

Edge™ v2
MP 10x5 Series
Quick Installation Guide



IMPORTANT!

For regulatory information and latest product updates, including firmware and the MIBs, please visit Proxim's support site at <http://support.proxim.com>.

The device must be installed by a trained professional who is familiar with radio frequency planning and regulatory limits.

Introduction

The Proxim Edge™ is designed to deliver both point-to-point, and point-to-multipoint connectivity. The budget-friendly Edge™ is ideally suited to WISP high-density deployments but also enables a wide range of applications where advanced Quality of Service, reliable connectivity, versatility, and easy network deployments are needed. This device leverages Proxim's proven wireless technology, including WORP® (Wireless Outdoor Router Protocol), and introduces Proxim BlueConnect™; our new Bluetooth enabled mobile management application.

Products Covered in This Guide

Model		
MP-1015-BS3	MP-1025-BS3	MP-1035-CPE
MP-1045-BS3	MP-1055-BS3	

Package Contents

Each shipment includes the items listed in the following table. Please verify that you have received all the parts in the shipment, prior to the installation.

What's in the Kit	MP-1015-BS3 MP-1025-BS3	MP-1045-BS3 MP-1055-BS3	MP-1035-CPE (6 of each in one pack)
Edge Device			
PoE Injector with country specific power cord / plug			
US - US power cord WD & TH - US and EU power cord / plug adapter			-
Connector Weather Proofing Kit			
Pole Mounting Kit			
Grounding Kit			-
Quick Installation Guide			

Device Overview

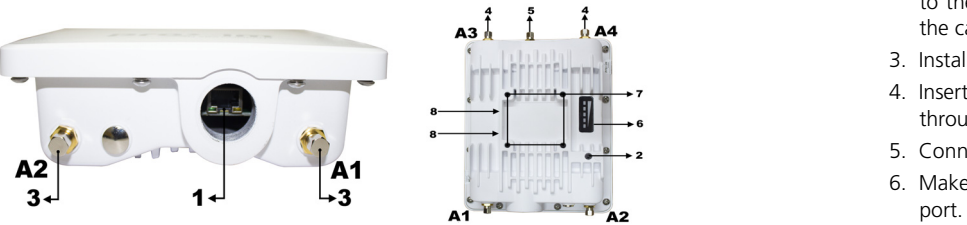


Figure 1: MP-1035-CPE, MP-10x5-BS3

The device contains the following features (not all features are available for every variant):

Item	Features	Description
1	Ethernet Port	<ul style="list-style-type: none">PoE IN and DataDebugging and Management
2	Grounding Point	<ul style="list-style-type: none">A provision to ground the device.
3	5 GHz Antenna Ports (A1 and A2)	<ul style="list-style-type: none">A provision to connect external antenna in MIMO 2x2 mode.Connect A1 to antenna Vertical Polarity port and A2 to antenna Horizontal Polarity port. <p>Notes: Antenna ports A1 and A2 are not available for Edge MP-1035-CPE.</p>
4	5 GHz Antenna Ports (A3 and A4)	<ul style="list-style-type: none">A provision to connect external antenna in MIMO 4x4 mode (in addition to A1 and A2).Connect A3 and A4 to antenna Slant Polarity ports. <p>Notes: Antenna ports A3 and A4 are only available for Edge MP-1015-BS3 and MP-1025-BS3.</p>
5	GPS Connector	<ul style="list-style-type: none">A provision to connect passive GPS antenna for device positioning. <p>Notes: GPS antenna port is only available for Edge MP-1015-BS3 and MP-1025-BS3.</p>
6	RSSI Display	<ul style="list-style-type: none">Displays boot up information (see Signal LED Behavior section).Displays RSSI signal level from weak (1 LED) to Strong (5 LED) once the RF link is established.
7	Mounting Holes	<ul style="list-style-type: none">A provision to connect 1000-UMK mounting kit (provided with Edge MP-1015-BS3 and MP-1025-BS3) or 10000-UMK mounting kit (optional).
8	Hose Clamp Slits	<ul style="list-style-type: none">A provision to attach hose clamps (1/2 inch or 12 mm width) for pole mounting.
<p>Important: Edge device includes a dual polarization 15 dBi panel antenna which is enabled by default. To use external antenna instead, switch to external antenna mode via BlueConnect application or via Web GUI. Refer to the antenna switching procedure in the Device Management Guide.</p>		

