

Click for
Table of Contents



ntents



EdgeSwitch



Rack-Mount Brackets (Qty. 2)



Bracket Screws (M4, Qty. 8)



Mounting Screws (Qty. 4)



Cage Nuts (Qty. 4)



Power Cord

Installation Requirements

- Phillips screwdriver (for rack- or wall-mounting)
- Standard-sized, 19" wide rack with a minimum of 1U height available (for rack-mounting)
- Use compatible fiber SFP modules with the appropriate fiber optic cabling. For information about compatible fiber SFP modules, visit: ubnt.link/SFP_DAC_Compatibility
- For indoor applications, use Category 5 (or above) UTP cabling approved for indoor use.
- For outdoor applications, shielded Category 5 (or above) cabling should be used for all wired Ethernet connections and should be grounded through the AC ground of the power supply.

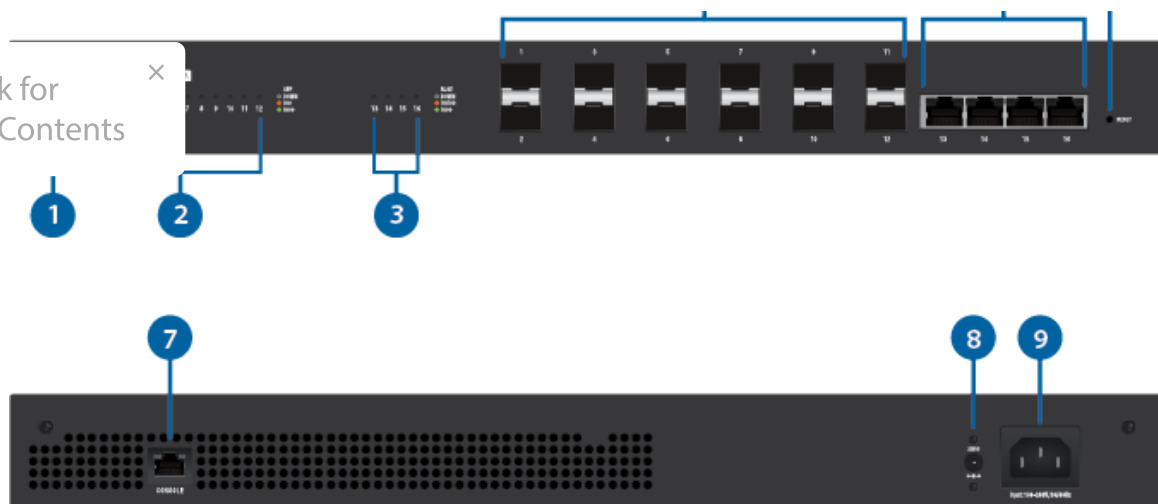
We recommend that you protect your networks from harmful outdoor environments and destructive ESD events with industrial-grade, shielded Ethernet cable from Ubiquiti. For more details, visit: ui.com/toughcable



Note: Although the cabling can be located outdoors, the EdgeSwitch itself should be housed inside a protective enclosure.

Hardware Overview

Click for
Table of Contents



Note: The System LED functionality has been updated with firmware v1.8.0. We recommend that you update the EdgeSwitch to the latest firmware.

1 System LED

Flashing White	Bootup in progress.
White	Ready for use, not connected to Ubiquiti® Network Management System (UNMS™).
Blue	Ready for use, connected to UNMS.
Steady Blue with Occasional Flashing	Ready for use, unable to connect to UNMS, check connection to UNMS server.
Quickly Flashing Blue	Used to locate a device in UNMS.
Alternating Blue/White	Firmware upgrade in progress.

2 SFP Speed/Link/Act LED (Ports 1 - 12)

Off	No Link
Amber	Link Established at 100 Mbps Flashing Indicates Activity
Green	Link Established at 1000 Mbps (1 Gbps) Flashing Indicates Activity

3 RJ45 Speed/Link/Act LED (Ports 13 - 16)

Off	No Link
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Click for
Table of Contents



Link Established at 1000 Mbps (1 Gbps)

Flashing Indicates Activity

4 SFP (Ports 1 - 12)

Hot-swappable SFP ports support 1 Gbps connections. Ports 1-8 also support 100 Mbps.

5 RJ45 (Ports 13 - 16)

RJ45 ports support 10/100/1000 Ethernet connections.

6 Reset Button

There are two methods to reset the EdgeSwitch to factory defaults:

Runtime Reset (Recommended)

The EdgeSwitch should be running after bootup is complete, and the System LED is white. Press and hold the Reset button. The EdgeSwitch will reboot, and the System LED becomes blue after three seconds. Continue to hold the Reset button for about 15 seconds until the System LED flashes blue for two seconds. This indicates that the EdgeSwitch has reset to its factory defaults.

