Quick Start Guide

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Cisco Small Business

SLM2048, SLM2024, SLM248G, SLM248P, SLM224G, SLM224P Smart Switch
Welcome

Thank you for choosing the Cisco Small Business Series Smart Gigabit Switch. The Smart Switches offer the following interfaces:

- The SLM2024 and SLM2048 offer twenty four (24) or forty eight (48) gigabit copper ports, with two (2) shared copper or optical (SFP) uplink interfaces for connecting the switch to the core network.

- The SLM224G, SLM224P, SLM248G, and SLM248P offer twenty four (24) or forty eight (48) 10/100 copper ports, with two (2) shared gigabit copper or optical (SFP) uplink interfaces for connecting the switch to the core network.

This guide describes how to physically install your Smart Switch, connect network devices, and launch the Web-based configuration utility.

1 Getting to Know the Switch

SLM2024 and SLM2048

The following section describes the SLM2024 and SLM2048 switches. The front panel of the SLM2048 is shown.

Front Panel

Gigabit — (1-24 or 1-48) (Amber) Lights up to indicate a functional 1000 Mbps connection on the corresponding port (1 through 24 or 48) to an attached device.

To establish a gigabit Ethernet connection by using a miniGBIC port, you must install a MGBT1, MGBSX1, or MGBLH1 gigabit expansion module and use Category 5e cabling or fiber optic cabling.
To establish a Fast Ethernet connection using a miniGBIC port, you will need to install a MFEFX1 (100BASE-FX) or MFELX1 (100BASE-LX) 100SFP transceiver and use fiber optic cabling.

**NOTE**
On the SLM2024 and SLM2048, miniGBIC ports are shared with standard ports. If a miniGBIC port is used, then the shared standard port on the switch cannot be used. The following table defines the shared port mapping of the SLM2024 and SLM2048 switch.

<table>
<thead>
<tr>
<th>Switch Model</th>
<th>miniGBIC Port</th>
<th>Standard Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLM2024</td>
<td>miniGBIC 1</td>
<td>Port 12</td>
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<tr>
<td>SLM2024</td>
<td>miniGBIC 2</td>
<td>Port 24</td>
</tr>
<tr>
<td>SLM2048</td>
<td>miniGBIC 1</td>
<td>Port 24</td>
</tr>
<tr>
<td>SLM2048</td>
<td>miniGBIC 2</td>
<td>Port 48</td>
</tr>
</tbody>
</table>

**SLM248G, SLM248P, SLM224G, and SLM224P**

The following section describes the SLM248G, SLM248P, SLM224G, and SLM224P switches. The front panel of the SLM248P is shown.

**Front Panel**

PoE — (Amber) Blinks to indicate that power is being supplied to a device attached to the corresponding port. PoE is available on:

- SLM224P ports 1-6, and 13-18
- SLM248P ports 1-12, and 25-36

100M (1-24 or 1-48) — (Amber) Appears on the “G” models of the switch on each port, and lights up to indicate a functional 100 Mbps connection on the corresponding port with an attached device. Appears on the “P” models of the switch only on the non-PoE ports:

- SLM224P ports 7-12, and 19-24
- SLM248P ports 13-24, and 37-48

Gigabit — (G1-G2) (Amber) Lights up to indicate a functional 1000 Mbps connection on the corresponding port (G1-G2) with an attached device.
G1-G2 — The switch is equipped with two autosensing gigabit Ethernet network ports, which use RJ-45 connectors. The gigabit Ethernet ports support network speeds of 10 Mbps, 100 Mbps, or 1000 Mbps. They can operate in half- and full-duplex modes. Auto-sensing technology enables each port to automatically detect the speed of the device connected to it (10 Mbps, 100 Mbps, or 1000 Mbps), and adjust its speed and duplex accordingly.

To establish a gigabit Ethernet connection using a miniGBIC port, you must install a MGBT1, MGBSX1, or MGBLH1 gigabit expansion module and use Category 5e cabling or fiber optic cabling. To establish a Fast Ethernet connection using a miniGBIC port, you must install a MFEFX1 (100BASE-FX) or MFELX1 (100BASE-LX) 100SFP transceiver and use fiber optic cabling.

