T610 Access Point
Quick Setup Guide

⚠ **CAUTION!** The minimum software revision for the T610 is ZoneDirector (ZD) 9.13.1 or later, or SmartZone (SZ) 3.4 or later, or standalone AP firmware 104.0 or later. **DO NOT CONNECT THE T610 TO A RUCKUS WIRELESS ZONEDIRECTOR RUNNING 9.13 OR EARLIER.**

This *Quick Setup Guide* provides step-by-step instructions on how to field-install the Ruckus Wireless T610 access point (AP).

For detailed information on planning the installation, performing a site survey, and operating the T610, refer to the *ZoneFlex Outdoor Access Point User Guide*, available at https://support.ruckuswireless.com.

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: *Make sure that you form a 80mm - 130mm (3"-5") 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.*

WARNING: *Ruckus Wireless strongly recommends that you wear eye protection before mounting the T610.*

THIS GUIDE IN OTHER LANGUAGES

请从以下网站获得该指南的简体中文版 https://support.ruckuswireless.com.

Vous trouverez la version française de ce guide à l'adresse suivante https://support.ruckuswireless.com.

このガイドの日本語版は https://support.ruckuswireless.com でご覧ください。

이 가이드의 한국어 버전은 웹 사이트 (https://support.ruckuswireless.com) 에서 확인하시기 바랍니다 .

Veja a versão em português (Brasil) deste guia em https://support.ruckuswireless.com.

Puede ver la versión en español (América Latina) de esta guía en https://support.ruckuswireless.com.

BEFORE YOU BEGIN

Before deploying your Ruckus Wireless T610, verify that all items listed in Package Contents are included in the package. If any item is damaged or missing, notify your authorized Ruckus Wireless sales representative. Also, make sure that you have the required hardware and tools.
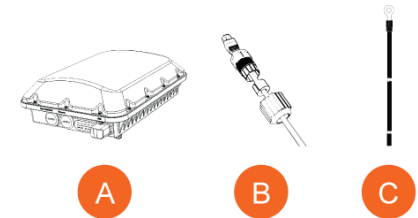
REQUIRED HARDWARE AND TOOLS

- Customer-supplied outdoor-rated three-wire (1-2mm^2 or 14-18AWG) AC cable
- 1/2" (13mm) flat-blade screwdriver or equivalent
- No. 2 Phillips screwdriver
- Small 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
- Four factory-supplied 1/2" (12.7mm) wide stainless steel adjustable clamps, 2.5" (63.5mm) diameter, for main mounting bracket on smaller poles
- Ruler

PACKAGE CONTENTS

A complete T610 field installation package includes all of the items listed below (see Figure 1for illustrations):

- T610 Access Point (A)
- Two M25 data cable glands (B)
- Ground wire with lug (C)
- Service Level Agreement/Limited Warranty Statement
- Declaration of Conformity
- Regulatory Statement
- Ruckus Wireless AP Getting Started Guide
- This Quick Setup Guide

Figure 1:   Package Contents

NOTE: *The outdoor AP Mounting Bracket and security cable are optional accessories that must be purchased separately.*
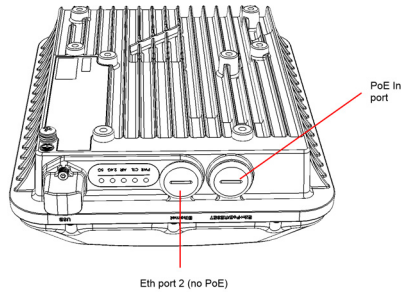
STEP 1: CONNECTING AND SEALING THE RJ-45 CABLES

Connect and seal the RJ-45 cable(s) using the M25 data cable gland as shown in Figure 3.

WARNING: *Do not use any PoE injector not tested and approved by Ruckus Wireless to power the T610 Access Point.*
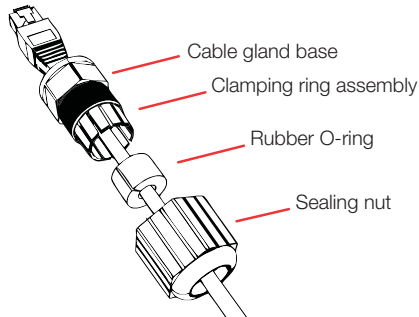
WARNING: *Do NOT plug PoE in power into the non-PoE Port (see Figure 2).*

Figure 2: T610 bottom view

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 3.
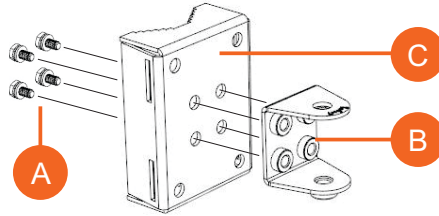
Figure 3: RJ-45 cable and cable gland assembly

2. Use a wide flat-blade screwdriver to remove the required (PoE IN) blanking cap from the T610.
3. Connect the cable to the Ethernet port on the T610.
4. Tighten the cable gland base into the T610 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.