Power-on Reset

1. Disconnect the power from the EdgeSwitch.
2. While connecting the power to the EdgeSwitch, hold the Reset button for about 15 seconds until the System LED flashes blue for two seconds. This indicates that the EdgeSwitch has reset to its factory defaults.

7 Console

RJ45 serial console port for Command Line Interface (CLI) management. Use an RJ45-to-DB9, serial console cable, also known as a rollover cable, to connect the Console port to your computer. Then configure the following settings as needed:

- Baud rate 115200
- Data bits 8
- Parity NONE
- Stop bits 1
- Flow control NONE

8 DC Input

The 25VDC input can connect a redundant or stand-alone DC power source (not included) with minimum power: 56W, 25 to 16V, and 2.5 mm DC power inline connector.



Note: You can use the redundant DC power source as a hot spare; if the internal AC/DC power supply no longer provides power, then the EdgeSwitch will switch to the DC power source without interrupting its operation.

Connect the included Power Cord to the Power port.

[Click for
Table of Contents](#)

Installation

Mounting in a Rack (Optional)

1.

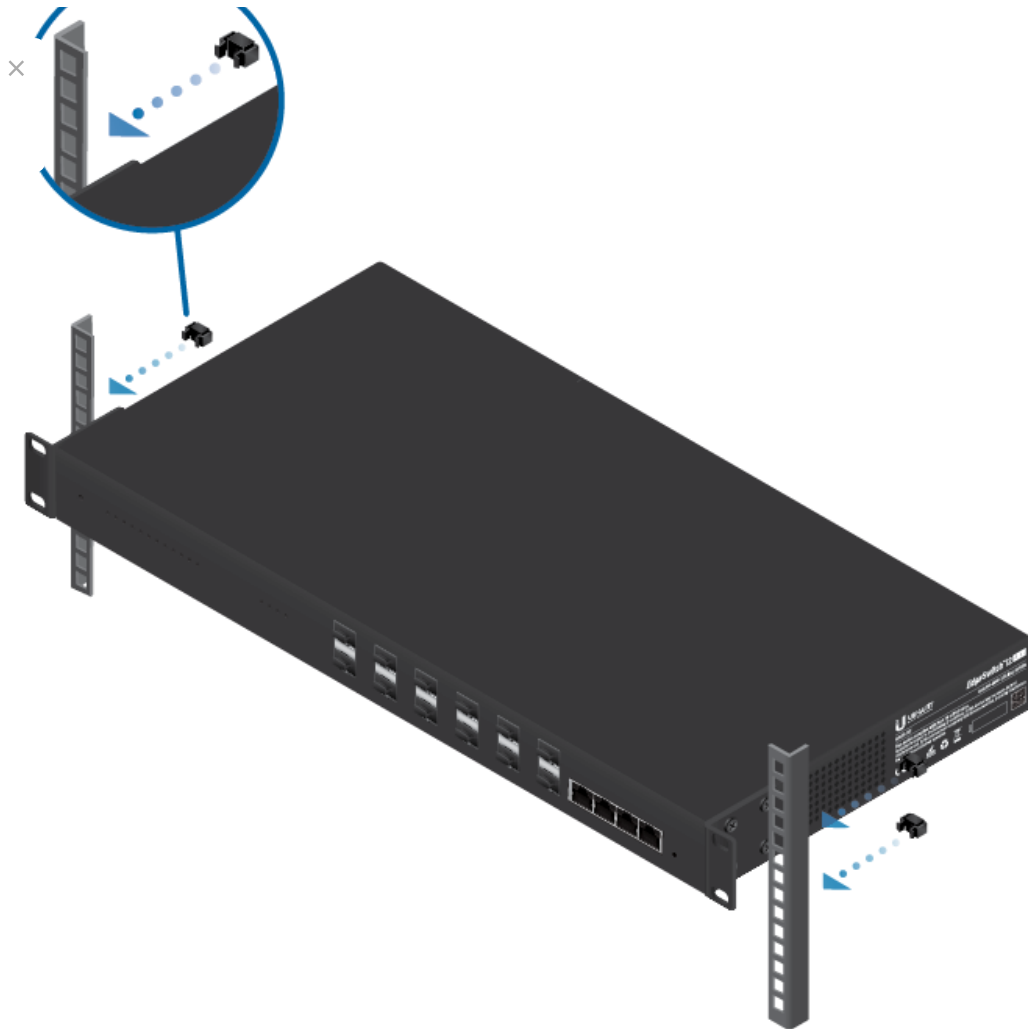


2.