**NOTE**

On the SLM248G, SLM248P, SLM224G, and SLM224P switches, miniGBIC ports are shared with standard ports. If a miniGBIC port is used, the shared standard port on the switch cannot be used. The following table defines the shared port mapping of the switch.

<table>
<thead>
<tr>
<th>Switch Model</th>
<th>miniGBIC Port</th>
<th>Standard Port</th>
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</thead>
<tbody>
<tr>
<td>SLM248G/P</td>
<td>miniGBIC 1</td>
<td>Port G1</td>
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<tr>
<td>SLM248G/P</td>
<td>miniGBIC 2</td>
<td>Port G2</td>
</tr>
<tr>
<td>SLM224G/P</td>
<td>miniGBIC 1</td>
<td>Port G1</td>
</tr>
<tr>
<td>SLM224G/P</td>
<td>miniGBIC 2</td>
<td>Port G2</td>
</tr>
</tbody>
</table>

**LEDs and Ports Common to all Switch Models**

**System** — (Green) Lights up to indicate that the switch is powered on. Blinks while the switch is performing a system self-test.

**LNK/ACT** — (Green) Lights up to indicate a functional network link through the corresponding port to an attached device. Blinks to indicate that the switch is actively sending or receiving data through that port.

**Reset** — Press and hold the Reset Button for less than ten seconds to reboot the switch. Press and hold the Reset Button for more than ten seconds to reset the switch's settings to the factory defaults.

**Ethernet (1-24 or 1-48)** The switch is equipped with 24 or 48 autosensing, Ethernet ports, which use RJ-45 connectors. The Fast Ethernet ports support network speeds of 10 Mbps or 100 Mbps. They can operate...
in half- and full- duplex modes. Auto-sensing technology enables each port to automatically detect the speed of the device connected to it (10 Mbps or 100 Mbps), and adjust its speed and duplex mode accordingly.

miniGBIC — (1-2) The miniGBIC (gigabit interface converter) port is a connection point for a miniGBIC expansion module, so the switch can be uplinked to another switch by using a fiber optical link. The miniGBIC port provides a link to a high-speed network segment or individual workstation at speeds of up to 1000 Mbps.

**Back Panel**

The power port is located on the back panel of the switch.

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## Installing the Switch

There are two ways to physically install the switch, either set the switch on its four rubber feet for desktop placement or mount the switch in a rack.

Before you begin the installation, make sure that you have the following equipment and services:

- Tools for installing the hardware
- Cables for WAN interfaces, desktop systems, and fiber connectivity devices, or for connecting additional additional LAN interfaces
- Computer with Microsoft Internet Explorer 6.0 or later, or Mozilla Firefox version 3 or later for using web-based system management tools

**Placement Tips**

- Make sure that the switch is accessible and that the cables can be connected easily.
- Keep cabling away from sources of electrical noise, power lines, and fluorescent lighting fixtures.
- Do not stack free-standing switches more than four units high.
- **Ambient Temperature** — To prevent the switch from overheating, do not operate it in an area that exceeds an ambient temperature of 104°F (40°C).

- **Air Flow** — Be sure that there is adequate air flow around the switch.

- **Mechanical Loading** — Be sure that the switch is level and stable to avoid any hazardous conditions.

- **Reliable earthing** — Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

**Desktop Placement**

To place the switch on a desktop, do the following:

- Attach the rubber feet to the recessed areas on the bottom of the switch.

- Place the switch on a desktop near an AC power source.

- Keep enough ventilation space for the switch and check the environmental restrictions mentioned above.

- Connect the switch to network devices according to the installation instructions below in section 4, “Connecting the Equipment”.

**Rack Mounting**

You can mount the switch in any standard size, 19-inch (about 48 cm) wide rack. The switch requires 1 rack unit (RU) of space, which is 1.75 inches (44.45 mm) high.

