

ER-12P Quick Start Guide



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tents



EdgeRouter ER-12P



Wall Mount Screws (Qty. 2)



Wall Mount Anchors (Qty. 2)



Ground Screw



Power Adapter (24V, 2.5A)



Power Cord



Cable Clip

Installation Requirements

- Wall mounting (optional)
 - Drill with 6 mm drill bit
 - Phillips screwdriver
- 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

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and destructive ESD events with industrial-grade, shielded Ethernet cable from

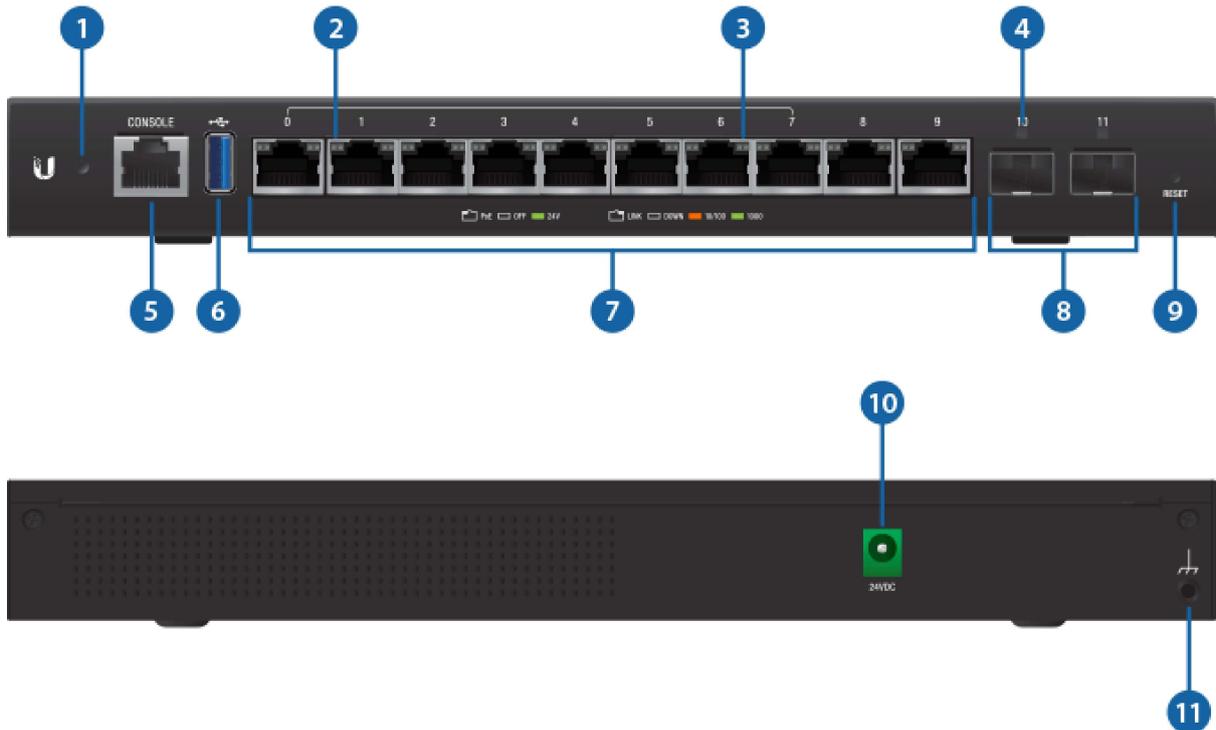
Click for details, visit: ui.com/toughcable

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ough the cabling can be located outdoors, the EdgeRouter itself

should be housed inside a protective enclosure.

