

QUICK INSTALLATION GUIDE

LGB5124A-R2, LGB5128A-R2

SFP GIGABIT MANAGED SWITCH ECO

24/7 TECHNICAL SUPPORT AT 1.877.877.2269 OR VISIT BLACKBOX.COM



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NOTES:

Default IP address of the switch: 192.168.1.1

Default Subnet Mask of switch: 255.255.255.0

Default Username of the switch: admin

Default Password of the switch: NONE



CHAPTER 1: INTRODUCTION

1.1 OVERVIEW

This user guide describes how to install, configure, and troubleshoot the SFP Managed Switch Eco, part numbers LGB5124A-R2 and LGB5128A-R2. By reading this user guide, users can perform the following tasks:

- ◆ Check the switch status via LEDs
- ◆ Reset the switch or to restore the switch to factory defaults
- ◆ Install the switch
- ◆ Use a Web browser to initially configure the switch
- ◆ Troubleshoot the switch

1.2 FRONT VIEW OF THE SWITCH

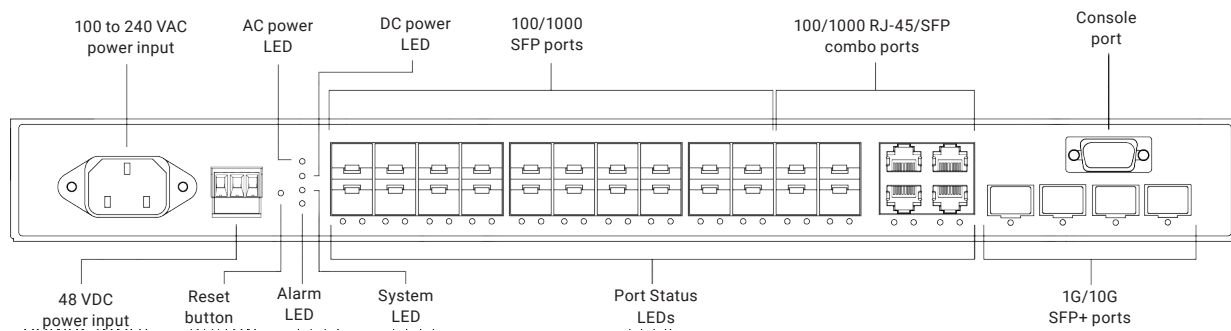


FIGURE 1-1. FRONT PANEL OF THE SWITCH

1.3 REAR VIEW OF THE SWITCH

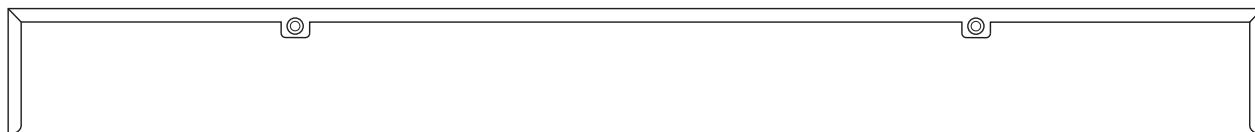


FIGURE 1-2. BACK PANEL OF THE SWITCH

CHAPTER 1: INTRODUCTION

1.4 LED DESCRIPTIONS

The LEDs on the front panel provide users with switch status checking and monitoring. There are two types of LEDs as follows:

- ♦ AC/DC Power LED: Indicates if the switch is powered up correctly or not.
- ♦ System LED: Indicates if the system is ready or not.
- ♦ Alarm LED: Indicates if the system is normal or not.
- ♦ Port Status LEDs: Indicates the current status of each port. Users can check these LEDs to understand the port status.

The following tables detail the functions and descriptions of various LED indicators.

TABLE 1-1. POWER LED

LED	COLOR	STATE	DESCRIPTION
AC Power	Green	ON	The switch is powered ON correctly
		OFF	The switch is not receiving power from power1
DC Power	Green	ON	The switch is powered ON correctly
		OFF	The switch is not receiving power from power2

TABLE 1-2. SYSTEM LED

LED	COLOR	STATE	DESCRIPTION
System	Green	ON	The switch is ready and running correctly
		OFF	The switch is not ready or failed
		Blinking	The switch is booting

TABLE 1-3. ALARM LED

LED	COLOR	STATE	DESCRIPTION
Alarm	Red	ON	An abnormal state, such as temperature, voltage or fan speed, has been detected in the switch
		OFF	The system is normal