> **CAUTION**

Do not overload the power outlet or circuit when installing multiple devices in a rack.

**STEP 1** Place the switch on a hard, flat surface with the front panel facing you.

**STEP 2** Attach a rack–mount bracket to one side of the switch with the supplied screws and secure the bracket tightly.

**STEP 3** Follow the same steps to attach the other bracket to the opposite side.

**STEP 4** After the brackets are attached to the switch, use suitable screws to securely attach the brackets to any standard 19-inch rack.
STEP 5 Connect the switch to network devices according to the installation instructions in section 4, “Connecting the Equipment”.

3 Getting Started with the Configuration

Before you begin to use the Configuration Utility, make sure that you have a computer that meets the following requirements:

- Internet Explorer (version 6 or higher) or Firefox (version 3 or higher).
- The Web-based configuration utility is optimized for a screen resolution of 1024 x 768.

To get started configuring your switch, perform the following:

STEP 1 Connect a computer to an available LAN port.

STEP 2 Start a web browser.

STEP 3 In the address bar, enter the default IP address of the switch, http://192.168.1.254 and press Enter.
NOTE  If you have changed the switch IP address or are using DHCP to assign it, enter the new IP address assigned to the switch. The ip address of the computer you are using to configure the switch, must be on the same subnet as the switch.

STEP 4  When the login page appears, enter the user name and password. The default user name is admin. The default password is admin. Passwords are case sensitive.

STEP 5  Click Login.

STEP 6  Follow the on-screen prompts to complete the initial configuration.

4 Troubleshooting and Suggested Next Steps

Verifying the Hardware Installation
To verify the hardware installation, complete the following tasks:

- Check the cable connections.
- Check the LED states, as described in Getting to Know the Switch, page 1.
- Connect a computer to an available LAN port and verify that you can connect to a website on the Internet, such as www.cisco.com.

If you encounter problems, consider the following:

- Reset the switch to its factory default settings by holding down the reset button for 10 seconds.
- Set a temporary IP address on an attached device within the range of 192.168.1.X and subnet mask of 255.255.255.0.
- Use the ping utility to verify connectivity.
If the above recommendations do not work, try the same steps by using a different computer. The switch might have some hardware problems if the second computer also fails to establish a link, please contact technical support for further assistance.

**NOTE**
If you need help resolving a problem, visit the Cisco Small Business Support Community at [www.cisco.com/go/smallbizsupport](http://www.cisco.com/go/smallbizsupport). For technical documentation and other links, see *Where to Go From Here, page 9.*

**Returning the Switch to the Factory Default Settings**

The *Factory Default* window allows network managers to reset the switch to the factory defaults shipped with the switch. Restoring factory defaults erases the configuration file. This should only be performed as a last resort.

Restoring the factory defaults will erase all of your current configuration settings. Before you restore the factory defaults, you can save a backup of your current configuration settings from the *Save Configuration* window.

You can also restore the factory defaults of your switch by pressing and holding the Reset button on the front of the switch for more than ten seconds.

**Next Steps**

Congratulations, you are now ready to start using your switch. Consider taking some of the following steps:

- Go to the “Getting Started” section of the *Cisco Small Business SLM Smart Switch Administration Guide*. This is the starting point for detailed configuration of the switch.
- Change the default password of the switch to protect it from unauthorized access.
- Visit the software downloads area at [http://tools.cisco.com/support/downloads](http://tools.cisco.com/support/downloads) and navigate to your model of the switch. Check for the latest version of software to ensure your switch is running the most recent version of the firmware.
## Where to Go From Here

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<td>Online Technical Support and Documentation (Login Required)</td>
<td><a href="http://www.cisco.com/support">www.cisco.com/support</a></td>
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<tr>
<td>Software Downloads (Login Required)</td>
<td>Go to tools.cisco.com/support/downloads, and enter the model number in the Software Search box.</td>
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### Product Documentation

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<td>Cisco Small Business Home</td>
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<tr>
<td>Marketplace</td>
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