Hardware Overview



1 System LED	
Flashing White	Bootup in progress.
White	Ready for use, not connected to Ubiquiti® Network Management System (UNMS™). See “UNMS Management” .
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 RJ45 PoE LED (Ports 0 - 9)	

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Green

24V Passive PoE Output

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x

Link/Activity LED (Ports 0 - 9)

Off	No Link
Amber	Link Established at 10/100 Mbps
Amber Flashing	Link Activity at 10/100 Mbps
Green	Link Established at 1000 Mbps (1 Gbps)
Green Flashing	Link Activity at 1000 Mbps (1 Gbps)

4 SFP Link/Activity LED (Ports 10 - 11)

Off	No Link
Green	Link Established at 1 Gbps
Green Flashing	Link Activity at 1 Gbps

5 Console

RJ45 serial console port for Command Line Interface (CLI) management.

6 USB

Reserved for future use.

7 RJ45 (Ports 0 - 9)

All RJ45 ports can be used for routing. They support 10/100/1000 Mbps Ethernet connections and 24V Passive PoE output. Ports 0 - 7 can be configured for switching functions using the EdgeOS® Configuration Interface.

8 SFP (Ports 10 - 11)

SFP routing ports are hot-swappable and support Gigabit fiber SFP modules.

9 Reset Button

[Click here](#) to learn how to reset an EdgeRouter to factory defaults.

10 Power

Connect the included Power Adapter to the Power port.

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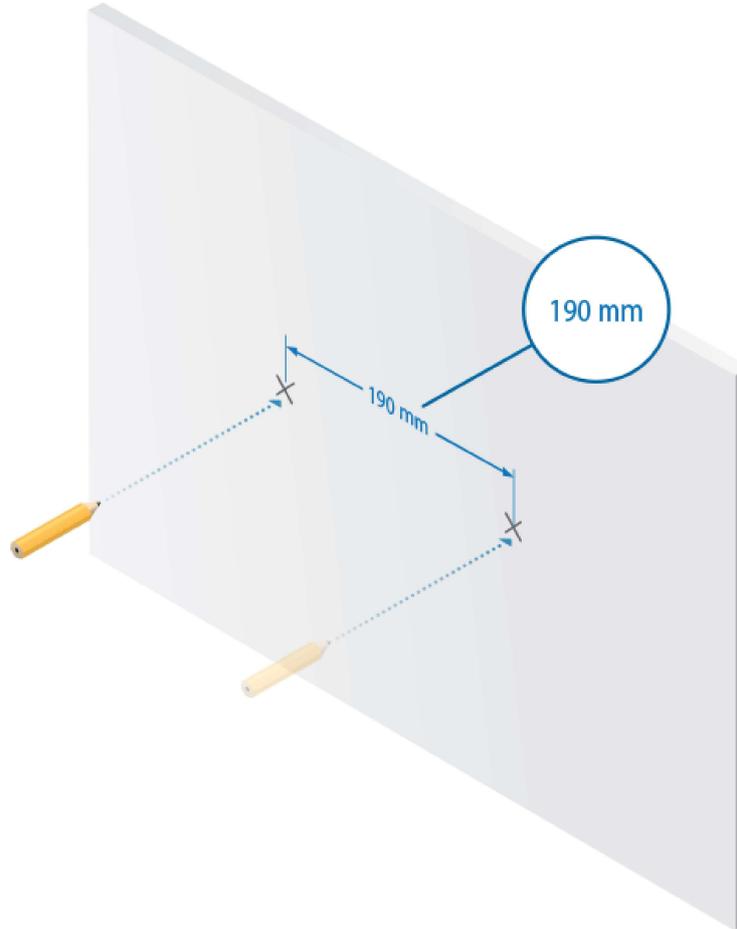
Ground bonding point for an optional ground wire.

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Installation

Wall Mounting

1.