Weatherproofing RJ45 Connection

The following steps explain how to weatherproof the RJ45 connection:

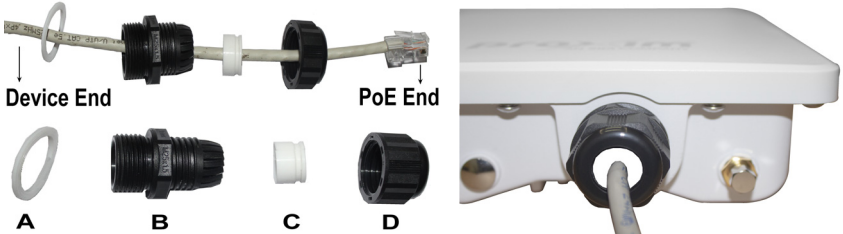


Figure 2: Weatherproofing RJ45 Connection

1. Use an outdoor rated CAT5e cable with a straight-through termination on both ends.

2. Insert the CAT5e cable through the Sealing Nut (D) and install the Compression Washer (C) to the cable. Compression Washer (C) has a slit in the middle for quick installation onto the cable.
3. Install the parts (D) and (C) in the direction as shown in Figure 2.
4. Insert the Flat Washer (A) onto the Connector Body (B) and then insert the CAT5e cable through the Connector Body (B).
5. Connect the cable end of RJ45 connector into Ethernet port of the device.
6. Make sure that the locking latch of RJ45 Connector is properly inserted into the ethernet port.
7. Fasten the Connector Body Assembly to the Device Ethernet port hole and fully tighten it.
8. Slide and Insert the Compression Washer (C) into the Connector Body Assembly.
9. Fasten the Sealing Nut (D) to the Connector Body Assembly and fully tighten it to weatherproof the cable.

Additional Weatherproofing Steps

To add an additional layer of protection to connectors against the environment, do the following:

1. Wrap vinyl tape in a half-lapped fashion, from the weatherproof connector end and continue wrapping down 3 inches onto the CAT5e cable.
2. Next, wrap a layer of the butyl mastic tape over the adhesive side of the tape, covering all of the tape and connector.
3. Wrap a final layer of vinyl tape over the butyl layer and cover the entire tape assembly.
4. Place a small zip tie over the last wrap of tape to prevent it from unwrapping over time.

For a detailed explanation of weatherproofing RJ45 connectors and RP-SMA connections, refer to Edge™ 10x5 Series Hardware Installation Guide at <http://support.proxim.com>.

Assemble the Mounting Hardware (When provided with the device)

1. Place the L-Shaped Mounting Bracket onto the bottom of the device and align with the four mounting holes.
2. Insert the Screw, Spring Washer and Flat Washer into the four mounting holes as shown in Figure 3 view (B).
3. Tighten the four screws to a torque of 100 lbf-in / 115 kgf-cm.
4. The last image in Figure 3 view (C) shows the fully assembled mounting hardware attached to the device.

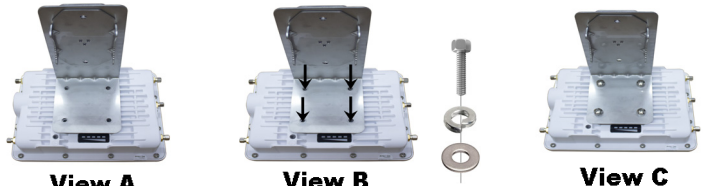


Figure 3: Assemble the Mounting Hardware

Mount the Device (Depending on the provided pole mounting kit)

1. To pole-mount the device to a 1.5 to 3.25 inch diameter pole, place the fully assembled mounting hardware along with the device against the pole and insert the U-bolt through the holes provided on full axis plate on the Mounting Bracket.
2. Insert the Toothed Washer, Spring Washer, Flat Washer and Nut on both ends of the U-bolt as shown in Figure 4.
3. Tighten the nut slightly so that the U-bolt is adjustable for pole mounting. After adjusting the angle of the device, fully tighten the nut.