STEP 2: ATTACHING THE U-JOINT BRACKET TO THE MOUNTING BRACKET

NOTE: *The following mounting instructions require purchase of optional accessories that are not included in the standard T610 package. The outdoor AP Mounting Bracket and safety cable are optional accessories that must be purchased separately.*

1. Position the U-joint bracket on the mounting bracket.

Figure 4: U-joint bracket attached horizontally to the mounting bracket
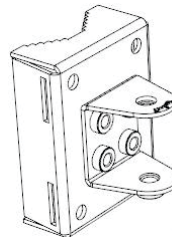

NOTE: *Mount the U-joint bracket in any direction on the mounting bracket, preferably to allow AP azimuth adjustments. Then the AP bracket allows AP elevation adjustments.*

2. Use four 1/4-28 bolt and washer sets (A) to mount the U-joint bracket (B) to the mounting bracket (C). Tighten the bolts to 9.5 N.m (7 ft-lbs).
3. Continue with Step 3a: Attaching the Mounting Bracket to a Flat Surface or Step 3b: Attaching the Mounting Bracket to a Metal Pole.

STEP 3A: ATTACHING THE MOUNTING BRACKET TO A FLAT SURFACE

1. Place the mounting bracket at the location on the flat 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.

Figure 5: Mounting bracket flat surface holes

2. Remove the mounting bracket from the flat surface.
3. Drill holes required for the mounting hardware.

NOTE: *The hardware required for mounting to a wall are not included in the mounting kit.*

4. Attach the mounting bracket to the flat surface using the mounting hardware.

5. Using the mounting hardware instructions, tighten the hardware to secure the mounting bracket.
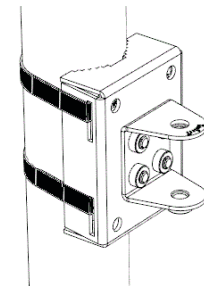6. Continue with Step 4: Mounting the Linkage Bracket to the U-Joint Bracket.

STEP 3B: ATTACHING THE MOUNTING BRACKET TO A METAL POLE

1. Insert the open end of one steel clamp into the upper two slots on the mounting bracket.
2. Take the other steel clamp and insert it into the lower two slots on the mounting bracket.

NOTE: *The clamps can be daisy-chained together to accommodate larger poles.*

3. 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.

Figure 6: Attaching the mounting bracket to a vertical pole

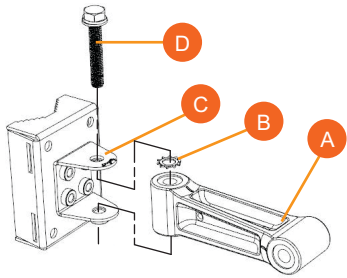4. Continue with Step 4: Mounting the Linkage Bracket to the U-Joint Bracket.

STEP 4: MOUNTING THE LINKAGE BRACKET TO THE U-JOINT BRACKET

The linkage bracket attaches to the U-joint bracket using an M8 bolt and washer set. The linkage bracket is symmetrical, and either end can be attached to the U-joint bracket.

NOTE: *Make sure that linkage bracket is installed with its serrated external-tooth lock washer on the <u>inside</u> of the U-joint bracket flanges. This ensures that the azimuth adjustment does not change.*

1. Loosely assemble the linkage bracket (A), the U-joint bracket (C), one serrated external-tooth lock washer (B), and one M8 bolt and washer set (D).

Figure 7:   Attaching the linkage bracket to the U-joint bracket

2   Set the azimuth required by the AP.

3   Tighten the M8 bolt to 13.6 N-m (10 ft-lbs).

4   Continue with Step 5: Attach the AP bracket to the linkage bracket.

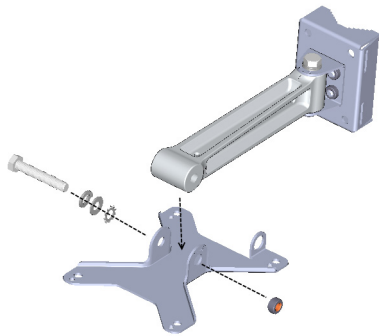## STEP 5: ATTACH THE AP BRACKET TO THE LINKAGE BRACKET

Attach the AP bracket to the linkage bracket using the included bolt, nut, lock washer, flat washer, serrated external-tooth washer shown in Figure 8.

The AP bracket attaches to the linkage bracket using an M8 bolt and washer set. The linkage bracket is symmetrical, and either end can be attached to the AP bracket.