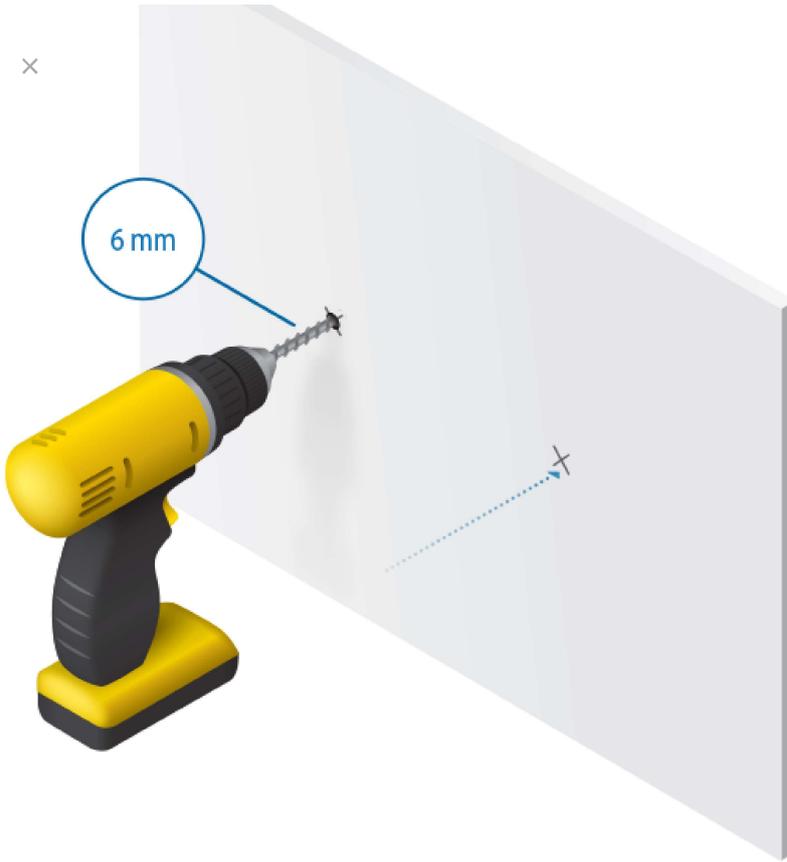


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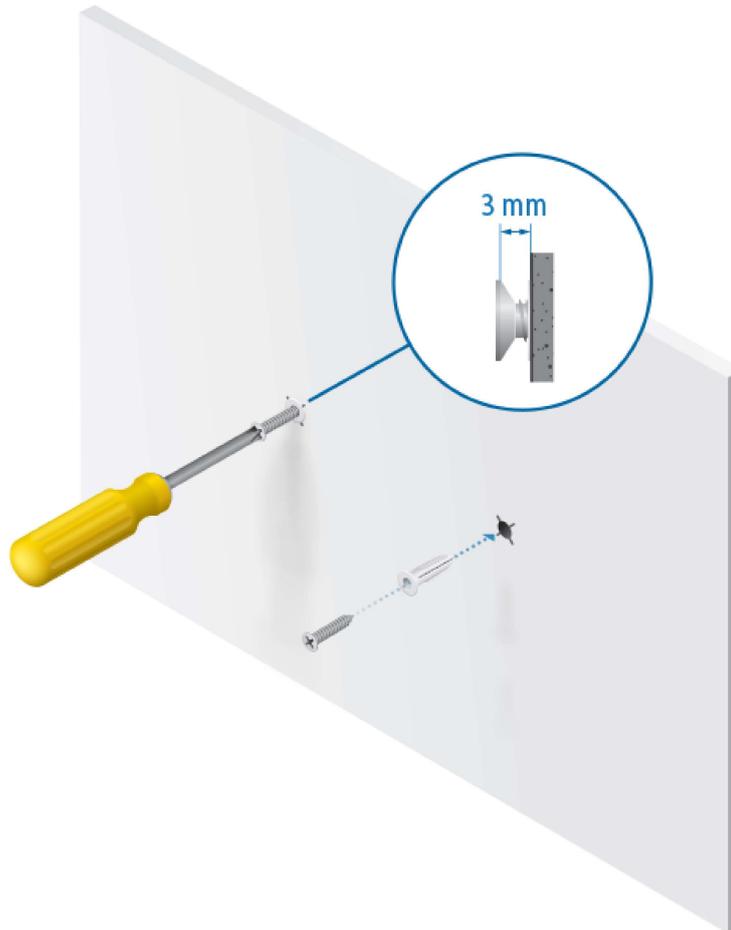
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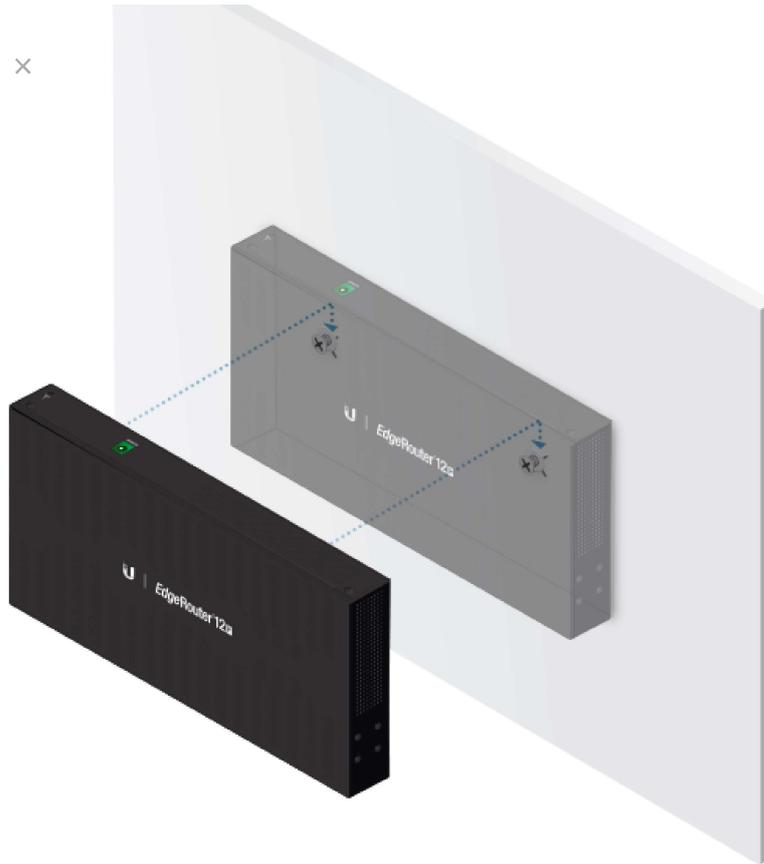
3.



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Grounding the EdgeRouter (Recommended)