Figure 4: Pole Mounting

1. To pole mount the device, insert the two Hose Clamps through the hose clamp slits at the back of the Device. See Figure 5.
2. Place the device against the pole and tighten the hose clamps to the pole.

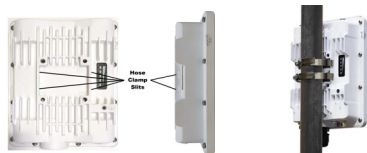


Figure 5: Pole Mounting

Plug in the Cables

1. Plug one end of the straight-through Cat5/Cat5e cable into the Ethernet Port of the device by following the Weatherproofing steps explained above.
2. Connect the other end of the cable into the **OUT / POE** port on the PoE Injector.
3. To connect the device to a network through a switch, connect an Ethernet cable between the switch and the RJ45 **IN / LAN** port on the PoE Injector.
4. To connect the device directly to a Personal Computer, connect an Ethernet cable between the network interface card in the Personal Computer and the RJ45 **IN / LAN** port on the PoE Injector.

Note: Edge MP-10x5-BS3 is supplied with a passive PoE injector. It can also be powered up via 802.3af/at power injector or switch.

Edge MP-1035-CPE is supplied without PoE injector. It needs to be powered up via 802.3af/at power injector or switch.

The following figure is the pictorial representation of the cabling setup.

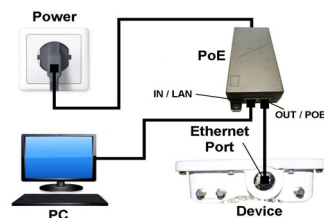


Figure 6: Cabling Setup

Install Surge Protector

Edge™ 10x5 Series comes with a built-in Ethernet surge protection; however, it is mandatory to install an approved lightning surge protector at the building ingress point. Moreover, if you are installing the device in a region subjected to violent thunderstorms or severe weather conditions, then installation of an additional approved lightning surge protector near the device is recommended.

Note: To buy an additional Surge Protector (Part Number: 235-00001), place an order separately with your distributor.

Perform the following steps to ensure proper surge protection:

1. Mount a surge protector near the building ingress and use 10AWG or larger wire to connect the surge protector's ground lug to earth ground.
2. The outdoor device and co-located surge protector should have a common grounding point using the shortest possible grounding cable.

Note: Use Outdoor-rated, UV protected, shielded CAT5e cable for the following.

3. Connect an RJ45 terminated cable between the indoor equipment and to the port on the surge protector at the building ingress.
4. Connect an RJ45 terminated cable between the surge protector and the outdoor device on Ethernet Port.

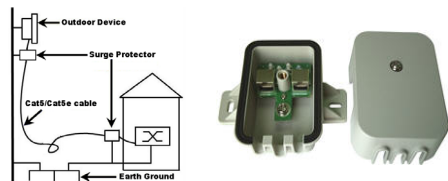


Figure 7: Surge Protector

IMPORTANT: Ensure to loop the cable before entering the premise to prevent water ingress.



Ground the Device

To ensure proper grounding, attach a ground wire of at least 12 AWG stranded to the device at either of the ground points which are located at the bottom corners of the device and use the grounding screw provided. It is important to follow the grounding guidelines below to protect the device against lightning or ESD events:

1. Connect one end of the grounding cable to the device and the other end to the closest earth ground point at the installation site.
2. Remove any extra ground wire length when finished connecting it to the single point earth ground.
3. Avoid sharp bends, loops or coiling the ground wire, always connect it straight to ground.
4. A proper earth ground impedance is less than 1.0 ohm.
5. Measure ground impedance at the point where the surge protector ground wire is connected and not at the grounding rod.
6. Connect the surge protector ground wire and equipment ground (both power ground and telecomm ground) to a single common ground.
7. Make sure all connections are fastened securely and tight.
8. Never install a link during a storm and always follow your local safety codes.