TABLE 1-4. PORT STATUS LEDS

LED	COLOR	STATE	DESCRIPTION
RJ-45 Ports	Green	ON	The port is enabled and has established a link to the connected device, and the connection speed is 1000 Mbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1000 Mbps.
	Amber	ON	The port is enabled and established a link to connected device, and the connection speed is 10/100 Mbps.
	Amber	Blinking	The port is transmitting/receiving packets, and the connection speed is 10/100 Mbps.
	–	OFF	The port has no active network cable connected, or it is not established a link to connected device. Otherwise, the port may have been disabled through the switch user interface.
SFP Ports	Green	ON	The port is enabled and established a link to connected device, and the connection speed is 1000 Mbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1000 Mbps.
	Amber	ON	The port is enabled and established a link to connected device, and the connection speed is 100 Mbps.
	Amber	Blinking	The port is transmitting/receiving packets, and the connection speed is 100 Mbps.
	–	OFF	The port has no active network cable connected, or it has not established a link to a connected device. Otherwise, the port may have been disabled through the switch user interface.
SFP+ Ports	Blue	ON	The port is enabled and established a link to connected device, and the connection speed is 10 Gbps.
	Blue	Blinking	The port is transmitting/receiving packets, and the connection speed is 10 Gbps.
	Green	ON	The port is enabled and established a link to connected device, and the connection speed is 1 Gbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1 Gbps.
	–	OFF	The port has no active network cable connected, or it has not established a link to a connected device. Otherwise, the port may have been disabled through the switch user interface.

CHAPTER 1: INTRODUCTION

1.5 RESET BUTTON

Press the Reset button to:

- ◆ Reset the Switch: Reboot and get the switch back to the previous configuration settings saved.

TABLE 1-5. RESET BUTTON

TASK	TIME TO PRESS BUTTON	SYS LED	PORT STATUS LED
Reset the Switch	2 to 7 seconds	Blinking Green	All LEDs light OFF



CHAPTER 2: INSTALLING THE SWITCH

2.1 WHAT'S INCLUDED

Your package should include the following items. If anything is missing or damaged, contact Black Box Technical Support at 877-877-2269 or info@blackbox.com

- ◆ (1) Switch
- ◆ (1) AC power cord
- ◆ (1) terminal block
- ◆ (4) adhesive rubber feet
- ◆ This Quick Installation Guide

NOTE: The switch is an indoor device. If it is to be used with outdoor devices such as outdoor IP cameras or outdoor WiFi APs, then users are strongly recommended to install a surge protector or surge suppressor to protect the switch.

2.2 MOUNTING THE SWITCH IN A 19-INCH RACK

STEP 1: Attach the mounting brackets to both sides of the chassis. Insert screws and tighten them with a screwdriver to secure the brackets.

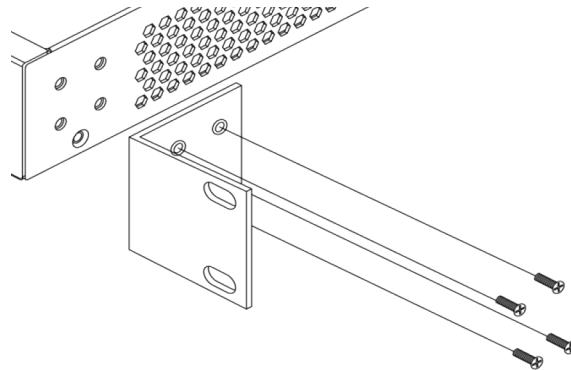


FIGURE 2-1. ATTACH THE MOUNTING BRACKETS

STEP 2: Place the switch on a rack shelf in the rack. Push it in until the oval holes in the brackets align with the mounting holes in the rack posts.

CHAPTER 2: INSTALLING THE SWITCH

STEP 3: Attach the brackets to the posts. Insert screws and tighten them.

