RIVI®

EV35 Access Point Quick Setup Guide

This Quick Setup Guide provides step-by-step instructions on how to field-install the EV35 access point (AP). For detailed information on planning the installation, performing a site survey, and operating the EV35.

WARNING! Only trained and qualified personnel should be allowed to install, replace, or service this equipment.

WARNING! Installation of this equipment must comply with local and national electrical codes.

CAUTION! Form a 80-mm to 130-mm (3-in. to 5-in.) drip loop in any cable that is attached to the AP or the building. This will prevent water from running along the cable and entering the AP or the building where the cable terminates.

CAUTION! Be sure that grounding is available and that it meets local and national electrical codes. For additional lightning protection, use lightning rods and lightning arrestors.

CAUTION! Make sure that proper lightning surge protection precautions are taken according to local electrical code.

| **CAUTION!** RIVI strongly recommends that you wear eye protection before mounting the EV35. |
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Required Hardware and Tools

- No. 2 Phillips screwdriver
- Small flat-blade screwdriver
- Wide flat-blade screwdriver
- Torque wrench or torque screwdriver with sockets
- Long-nose pliers
- Electrical wire stripping and terminal crimping pliers
- Pipe or pole, or a sturdy flat surface
- Electric drill with drill bits and customer-supplied wall anchors, flat washers, and hex nuts for flat-surface mount

Package Contents

A complete EV35 field installation package includes all of the following items:

- EV35 Access Point
- M25 data cable gland
- Ground wire with lug
- Pole/Wall Mount Bracket Kit
- Two steel pipe clamps
- Declaration of Conformity/Regulatory Statement

FIGURE 1 EV35 Package Contents
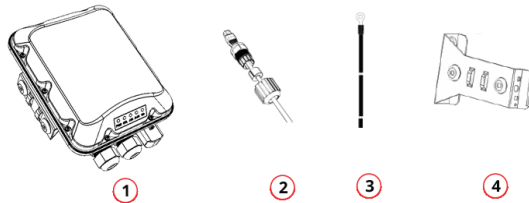
1. EV35 Access Point
2. M25 data cable gland
3. Ground wire with lug
4. Pole/Wall Mount Bracket Kit

Unleashed Network Configuration

Setup Using the Unleashed Mobile App

To perform setup using the Unleashed Mobile App, download the iOS or Android app from the app store.

Scan here for IOS app   Scan here for Android app

1. As soon as the Unleashed AP is powered on and connected to the local network, it boots up and begins broadcasting a temporary unencrypted WLAN named "Configure.Me-[xxxxxx]" from both radios.
2. Using your client's Wi-Fi connection settings, select and associate to the "Configure.Me-[xxxxxx]" WLAN.

3. Launch the app, and follow the on-screen instructions to configure your Unleashed network(s).

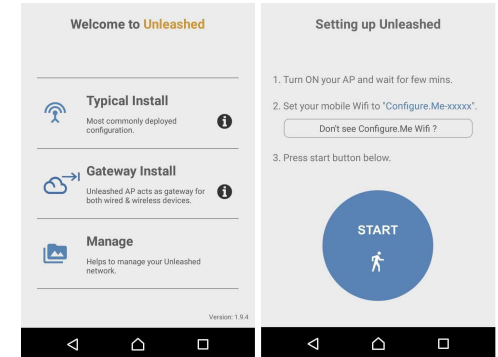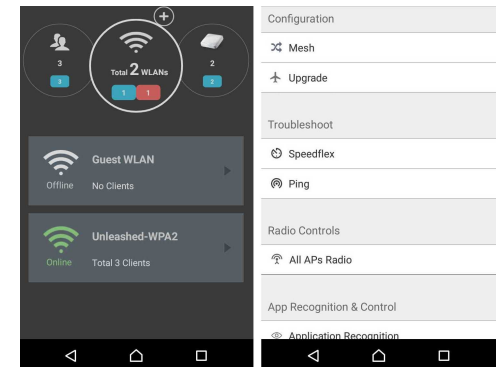**FIGURE 2** Unleashed Mobile App for iOS and Android