OR

[Click for
Table of Contents](#)



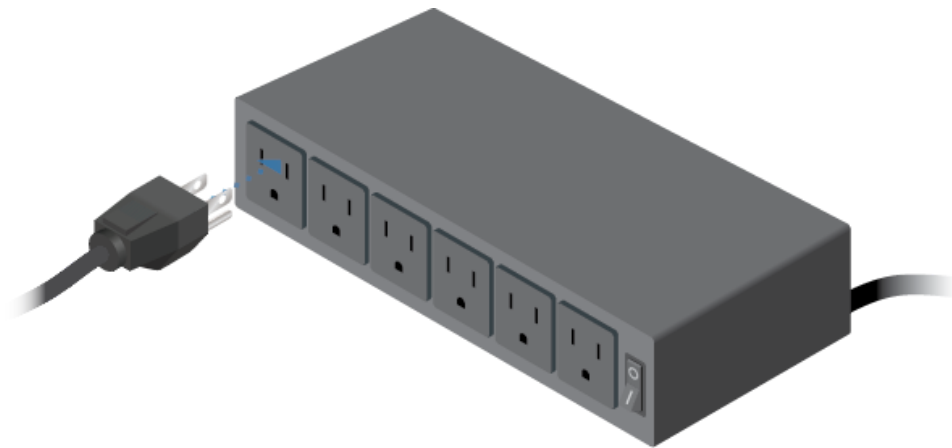
Connecting Power

1.

[Click for
Table of Contents](#)



2.



Connecting SFP

1.

 Click for
Table of Contents

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2.



3.

Click for
Table of Contents



Connecting RJ45



Accessing the Configuration Interface

The EdgeSwitch is set to DHCP by default, so it will try to automatically obtain an IP address. If that fails, then it will use the default fallback IP address, 192.168.1.2. Proceed to the appropriate section, DHCP or [“Fallback IP Address”](#):

DHCP

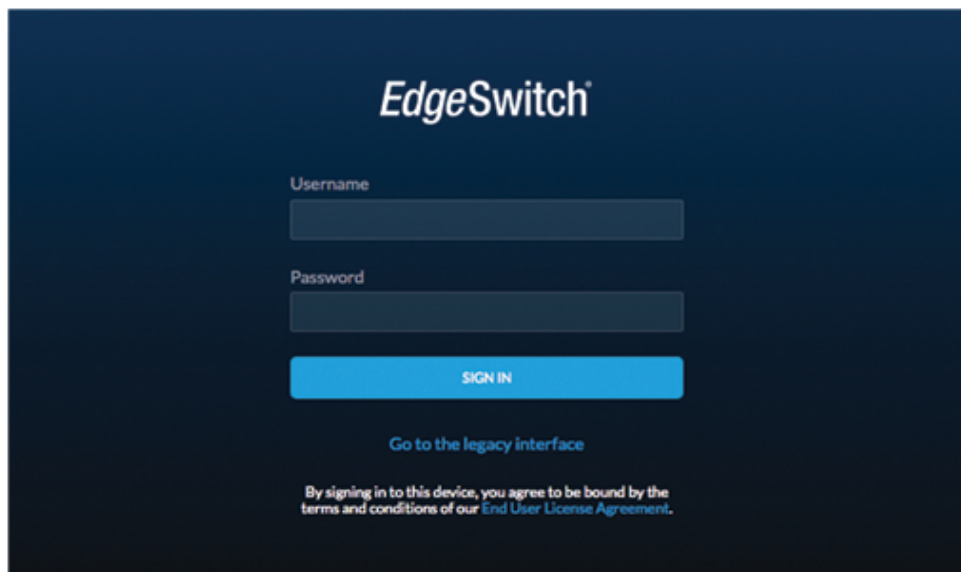
Use one of the following methods:

- Set up the DHCP server to provide a specific IP address to the EdgeSwitch based on its MAC address (on the label).

To log in, follow these steps:

Click for Table of Contents × Web browser. Type the appropriate IP address in the address field. Press enter (Mac).

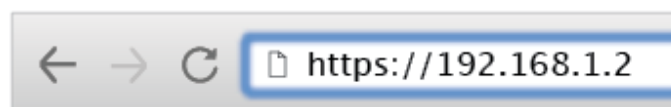
2. Enter ubnt in the Username and Password fields. Click Sign In.