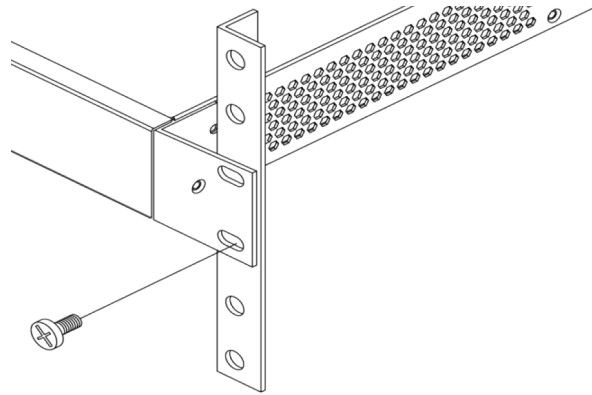


FIGURE 2-2. ATTACH THE BRACKETS TO THE RACK POST

2.3 MOUNTING THE SWITCH ON A DESK OR SHELF

STEP 1: Verify that the workbench is sturdy and reliably grounded.

STEP 2: Attach the four adhesive rubber feet to the bottom of the switch.

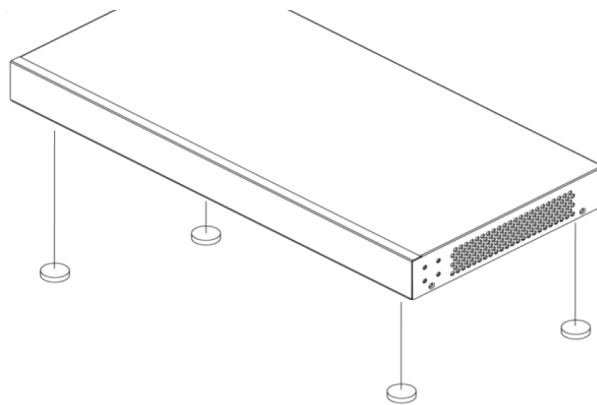


FIGURE 2-3. ATTACH THE RUBBER FEET

CHAPTER 2: INSTALLING THE SWITCH

2.4 CONNECTING THE AC POWER CORD

STEP 1: Connect the AC power cord to the AC power receptacle of switch.

STEP 2: Connect the other end of the AC power cord to the AC power outlet.

STEP 3: Check the SYS LED. If it is ON, the power connection is correct.

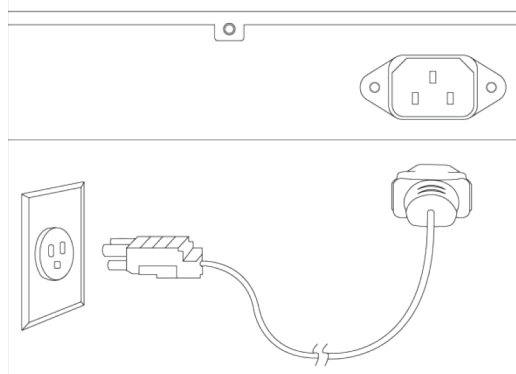


FIGURE 2-4. CONNECT THE AC POWER CORD

2.5 CONNECTING THE DC POWER CORD

STEP 1: Insert the negative/positive DC wires into the V-/V+ terminals, respectively.

STEP 2: To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the terminal block connector.

STEP 3: Insert the terminal block connector prongs into the terminal block receptor.

STEP 4: Check the SYS LED. If it is ON, the power connection is correct.

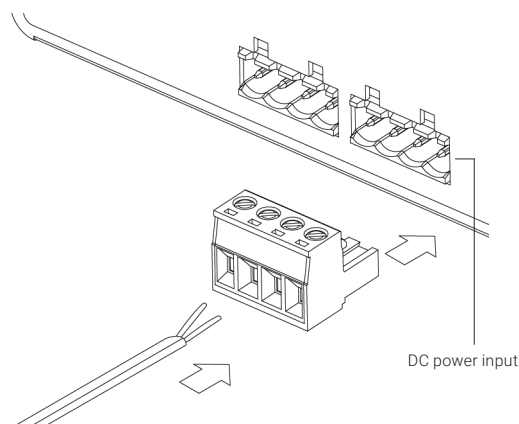


FIGURE 2-5. CONNECT THE DC POWER CORD

CHAPTER 2: INSTALLING THE SWITCH

2.6 INSTALLING SFP/SFP+ MODULES

You can install or remove a mini-GBIC SFP/SFP+ module from an SFP/SFP+ port without having to power off the switch.

STEP 1: Insert the module into the SFP/SFP+ port.

STEP 2: Press firmly to ensure that the module seats into the connector.