FIGURE 3 Configuring Unleashed from the Mobile App

Setup Using a Web Browser

1. As soon as the Unleashed AP is powered on and connected to the local network, it boots up and begins broadcasting a temporary unencrypted WLAN named "Configure.Me-[xxxxxx]" from both radios.
2. Using your client's Wi-Fi connection settings, select and associate to the "Configure.Me-[xxxxxx]" WLAN.
3. Launch a web browser and enter the following into the browser's URL bar: *unleashed.rivinetworks.com*, and press **Enter**.
4. You will be redirected to the Setup Wizard. Complete the steps in the Setup Wizard and click **Finish**.

FIGURE 4 Complete the Setup Wizard to set up your Unleashed network
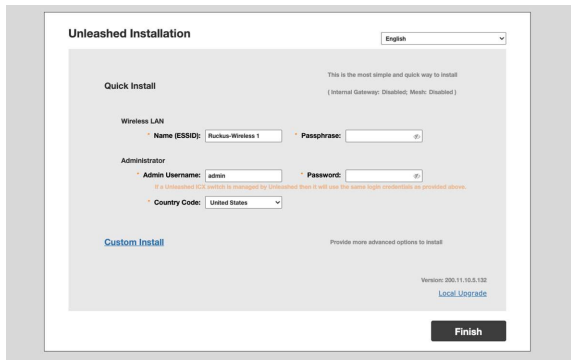
5. Once the Setup Wizard is finished, a "Configuring system settings and rebooting" progress screen appears. Wait until the process is complete.
6. Connect to the WLAN that you configured in the Setup Wizard, and click OK to reconnect. You will be redirected to the Unleashed login screen.
7. Enter your Admin Name and Password to login.

FIGURE 5 The Login page

8. Upon successful login you will be presented with the Unleashed Dashboard, which displays an overview of your Unleashed network.
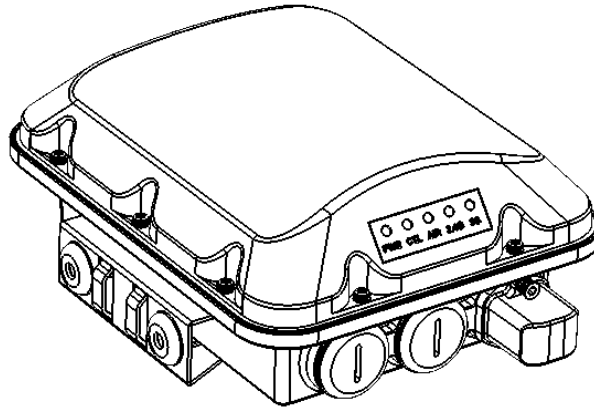
Mounting Instructions

Connecting and Sealing the RJ-45 Cables

Connect and seal the RJ-45 cables using the M25 data cable glands.

> **WARNING!** Do not use any PoE injector not tested and approved by RIVI to power the EV35 Access Point.
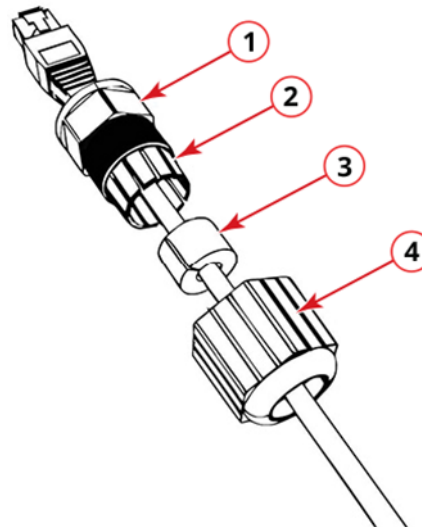
FIGURE 6 EV35 LEDs and Ports

1. Feed the end of the cable through the sealing nut, rubber O-ring, clamping ring assembly, and cable gland base, as shown in Figure 7.

