

Read Me First

for the HP ProCurve Series 2300 and 2500 Switches

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Software Updates Are *Free!*



Hewlett-Packard provides free software updates on the HP ProCurve website for your Series 2300 and 2500 switches. To access the software updates, go to the ProCurve website at <http://www.hp.com/go/procurve>, then click on **Free Software Updates**.

Register for Automatic Notification of Updates. From the Free Software Updates page you can also register yourself to automatically receive email notice of new updates for your managed ProCurve networking products. Just follow the instructions on that page for how to receive the update notices.

To determine whether you have the latest software, you can compare the software version that is available on the website with the version that is currently installed on your switch. Follow the instructions below to determine the current software version on your switch.

To Determine the Current Software Version in Your Switch. For the Series 2500 switches, use any of the following methods to view the version; for the Series 2300, use the second method:

- Start a console session with the switch. In the console login screen (the first screen displayed), the **Firmware revision** line under the switch name shows the software version.
 - If you already have a console session going or are connected to the Download Port on a Series 2300 switch, at the prompt enter the command **show version**. In the resulting display, the current software version is listed.
 - In the web browser interface, click on the Identity tab. The current software version is listed as the **revision** number in the **Version** line.
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Your *Free* Ticket to Proactive Networking for Your Series 2500 Switch!

HP TopTools for Hubs & Switches is a breakthrough in network management software that gives you more network with less work. The TopTools for Hubs & Switches CD is included at no extra charge with your HP ProCurve Series 2500 switch. See the system requirements printed on the sleeve containing the HP TopTools CD.

Additions to the Installation and Getting Started Guide

The following information pertains to the use of transceivers with your Series 2300 and 2500 switches.

Note

In the following text, any mention of negotiation of “flow control” assumes that flow control is **Enabled** for the port, which allows the negotiation. In the default configuration, for the Series 2300 switches, flow control *is* enabled; for the Series 2500 switches, flow control is disabled, but can be enabled through the switch console or other configuration interface.

Default Configuration for Transceivers. The default configurations for the following high-speed transceivers, which can be installed in your Series 2300 and 2500 switches, are as follows:

- All transceivers, when installed in your Series 2300 and 2500 switches — the transceivers operate only in full duplex mode; half-duplex mode is not available.
- Gigabit-SX and Gigabit-LX transceivers — **Auto**. The speed and communication mode are set at 1000 Mbps and full duplex, according to the standards, and the switch auto negotiates flow control with the connected device.
- 100-FX — **100/Full**. The port runs at 100 Mbps, full duplex.
- 100/1000-T — **Auto**. The communication mode is set at full duplex, the switch auto senses the link speed, and auto negotiates the flow control and the port MDI/MDI-X operation.

Connecting the Transceivers to Devices with Fixed Configurations. For some older network devices, including some older HP ProCurve devices, the default for the Gigabit-SX and -LX ports is a fixed configuration, for example 1000 Mbps/Full Duplex, or is otherwise different from these default configurations for the transceivers. As a result, those devices may not connect properly to your Series 2300 and 2500 switches; you will not get a link. Additionally, if you connect the 100/1000-T Transceiver, in its default configuration, to another device that has *any* fixed (non-Auto) configuration, you will not get a link.

In summary, this is how the transceivers behave if connected to a device with a *fixed* configuration:

- 100-FX Transceiver — a good connection to a 100 Mbps/full duplex device; a link but very poor performance if connecting to a 100 Mbps/half duplex device because of the resulting duplex mismatch between your switch and the connected device.
- Gigabit-SX and Gigabit-LX Transceivers — no link unless the transceiver configuration is modified to match the fixed configuration of the connected device (configuration changes possible on Series 2500 only); these devices operate only at full duplex according to the standards.
- 100/1000-T Transceiver — no link unless the transceiver configuration is modified to match the fixed configuration of the connected device (configuration changes possible on Series 2500 only), or the connected device is another HP ProCurve switch configured to either the **Auto-100** or **Auto-1000** options.

Make Sure the Configurations Match. Because of these default configuration and full-duplex considerations, for best operation, you should make sure that the devices connected to the transceiver ports are configured the same as the default configurations shown above. At minimum, make sure the configurations match. Note that for the Series 2300 switches, there is no console port, so the configuration cannot be altered, and you must change the configuration on the connected device to match the default configuration on your switch ports.

Changing Connection Speeds to the 100/1000-T Transceiver. If you connect the 100/1000-T transceiver to a device that operates at one speed (for example 100 Mbps), and subsequently disconnect from that device and connect to a device that operates at a different speed (for example 1000 Mbps), you must reset the Series 2300 or 2500 switch for the new speed to take effect. Until you reset the switch, in some cases the link will not complete; in other cases the link will complete but at the former speed. For example, when changing from a 100 Mbps connection to a connection with a 100/1000Base-T device, you may get a completed link, but it will be operating at the old speed—100 Mbps.

Manual Changes:

To correct your switch *Installation and Getting Started Guide* (5969-2353) relative to the above information, please keep the following information with the guide and note the pages where this information applies:

Page 3-2 — change the bulleted item titled “**Connecting to devices that have a fixed full-duplex configuration**” to the following:

■ Connecting to devices that have a fixed configuration:

- **Connecting with the fixed RJ-45 ports:** The Series 2300 and 2500 fixed RJ-45 ports have a default configuration of **Auto**. That is, when connecting to attached devices, the switch will operate in one of two ways to determine the link speed and the communication mode (half duplex or full duplex):
 - if the connected device is also configured to Auto, the switch will automatically negotiate link speed, communication mode, and flow control and a valid link should occur
 - if the connected device has a *fixed* configuration, for example 100 Mbps, at half or full duplex, the switch will automatically sense the link speed, but will default to a communication of *half* duplex

Because the Series 2300 and 2500 switches behave in this way (*in compliance with the IEEE 802.3 standard*), if a device connected to the switch’s fixed RJ-45 ports has a fixed configuration at *full* duplex, a duplex mismatch occurs between the switch and the connected device. The result will be high error rates and very inefficient communications between the switch and the device.

Make sure that all devices connected to the fixed RJ-45 ports on the Series 2300 and 2500 switches are configured to auto negotiate, or are configured to connect at half duplex (all hubs are configured this way, for example).

- **Connecting with the transceivers:** The HP ProCurve High-Speed Transceivers, when installed in your Series 2300 and 2500 switches, are given a default configuration and operate in specific ways as described below (*on the previous two pages in this Read Me First*). Please read this information to determine the effect of connecting the transceivers to devices with fixed configurations.

Page 3-3 — Add the information on page 2 and the top of page 3 of this Read Me First to the manual before the bullet titled “**Check the port configuration (Series 2500 Switches only)**”.

page 3-6 — Under the Diagnostic Tip ⑥, add the following bulleted items:

- Make sure that the configurations for the switch port and the port on the connected device are the **same**. Incompatible port configurations will result in failure to link or in a link that has very poor performance.
- Make sure that if you change the connection between the 100/1000-T Transceiver and a device operating at one speed (for example, 100 Mbps) to a connection to a device operating at a different speed (for example, 1000 Mbps), that you reset the switch after the connection change. Until you reset the switch, the link may not complete successfully (no Link LED), or the link may complete successfully but will continue to operate at the former speed, not at the new connection speed.