The Power Adapter grounds the device; however, you can add optional ESD grounding for enhanced ESD protection (ground wire not included).



Optional

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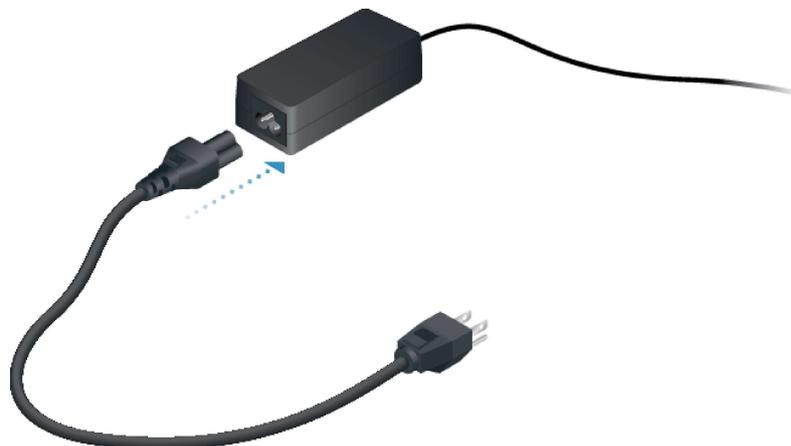


Connecting Power

1.