> **NOTE:** Do not seat the clamping ring and rubber O-ring into the gland body until the gland body has been torqued to specifications.

FIGURE 7 RJ-45 Cable and Gland Assembly

1. Cable gland base	3. Rubber O-ring
2. Clamping ring	4. Sealing nut

2. Use a wide flat-blade screwdriver to remove the required (PoE IN) blanking cap from the AP.

3. Connect the cable to the Ethernet port on the AP.
4. Tighten the cable gland base into the AP chassis to 7 N.m or 62 in-lbs.
5. Wrap the clamping ring assembly around the rubber O-ring. Make sure that the clamping ring assembly fully encloses the rubber O-ring.
6. Seat the clamping ring assembly and rubber O-ring in the cable gland base.
7. Hand-tighten the sealing nut.

Attaching the Mounting Bracket to a Flat Surface

1. The AP mounting bracket attaches to the AP using a captive screw. Use a medium flat-blade or No. 2 Phillips screwdriver to loosen the captive screw, as shown in Figure 8, and pull up on the end of the bracket to remove the bracket from the AP, as shown in Figure 8.
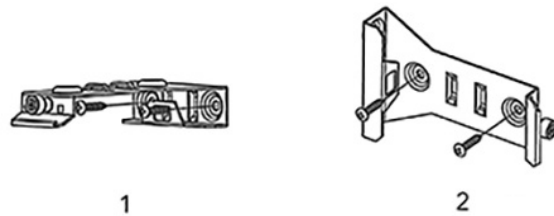
FIGURE 8 Removing the Mounting Bracket
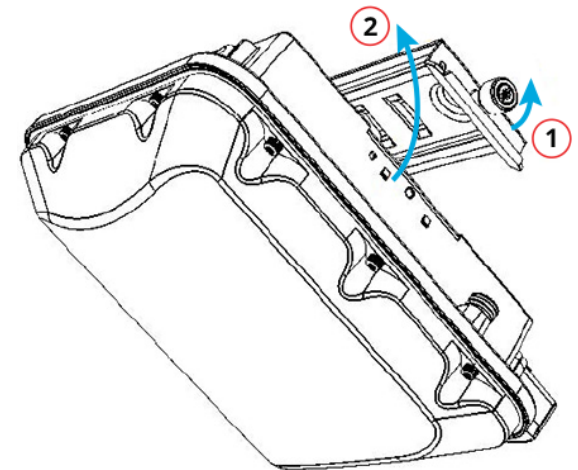
1. Loosen the captive screw	2. Pull up on the end of the bracket

2. Using either of the two options shown in Figure 9, hold the mounting bracket at the location on the mounting surface where you want to mount the AP. Use the holes on the mounting bracket as a template to mark the locations of the mounting holes.

> **NOTE:** The mounting bracket can be mounted to a vertical or horizontal surface to support the AP in the required orientation.

FIGURE 9 Mounting Bracket on a Flat Surface

1. Horizontal mounting
2. Vertical mounting

3. Remove the mounting bracket from the mounting surface.
4. Drill holes required for the customer-supplied mounting
5. hardware. Attach the mounting bracket to the flat surface using the mounting hardware.
6. Using the mounting hardware instructions, tighten the hardware to secure the mounting bracket.
7. Continue with Mounting the AP on page 3.

Attaching the Mounting Bracket to a Pole

1. The AP mounting bracket attaches to the AP using a captive screw. Loosen the screw and pull up on the end of the bracket to remove the bracket from the AP, as shown in Figure 8 on page 2.
2. Insert the open end of one steel clamp into two of the slots on the mounting bracket.

   NOTE: The mounting bracket can be mounted to a vertical or horizontal pole to support the AP in the required orientation.