NOTE: *Make sure that linkage bracket is installed with its serrated external-tooth lock washer on the <u>inside</u> of the AP bracket flanges. This ensures that the elevation adjustment does not change.*

1   As described in Step 4: Mounting the Linkage Bracket to the U-Joint Bracket, loosely assemble the AP bracket (shown in Figure 9), the linkage bracket (A in Figure 7), the second serrated external-tooth lock washer (B in Figure 7), and the second M8 bolt and washer set (D in Figure 7).
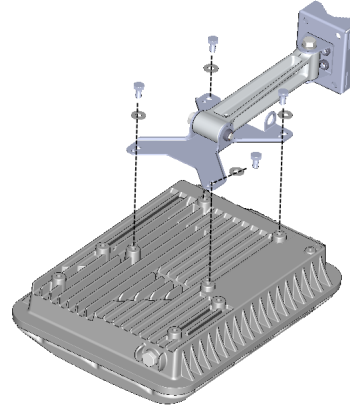
Figure 8:   Attach the linkage bracket to the AP bracket

STEP 6: ATTACHING THE AP BRACKET TO THE ACCESS POINT

1   Place the AP bracket onto the back side of the AP so that the four larger screw holes on the bracket align with the four screw holes on the AP. Make sure that the end of the AP bracket with the hoisting loop is on the same side as the AP **PoE IN** port.

Figure 9:   Attaching the AP bracket to the AP

2   Use four 0.5-inch x 0.250-28 hex bolts with split lock and flat washer sets to mount the AP bracket to the AP. Tighten the bolts to 2.5-3.0 N.m or 22-27 in-lbs.

CAUTION: *Make sure that the screws are no longer than 0.5 inch. If a screw is longer than 0.5 inch, it can damage the AP chassis.*

3   If required, suspend the AP by attaching a carabiner to the hoisting loop on the AP bracket.

NOTE: *This kit may include extra screws, nuts and washers. You may use the extras wherever required.*

4   Continue with Step 7: Set the Elevation and Tighten Elevation Bolt.

STEP 7: SET THE ELEVATION AND TIGHTEN ELEVATION BOLT

1   Set the elevation required by the AP.

2   Tighten the M8 bolt to 13.6 N-m (10 ft-lbs).

STEP 8: 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.*
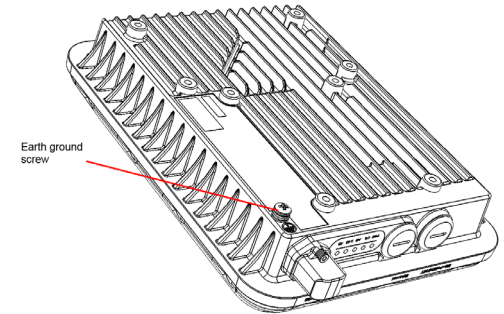
NOTE: *The color coding of ground wires varies by region. Before completing this step, check your local wiring standards for guidance.*

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

ground point (Figure 10).

CAUTION: *The T610 AP includes one 12mm stainless steel M6x1 earth ground screw with split lock and flat washers. Make sure that any replacement screw is no longer than 12mm. If a screw is longer than 12mm, it can damage the AP chassis.*

Figure 10:   Connect good earth ground to AP here

STEP 9: INSTALLING THE SECURITY CABLE

NOTE: *The security cable is an optional accessory that must be purchased separately.*

1   Thread the security cable through the mounting bracket (A) and through the eye on the cable itself (B), as shown in Figure 11.

2   Attach the safety cable to the AP (C) in Figure 11.
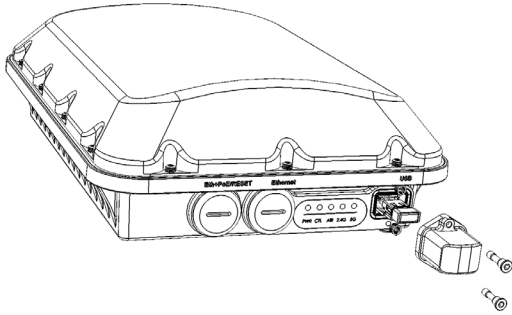
Figure 11:   Attaching the security cable

Congratulations! You have mounted your T610 access point.

Installing a USB Dongle

To install a USB dongle, which could be an IoT radio like BLE, 802.15.4, Z-wave or the like, remove the two 3mm hex screws, remove the cap, and insert the dongle into the USB port. Once installed, replace the cap and the hex screws, and torque the screws to 7 in-lbs.

Figure 12:   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. DO NOT DO THIS 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 ZoneFlex Outdoor Access Point User Guide for information on configuring and operating the AP. This document is available at* https://support.ruckuswireless.com*.*

NOTE: *After an AP is removed from its mounting, it may drip some water from the channel surrounding the radome. As long as the AP has been operating normally, this incidental water collection and dripping is normal, and is not service-affecting.*