self test completes, the LEDs go off until a stacking cable is plugged in to the port, as described in the next section.

If the LED pattern is different than what is described above, especially if the transceiver Link LED and the switch Fault LED blink simultaneously, please see the “Troubleshooting” section on page 6.

Connect the Stacking Cable to the Transceiver Ports

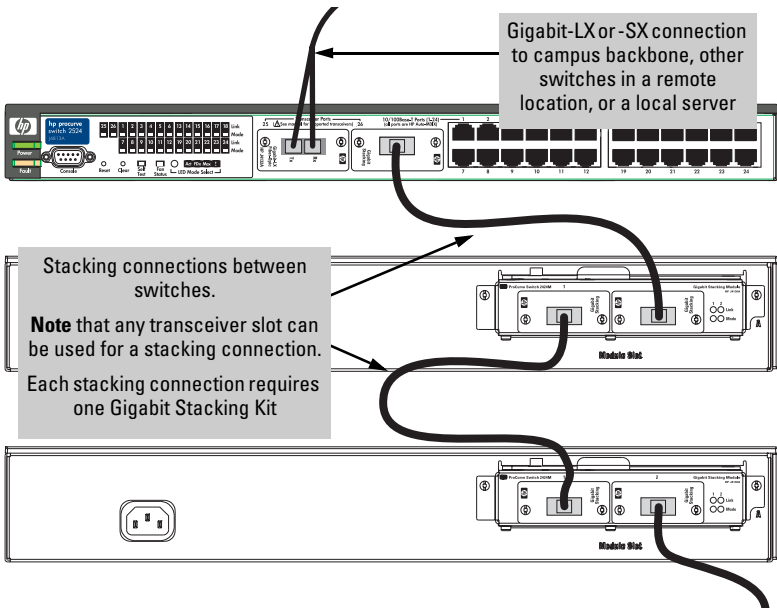
To connect the 0.5-meter Stacking Cable to the transceiver:

1. Press the cable connector into the transceiver jack so that the connector snaps securely into place.
2. Repeat for the Stacking Transceiver in the other switch at the other end of the cable.



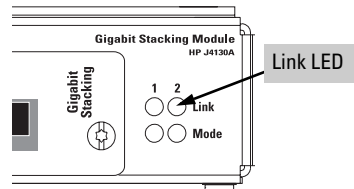
Note: If you need a longer stacking connection, a 10-meter cable has also been tested and verified. The cable is AMP part number 1-1324640-0.

As shown in the next illustration, either or both of the transceiver slots in a Gigabit Stacking Module or switch can be used for a stacking connection. The switches at the top and bottom of the stack will have an unused transceiver slot that can be used for connections to other devices.



- When the transceiver is receiving power and the stacking cable is connected to another active switch, the Link LED for the transceiver port should be ON.

If the Link LED is off, see “Troubleshooting”, below.



Troubleshooting

The following indications may occur:

- **The Link LED for the transceiver is not on, even though the transceiver is receiving power and the stacking cable is connected.** Check the following:
 - Verify that both of the connected switches are powered on.
 - Check the stacking cable and connections to make sure that the connections are secure, neither connector is damaged, and that none of the connectors have a dust buildup or other object in the way that may cause interference to the connection. If all connections are OK, try a different cable.
 - Try resetting or cycling power (turn the power off and then back on) on the switch that is having the problem. If the transceiver was installed into a Gigabit Stacking Module that was “hot swapped” into the Switch 2424M, the resulting hot-swap self test does not test the transceivers. Resetting the switch causes a complete self test to be performed, which *does* test the transceivers.
- **The switch Link LED for the transceiver port is flashing.** This condition occurs on the Series 2300 and 2500 Switches. After installing the transceiver, these switches must be reset or rebooted to initialize the transceiver. The flashing LED tells you that the transceiver is not operational until the switch is reset or rebooted.
- **The switch Fault LED and Link LED for the transceiver port are flashing.** The transceiver may not be installed correctly, or it may be faulty. Disconnect power to the switch and reinstall the transceiver into the module or switch. Verify the transceiver screws are tightened securely. Reconnect power to the switch back on, and if the flashing persists, the transceiver may be faulty.

For additional troubleshooting, see the *HP ProCurve Switch 2424M Gigabit Stacking Module Installation Guide* (J4130-90001) or the *HP ProCurve Series 2300 and 2500 Switches Installation and Getting Started Guide* (5969-2353). For the managed switches, you can also use the switch's console interface, the switch's web browser interface, or HP TopTools for Hubs & Switches to troubleshoot and configure the Gigabit transceiver port. See the switch's *Management and Configuration Guide* for more information.

Customer Support Services

If you are having any trouble with your Gigabit Stacking Kit, Hewlett-Packard offers support 24 hours a day, seven days a week through the use of a number of automated electronic services. See the Customer Support/Warranty booklet that came with your Gigabit Stacking Kit for information on how to use these services to get technical support.

The HP networking products World Wide Web site, <http://www.hp.com/go/hpprocurve> also provides up-to-date support information and contact phone numbers. Click on the **Technical Support** link on that web page.

Additionally, your HP-authorized network reseller can provide you with assistance, both with services that they offer and with services offered by HP.

Gigabit Stacking Transceiver Specifications

Environmental

	Operating	Non-Operating
Temperature:	0°C to 55°C (32°F to 131°F)	-40°C to 70°C (-40°F to 158°F)
Relative humidity: (non-condensing)	15% to 95% at 40°C (104°F)	15% to 90% at 65°C (149°F)
Maximum altitude:	4.6 km (15,000 ft)	4.6 km (15,000 ft)

Electromagnetic Emissions

FCC part 15 Class A

EN55022 / CISPR-22 Class A

VCCI Class A

Complies with Canadian EMC Class A requirements

The Gigabit Stacking Kit is designed for operation with the HP ProCurve Switch 2424M and the HP ProCurve Series 2300 and 2500 Switches. The kit components are listed in the Declaration of Conformity for those switches. Contact your HP-authorized dealer or reseller if you need information about the declaration.



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