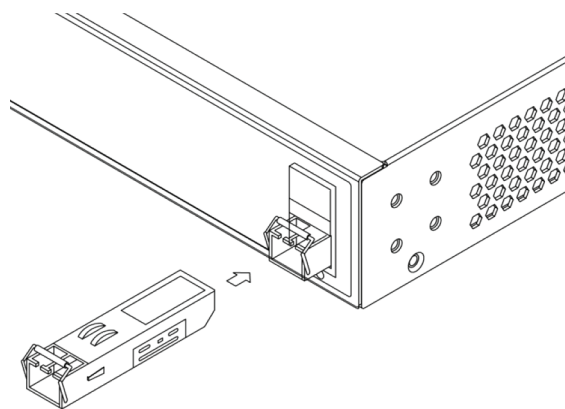


FIGURE 2-6. INSTALL AN SFP/SFP+ MODULE INTO AN SFP/SFP+ PORT

NOTE: The SFP/SFP+ ports should use UL Listed Optional Transceiver product, Rated 3.3Vdc, Laser Class 1. Compatible modules are listed below.

TABLE 2-1. COMPATIBLE SFP/SFP+ MODULES

PRODUCT CODE	DESCRIPTION
LFP411	SFP, 1250-Mbps Fiber with Extended Diagnostics, 850-nm Multimode, 550 m LC
LFP412	SFP, 1250-Mbps Fiber with Extended Diagnostics, 1310-nm Multimode, 2 km LC
LFP413	SFP, 1250-Mbps Fiber with Extended Diagnostics, 1310-nm Single-Mode, 10 km LC
LFP414	SFP, 1250-Mbps Fiber with Extended Diagnostics, 1310-nm Single-Mode, 30 km LC
LFP415	SFP with SerDes Interface, 1250 Mbps, RJ45, 1000BASE-T, Extended Diagnostics
LFP416	SFP with SGMII Interface, 1250 Mbps, RJ45, 10/100/1000BASE-T, Extended Diagnostics
LFP417	SFP with SerDes Interface, 1250 Mbps, RJ45, 1000BASE-T, Extended Diagnostics
LFP418	SFP, 1250-Mbps Fiber with Extended Diagnostics, 1550-nm Single-Mode, 80 km, LC
LFP420	SFP, 1250-Mbps Simplex Fiber with Extended Diagnostics, 1550-nm TX, 1310-nm RX, Single-Mode, 10 km, LC
LFP421	SFP, 1250-Mbps Simplex Fiber with Extended Diagnostics, 1310-nm TX, 1550-nm RX, Single-Mode, 10 km, LC
LFP401	SFP, 155-Mbps Fiber with Extended Diagnostics, 850-nm Multimode, 2 km, LC
LFP402	SFP, 155-Mbps Fiber with Extended Diagnostics, 1310-nm Multimode, 2 km, LC
LFP403	SFP, 155-Mbps Fiber with Extended Diagnostics, 1310-nm Single-Mode, 30 km, LC
LFP404	SFP, 155-Mbps Fiber with Extended Diagnostics, 1310-nm Single-Mode, 60 km, LC

CHAPTER 3: INITIAL CONFIGURATION OF THE SWITCH

3.1 INITIAL SWITCH CONFIGURATION USING WEB BROWSERS

After powering up the switch for the first time, you can perform the initial switch configuration using a web browser. For managing other switch features, please refer to the Web interface user guide for details.

To begin with the initial configuration stage, you need to reconfigure your PC's IP address and subnet mask so as to make sure the PC can communicate with the switch. After changing the PC's IP address (for example, 192.168.1.250), then you can access the Web interface of the switch using the switch's default IP address as shown below.

NOTE:

The factory default IP address of the switch is 192.168.1.1

The factory default Subnet Mask of switch is 255.255.255.0

The initial switch configuration procedure is described next.

3.2 INITIAL SWITCH CONFIGURATION PROCEDURE

The initial switch configuration procedure is as follows:

STEP 1: Power up the PC that you will use for the initial configuration. Make sure the PC has the Ethernet RJ-45 connector attached to the switch via standard Ethernet LAN cable.

STEP 2: Reconfigure the PC's IP address and Subnet Mask as below, so that it can communicate with the switch. The method to change the PC's IP address, for example, for a PC running Windows® 7/8.x/10, is as follows:

STEP 2A: Type "network and sharing" into the Search box in the Start Menu.

STEP 2B: Select Network and Sharing Center.