3. Using either of the two options shown in Figure 10, use the clamps to attach the mounting bracket to the pole. Tighten the clamps to 3 N.m or 27 in-lbs, or per manufacturer's specifications if the factory-supplied clamps are not used.
4. If necessary, daisy-chain the other steel clamps to accommodate larger poles.

FIGURE 10 Mounting Bracket on a Pole

1. Horizontal pole mounting
2. Vertical pole mounting

5. Continue with Mounting the AP.

Mounting the AP

1. Snap the AP back onto the mounting bracket, as shown in Figure 11, and use a medium flat-blade or No. 2 Phillips screwdriver to tighten the captive screw to 1.1 N.m or 10 in-lbs to secure the bracket to the AP, as shown in Figure 11.

FIGURE 11 Attaching the Mounting Bracket to the AP
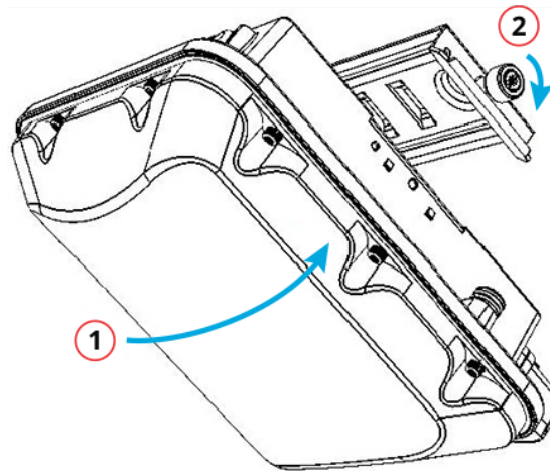
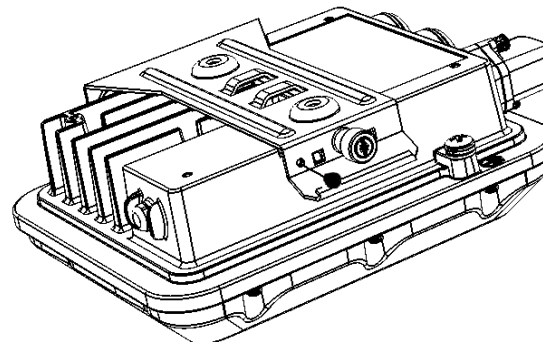
1. Snap the AP to the mounting bracket
2. Tighten the captive screw

2. Optional Step: If you also need to lock the mounting bracket to the AP, then use an appropriately sized screwdriver to screw the customer-supplied locking stainless steel 6-mm M3 panhead security screw through the mounting bracket and into the AP chassis.

   CAUTION! Make sure that the customer-supplied locking stainless steel M3 panhead security screw is no longer than 6mm. If the security screw is longer than 6mm, it can damage the AP chassis.

FIGURE 12 Locking the Mounting Bracket to the AP

You have completed mounting the AP to the mounting bracket.

Powering the AP with DC Power

The AP can accommodate two sources of power: PoE (48V) power and 12V DC.

The AP can draw power from the Ethernet input as a Class 4 device, providing a maximum of 18 W to the system. Alternately, power can be supplied through a customer-provided 12V DC power supply (12V DC preferred, 7-20V DC acceptable) that will connect to a two-pin terminal block. The terminal block is accessible through a water-tight gland on one end of the unit. The terminal block connection has surge and polarity protection to protect against inserting the wrong polarity leads into the terminal block.

NOTE: If both the PoE and DC ports are used, separate cable glands must be used for each port. Additional cable gland (Part Number 902-0183-0000) can be be purchased.

NOTE: When both the 12V DC and the 48V PoE power are active, the AP will prioritize the 12V DC power.

CAUTION! Ensure that the DC power source does not exceed 20V DC.

1. Install the DC power supply as described in the DC power supply accessory installation guide.
2. Connect the power cord to a DC power source.
3. Verify that the PWR LED is a steady green.