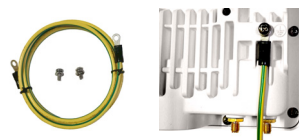


Figure 8: Grounding the Device

Note: Edge MP-10x5-BS3 is supplied with grounding kit.

Edge MP-1035-CPE is supplied without grounding kit. Proper grounding cable needs to be procured prior to installation.

Power on the Device

After connecting the PoE Injector and the device using straight-through CAT5e cable plug the power cord (Edge 1015 and 1025) or directly the wall mounted PoE (Edge 1035) into a power outlet. There is no ON/OFF switch on the device. To power down the unit, unplug the RJ45 connector from the **OUT / POE** port on the PoE injector.

View LEDs

When the device is powered on, it performs startup diagnostics. When startup is complete, Ethernet LEDs show the device's ethernet state. You can see the LED through the Ethernet connector. The LEDs will not be visible once the Ethernet connector is weatherproofed.

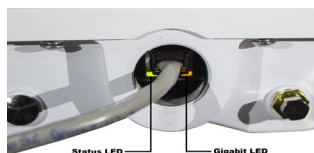


Figure 9: Ethernet LED

LED State	Off	On
Status LED	Not Applicable	Blink when Ethernet link is passing traffic
Gigabit LED	Ethernet link is established at 100 Mbps	Ethernet link is established at 1 Gbps

Signal LED Behavior

During the first two minutes, after the device is turned on or rebooted, the unit LED indicators provide the following information:

LED State	Off	On
RSSI_LED-1 (Lower)	Power is OFF	Power is ON
RSSI_LED-2	Wireless 1 (5 GHz) is OFF	Wireless 1 (5 GHz) is ON
RSSI_LED-3	NA	NA
RSSI_LED-4	Flash is corrupted (requires RMA)	Flash is OK
RSSI_LED-5 (Higher)	Ethernet is DOWN	Ethernet is UP

In RSSI Display mode, by default all the 5 LEDs will blink for an interval of 1 second to indicate the device is UP.



Figure 10: RSSI Display

IMPORTANT: If only the 5th RSSI LED glows, it indicates a system error. In this case, please contact Proxim's customer support team.

Initialize the Device

You can configure the IP address of the device by using BlueConnect application (Edge MP-1015-BS3 and MP-1025-BS3 only), HTTP, SNMP, CLI or Proxim's ScanTool.

For remote management of a device, refer the procedure given in the Device Management Guide at <http://support.proxim.com>.

The following are the default access values of the device:

- **Default IP address:** 169.254.128.132
- **Subnet Mask:** 255.255.255.0
- **Gateway:** 169.254.128.132
- **Username:** admin
- **Password:** public
- **SNMP Read Write Community String:** public
- **Bluetooth Key:** 123456

Download Software and Documentation

To download the Software and Documentation, please visit the Proxim support site at <http://support.proxim.com>. Once you log on, select the product category **Edge™ 10x5 Series** from **Product Downloads Page** and links to the latest software, SNMP MIB file and documentation will be available for download from the **Edge™ 10x5 series download and documentation page**.

Note: You need Acrobat Reader to view the PDF documents.

Technical Support

- Proxim Customer Support Web site is available 7x24x365 at <http://support.proxim.com>
- **Telephone Support:**
 - **US and Canada:** +1-408-383-7700; +1-866-674-6626
 - **International:** +1-408-383-7700
- **Business Hours:** Tier 1 support: 24x7 live response.
Tier 3 support: 8 a.m. to 5 p.m. M-F PST (UTC/GMT -7 hrs).

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