2.

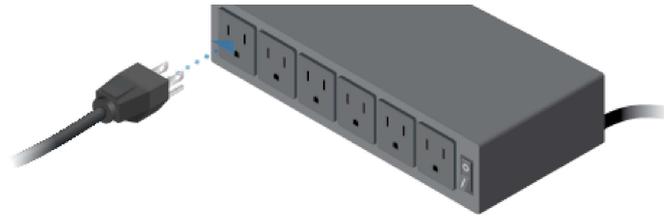


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Using SFP Ports

1.

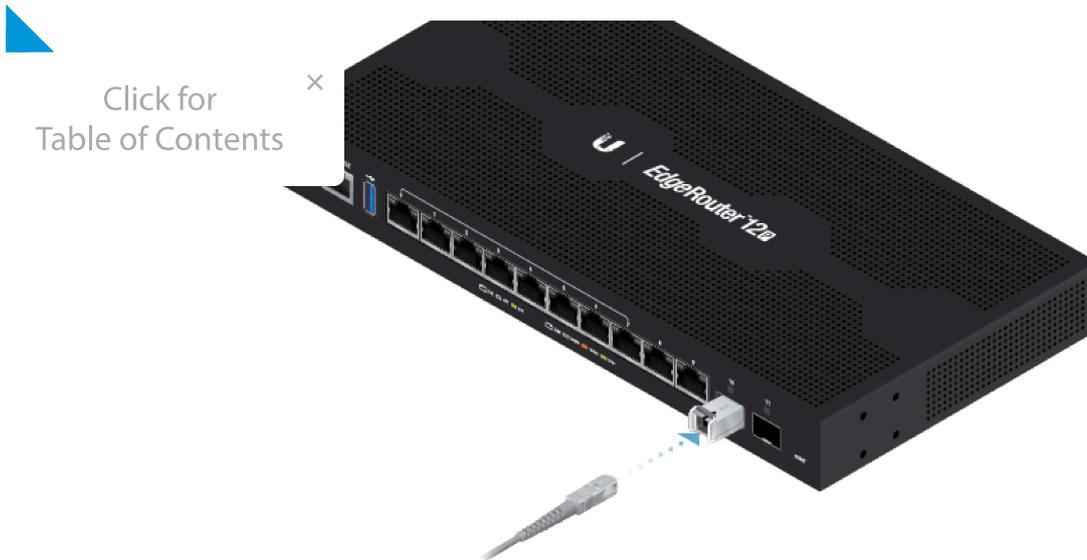


2.



3.

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For information about compatible fiber SFP modules, visit:
ubnt.link/SFP_DAC_Compatibility

Accessing the EdgeOS Configuration Interface

The EdgeOS® configuration interface can be accessed via DHCP or static IP address assignment. By default, eth1 is set up as a DHCP client, while eth0 is assigned a static IP address of 192.168.1.1. To configure the EdgeRouter, proceed to the appropriate section: DHCP or [“Static IP Address”](#).