Earth Grounding the AP

CAUTION! Make sure that earth grounding is available and that it meets local and national electrical codes. For additional lightning protection, use lightning rods and lightning arrestors.

NOTE: The color coding of ground wires varies by region. Before completing this step, check your local wiring standards for guidance.

Using the factory-supplied ground wire and ground screw and washer set, connect a good earth ground to the AP chassis ground point.

CAUTION! The EV35 includes one 9-mm stainless steel M6x1 earth ground screw with split lock and flat washers. Make sure that any replacement screw is no longer than 9 mm. If a screw is longer than 9 mm, it can damage the AP chassis.

FIGURE 13 Connecting a Good Earth Ground to the AP
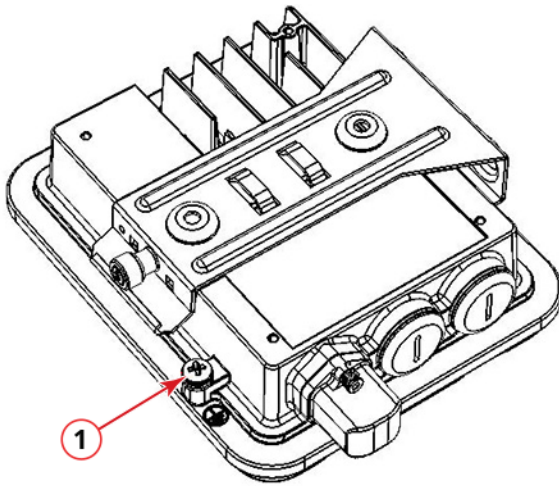

1. Earth ground screw

Installing a USB Dongle

To install a USB dongle (for example, an IoT radio device such as BLE, 802.15.4, Z-wave, or similar), remove the two 3-mm hex screws, remove the cap, and insert the dongle into the USB port.

Once installed, replace the cap and the hex screws, and tighten the screws to 0.79 N.m or 7 in-lbs.

> **NOTE:** If required, a larger USB dongle cap can be purchased separately. The maximum dimensions of the USB dongle that can be inserted (with the large USB dongle cap, part # 902-0127-000) are 6 cm x 2 cm x 1.1 cm. Max Power: 450mW (SiLabs EM3578 max current draw at +20 dBm is 80mA over a 3.3V rail).

FIGURE 14 Installing a USB Dongle
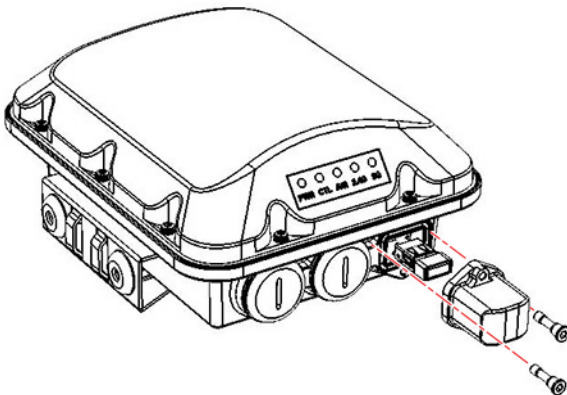
Troubleshooting

> **CAUTION!** If required, you can reset the AP to its factory default settings by pressing the reset button located inside the PoE IN port. Use the tip of a pen or a 3-mm flat-blade screwdriver to press the reset button. Press and hold the reset button for 4 seconds or longer to restore to factory defaults. DO NOT RESET THE AP TO FACTORY DEFAULT SETTINGS UNLESS SO INSTRUCTED. (Doing this resets the AP IP address to 192.168.0.1.)

> **NOTE:** After a reset, you can access the internal AP web interface using https://192.168.0.1. Your device must use any other address from 192.168.0.2 through 192.168.0.254, with subnet mask 255.255.255.0. The username is super, and the password is sp-admin. Refer to the Outdoor Access Point User Guide for information on configuring and operating the AP. This document is available at https://support.rivinetworks.com.