STEP 2C: Click on Change adapter settings on the left of PC screen.

NOTE: Users can also skip step 2A to 2C, by pressing WinKey+R and type "ncpa.cpl" command to get to step 2D directly.

STEP 2D: Right-click on your local adapter and select Properties

STEP 2E: In the Local Area Connection Properties window, highlight Internet Protocol Version 4 (TCP/IPv4) then click the Properties button.

NOTE: Be sure to record all your PC's current IP settings to be able to restore them later.

STEP 2F: Select the radio button "Use the following IP address" and enter in the IP for the PC (e.g. any IP address not in use, and in between 192.168.1.2 and 192.168.1.254), Subnet mask (e.g. 255.255.255.0), and Default gateway that corresponds with your network setup. Then enter your Preferred and Alternate DNS server addresses.

STEP 2G: Click OK to change the PC's IP address.

STEP 3: Power up the switch to be initially configured, and wait until it has finished its start-up processes.

STEP 4: Connect the PC to any port on the switch using a standard Ethernet cable, and check the port LED on the switch to make sure the link status of the PC is OK.

STEP 5: Run your Web browser on the PC, enter the factory default IP address, so you can access the switch's Web interface.

CHAPTER 3: INITIAL CONFIGURATION OF THE SWITCH

If your PC is configured correctly, you will see the login page of the switch as shown in Figure 3-1.

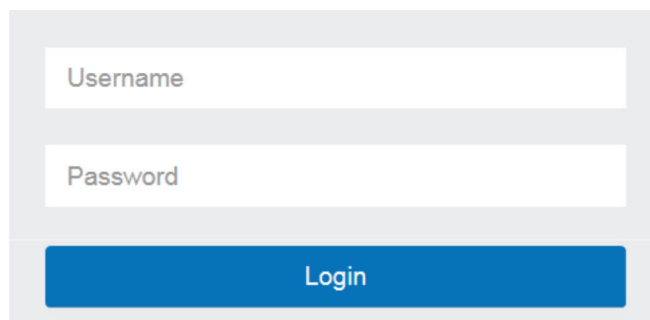
The image shows a web interface login page. It consists of a light gray rectangular container. Inside the container, there are two white input fields stacked vertically. The top field is labeled "Username" and the bottom field is labeled "Password". Below these fields is a solid blue button with the word "Login" written in white text.

FIGURE 3-1. WEB INTERFACE LOGIN PAGE

If you do not see the above login page, perform the following steps:

- ◆ Refresh the web page.
- ◆ Check to see if there is an IP conflict issue.
- ◆ Clean browser cookies and temporary internet files.
- ◆ Check your PC settings again and repeat step 2.

STEP 6: Enter the factory default username and password in login page. Click “Login” to log into the switch.

NOTE:

The factory default Username of the switch is **admin**.

There is no factory default Password of the switch.

The following table provides information for users to easily troubleshoot problems by taking actions based on the suggested solutions.

TABLE 4-1. TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SUGGESTED SOLUTIONS
System LED is OFF	The switch is not receiving power	<ol style="list-style-type: none">1. Check if correct power cord is connected firmly to the switch and to the AC/DC outlet socket.2. Perform power cycling the switch by unplugging and plugging the power cord back into the switch.3. If the LED is still off, try to plug power cord into a different AC/DC outlet socket to make sure correct AC/DC source is supplied.
Port Status LED is OFF	The port is not connected or the connection is not working	<ol style="list-style-type: none">1. Check if the cable connector plug is firmly inserted and locked into the port at both the switch and the connected device.2. Make sure the connected device is up and running correctly.3. If the symptom still exists, try a different cable or a different port, in order to identify if it is related to the cable or specific port.4. Check if the port is disabled in the configuration settings via the Web user interface.

CHAPTER 5: DISCLAIMER/TRADEMARKS

5.1 DISCLAIMER

Black Box Corporation shall not be liable for damages of any kind, including, but not limited to, punitive, consequential or cost of cover damages, resulting from any errors in the product information or specifications set forth in this document and Black Box Corporation may revise this document at any time without notice.

5.2 TRADEMARKS USED IN THIS MANUAL

Black Box and the Black Box logo type and mark are registered trademarks of Black Box Corporation.

Any other trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.



NOTES

NEED HELP?
LEAVE THE TECH TO US

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Lined area for taking notes, consisting of multiple horizontal dashed lines.



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