DHCP

1. Connect an Ethernet cable from eth1 on the EdgeRouter to a LAN segment that has an existing DHCP server.

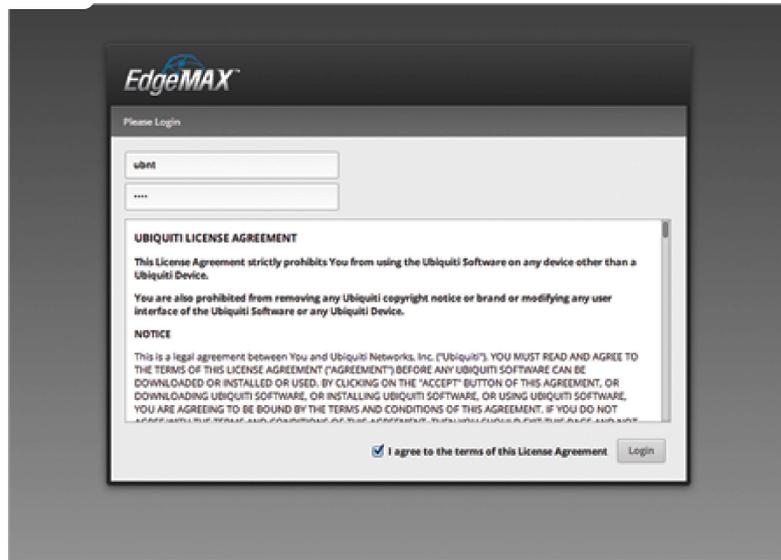


2. To check the IP address of the EdgeRouter, use one of the following methods:
 - Set up the DHCP server to provide a specific IP address to the EdgeRouter based on its MAC address (on the label).
 - Let the EdgeRouter obtain an IP address and then check the DHCP server to see which IP address was assigned.

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4. Enter `ubnt` in the Username and Password fields. Read the Ubiquiti License Agreement the box next to I agree to the terms of this License and accept it. Click Login.

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The EdgeOS Configuration Interface will appear, allowing you to customize your settings as needed. For more information, refer to the EdgeOS User Guide, which is available at ui.com/download/edgemax

For more information on PoE configuration, refer to ["Configuring PoE Settings"](#).

Static IP Address

1. Connect an Ethernet cable from the Ethernet port on your computer to the port labeled eth0 on the EdgeRouter.

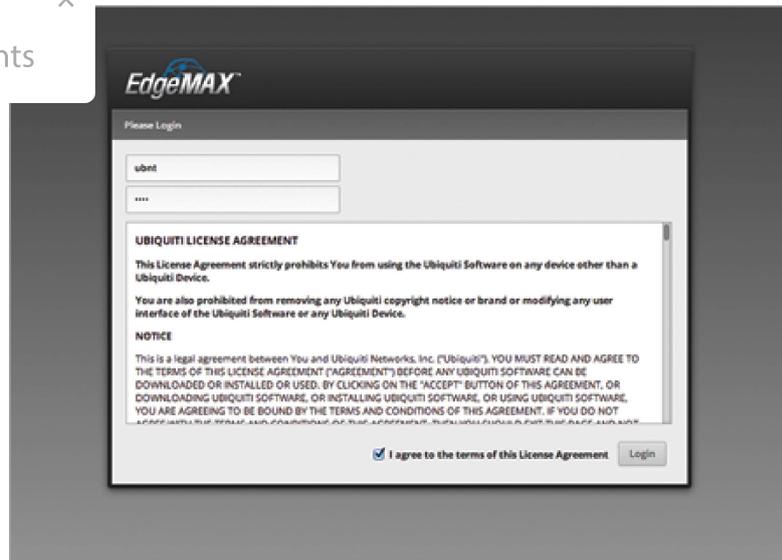


2. Configure the Ethernet adapter on your host system with a static IP address on the 192.168.1.x subnet.
3. Launch your web browser. Type `https://192.168.1.1` in the address field. Press enter (PC) or return (Mac).

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Agreement to accept it. Click Login.

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The EdgeOS Configuration Interface will appear, allowing you to customize your settings as needed. For more information, refer to the EdgeOS User Guide, which is available at ui.com/download/edgemax

For more information on PoE configuration, refer to [“Configuring PoE Settings”](#).