The EdgeSwitch Configuration Interface will appear. Customize additional settings as needed. For more information, refer to the EdgeSwitch documentation, which is available at ui.com/download/edgemax

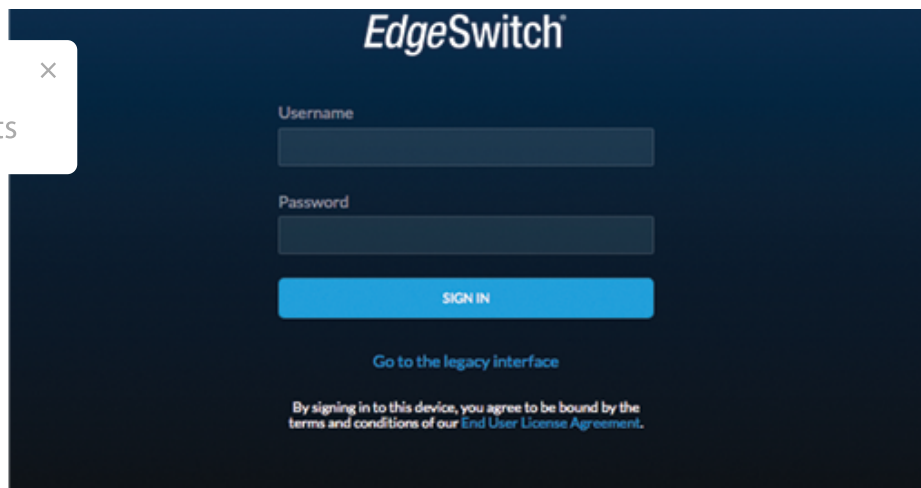
Fallback IP Address

1. Ensure that your computer (or other host system) is connected to the EdgeSwitch.
2. Configure the Ethernet adapter on your host system with a static IP address on the 192.168.1.x subnet.
3. Launch your web browser. Type the appropriate IP address in the address field (192.168.1.2 is the default fallback IP address). Press enter (PC) or return (Mac).



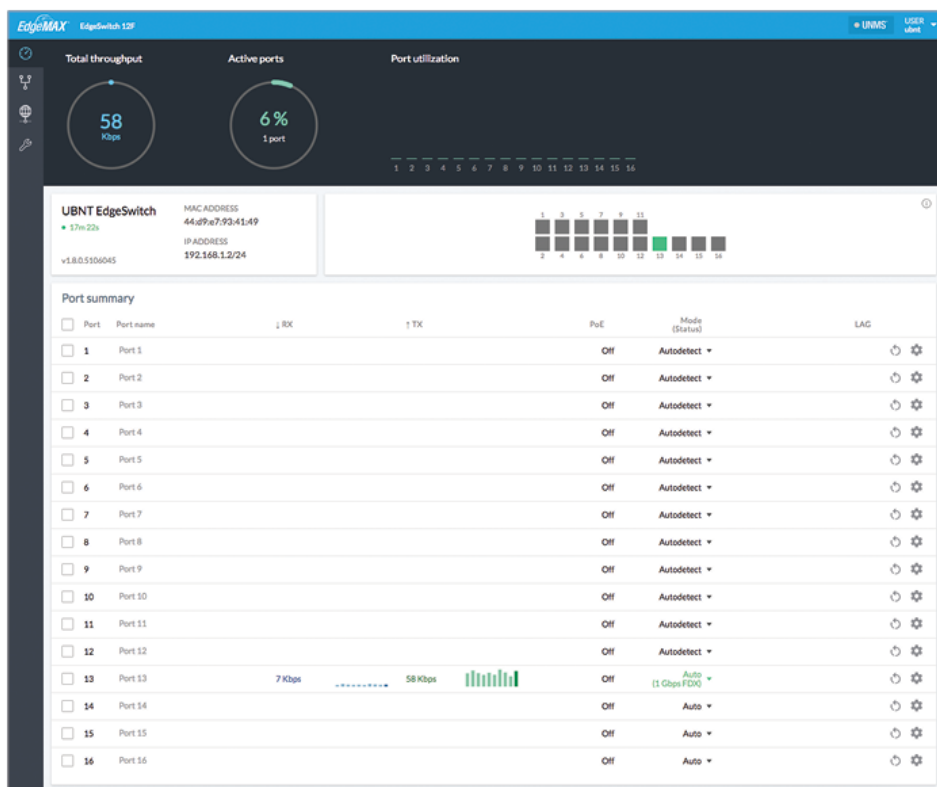
4. Enter ubnt in the Username and Password fields. Click Sign In.

Click for
Table of Contents



The login screen for EdgeSwitch features a dark blue background. At the top center is the 'EdgeSwitch' logo. Below it are two input fields: 'Username' and 'Password'. A blue 'SIGN IN' button is positioned below the password field. A link 'Go to the legacy interface' is located below the button. At the bottom, a disclaimer states: 'By signing in to this device, you agree to be bound by the terms and conditions of our End User License Agreement.'

5. The EdgeSwitch Configuration Interface will appear. Click the System Settings tab.



6. Change the IP Address to a unique IP address. Click Apply.

Click for
Table of Contents

The screenshot displays the UNMS configuration page for a device named 'UBNT EdgeSwitch'. The interface is organized into several sections:

- Management IP:** Contains IPv4 and IPv6 settings. IPv4 is configured with a static IP of 192.168.1.2, subnet mask 255.255.255.0, and gateway 1. IPv6 is enabled with a link-local address fe80::add9:a71f:93:a149::64.
- Spanning Tree Protocol:** Set to MSTP (802.1s) with a max age of 20, hello time of 2, forward delay of 15, and priority of 32768.
- Services:** Includes UNMS (disabled), Remote system log (disabled), SSH server (enabled on port 22), Telnet server (disabled on port 23), Web server (enabled on port 80 and secure port 443), and SNMP client (enabled with two NTP servers: 1.ubnt.pool.ntp.org and 2.ubnt.pool.ntp.org).
- System actions:** Buttons for Backup and Restore.



Note: If you change the IP settings, then the session will be cut off, and you will need to reconnect to the EdgeSwitch using the new IP address.

Customize additional settings as needed. For more information, refer to the EdgeSwitch documentation, which is available at ui.com/download/edgemax

UNMS Management

You can manage your device using UNMS, which lets you configure, monitor, upgrade, and back up your devices using a single application. Get started at www.unms.com

Specifications

ES-12F	
Dimensions	443 x 221 x 43 mm (17.44 x 8.70 x 1.69")
Weight	
Rack-Mount Brackets Included	2.68 kg (5.91 lb)
Rack-Mount Brackets Excluded	2.59 kg (5.71 lb)
Total Non-Blocking Line Rate	16 Gbps
Max. AC Power Consumption	56W
Power Method	
AC	100-240VAC/50-60 Hz, Universal Input
DC	DC 56W, 25 to 16V, with 2.5 mm DC Power Inline Connector
Power Supply	AC/DC, Internal, 56W DC
Supported Voltage Range	100 to 240VAC 25 to 16VDC

ES-12F Data Port	Speed/Link/Activity
<div> <div>Click for</div> <div>Table of Contents</div> </div> <div> <div>×</div> <div>faces</div> </div>	<div> <div>(8) 100/1000 Mbps SFP Ethernet Ports</div> <div>(4) 1000 Mbps SFP Ethernet Ports</div> <div>(4) 10/100/1000 Mbps RJ45 Ethernet Ports</div> <div>(1) RJ45 Serial Port Out-of-Band, Ethernet In-Band</div> </div>
Management Interface	
Rackmount	Yes, 1U High
ESD/EMP Protection	Air: ± 24 kV, Contact: ± 24 kV
Shock and Vibration	ETSI300-019-1.4 Standard
Operating Temperature	-5 to 40° C (23 to 104° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC

Safety Notices

1. Read, follow, and keep these instructions.
2. Heed all warnings.
3. Only use attachments/accessories specified by the manufacturer.



WARNING: Failure to provide proper ventilation may cause fire hazard. Keep at least 20 mm of clearance next to the ventilation holes for adequate airflow.



WARNING: To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.



WARNING: Do not use this product in location that can be submerged by water.



WARNING: Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

Electrical Safety Information

1. Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
2. There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
3. This equipment is provided with a detachable power cord which has an integral safety ground wire intended for connection to a grounded safety outlet.
 - a. Do not substitute the power cord with one that is not the provided approved type. Never use an adapter plug to connect to a 2-wire outlet as this will defeat the continuity of the grounding wire.
 - b. The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.
 - c. Contact a qualified electrician or the manufacturer if there are questions about the installation prior to connecting the equipment.

e. Protective bonding must be installed in accordance with local national wiring rules and regulations.

Click for
Table of Contents

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warranty

ui.com/support/warranty

The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.

Compliance

FCC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions.

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

ISED Canada

CAN ICES-3(A)/NMB-3(A)

Australia and New Zealand



Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

CE Marking

CE marking on this product represents the product is in compliance with all directives that are applicable to it.



WEEE Compliance Statement

Declaration of Conformity

Click for
Table of Contents