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

Configuring PoE Settings

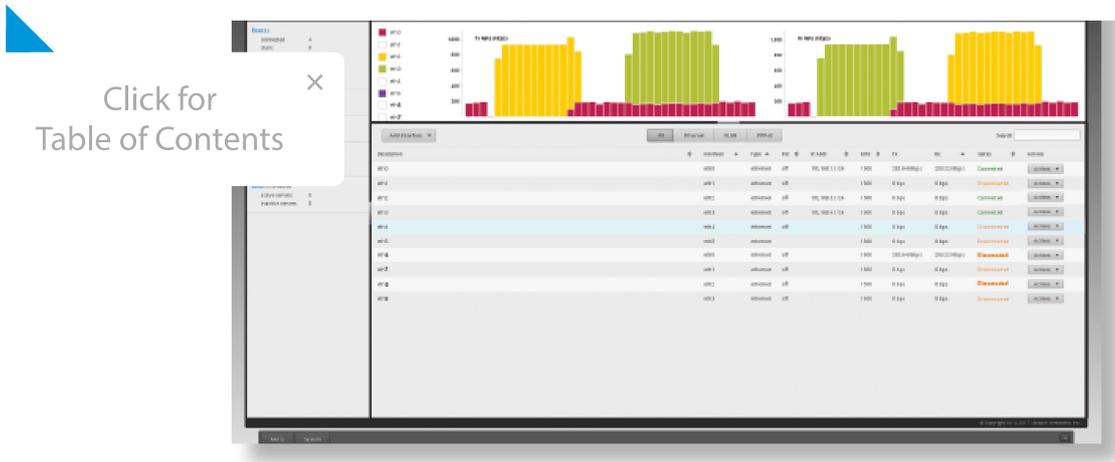
The PoE setting for ports 0 - 9 is set to Off by default.



WARNING: Before activating PoE, ensure that the connected device supports passive PoE and the supplied voltage.

1. In the Dashboard tab, click Actions > PoE of the Ethernet port you want to configure.

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2. The Interface Configuration window will appear. Select the appropriate PoE setting, and click Save.



3. The Ethernet port's PoE LED will confirm the PoE setting.



For detailed instructions on configuring other features, please refer to the EdgeOS User Guide. The User Guide is available at ui.com/download/edgemax

Specifications

ER-12P	
Dimensions	268.1 x 136.5 x 31.1 mm (10.55 x 5.37 x 1.22")
Weight	700 g (1.54 lb)
Max. Power Consumption	20W (Excludes PoE Output)
Power Method	External AC/DC Power Adapter, 60W (24VDC, 2.5A) (Included)
Power Supply	External AC/DC Adapter
Supported Voltage Range	9 - 30VDC

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Button	Reset
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SFP Data Port	Link/Activity
Processor	4-Core 1 GHz MIPS64
System Memory	1 GB DDR3 RAM
On-Board Flash Storage	4 GB eMMC, 8 MB SPI NOR
ESD/EMP Protection	Air: ± 24 kV, Contact: ± 24 kV
Interfaces Management	(1) RJ45 Serial Port (10) Ethernet Ports (Default Port 0)
Networking	(10) 10/100/1000 RJ45 Ports (2) 1 Gbps SFP Ports
Operating Temperature	-10 to 40° C (14 to 104° F)
Operating Humidity	10 - 90% Noncondensing
Certifications	CE, FCC, IC
PoE with 24VDC Power Adapter	
PoE Interfaces	(10) 24V Passive PoE Ports, 2-Pair (Pins 4, 5+; 7, 8-)
Passive PoE Max. Wattage per Port	17W (24V)
Passive PoE Voltage Range	24V: 20 to 30V

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.

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1. Compliance is required with respect to voltage, frequency, and current requirements indicated on the equipment's label. Connection to a different power source than those specified may result in operation, damage to the equipment or pose a fire hazard if the limitations are not followed.

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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.
 - d. Protective earthing is provided by Listed AC adapter. Building installation shall provide appropriate short-circuit backup protection.
 - e. Protective bonding must be installed in accordance with local national wiring rules and regulations.
4. The product is used in Service Access Area.

Limited 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

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Australia and New Zealand

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equipment is compliant with Class A of CISPR 32. In a residential
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

Online Resources



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