T710 Access Point
Quick Setup Guide

CAUTION! The minimum software revision for the T710 is ZoneFlex (ZF) 9.13 or later, or SmartZone (SZ) 3.4 or later.
DO NOT CONNECT THE T710 TO A RUCKUS WIRELESS ZONEDIRECTOR RUNNING 9.12.2 OR EARLIER.

This *Mounting Guide* provides step-by-step instructions on how to field-install the Ruckus Wireless T710 access point (AP).

For detailed information on planning the installation, performing a site survey, and operating the T710, 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 T710.*

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 T710, 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

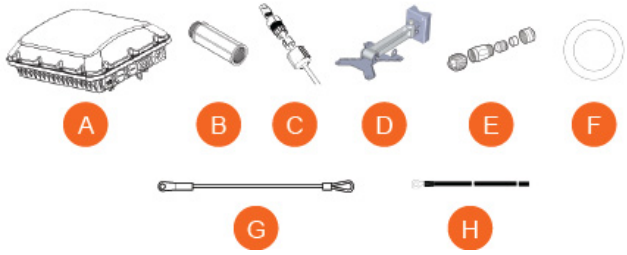
- Customer-supplied outdoor-rated three-wire (1-2mm^2 or 14-18AWG) AC cable
- 1/2" (13mm) flat-blade screwdriver or equivalent
- No. 2 Phillips screwdriver
- Small flat-blade screwdriver
- Torque wrench or torque screwdriver with sockets
- Long-nose pliers
- Electrical wire stripping and terminal crimping 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 T710 field installation package includes all of the items listed below (see Figure 1for illustrations):

- T710 Access Point (A)
- M25 data cable gland extender (B)
- Three M25 data cable glands (C)
- Outdoor AP Mounting Bracket (D)
- AC Power Cable End Connector (E)
- Cable Gland Extender Flat Gasket (F)
- Safety cable kit (G)
- One ground wire with lug (H)
- Service Level Agreement/Limited Warranty Statement
- Regulatory Statement
- *Ruckus Wireless AP Getting Started Guide*
- Declaration of Conformity
- This *Quick Setup Guide*

Figure 1: Package Contents



Step 1: Connecting and Sealing the RJ-45 Cables

The T710 may use zero, or one or two RJ-45 cables, one for Ethernet when configured as a Root AP (RAP), and another when the T710 is supplying PoE out to a peripheral device, such as a small cell or micro cell radio. When the T710 uses RJ-45 cables, connect and seal the cables using the M25 data cable glands as shown in Figure 3.

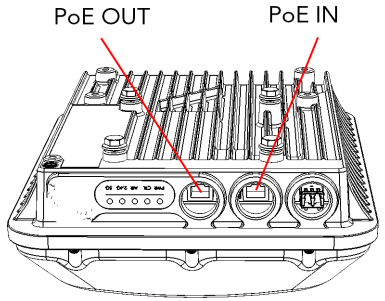
WARNING: *Do not use any PoE injector not tested and approved by Ruckus Wireless to power the T710 Access Point.*

WARNING: *Do not plug PoE IN power into the PoE OUT port. See Figure 2.*

WARNING: *If using PoE OUT, it is MANDATORY to use the custom Ruckus supplied PoE injector (part #902-0180-XX00), or to use AC power.*

WARNING: *If using a PoE switch to supply power to the T710, 30W MUST be reserved for the T710 on the switch. Failure to ensure a 30W supply may result in unpredictable operation of the access point. Additionally, if using a PoE switch, the T710's PoE OUT port cannot be used to power additional devices.*

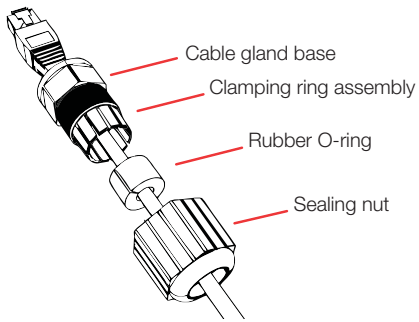
Figure 2: PoE IN and PoE OUT ports



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 3.

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Figure 3: RJ-45 cable and cable gland assembly



2. Use a wide flat-blade screwdriver to remove the required (RESET/ PoE OUT or PoE IN) blanking cap from the T710.
3. Connect the cable to the Ethernet port in the T710.
4. Tighten the cable gland base into the T710 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.

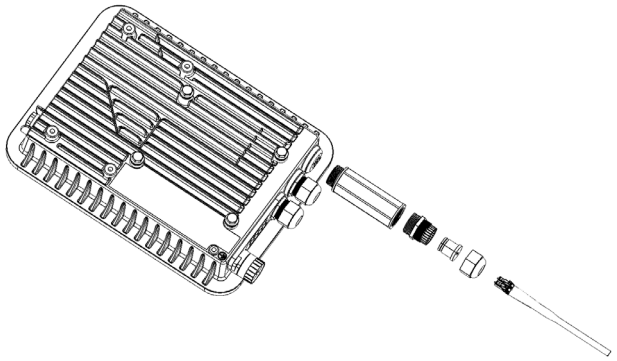
Step 1a: Connecting the SFP Optic Module to the Fiber Port

To connect to fiber backhaul, plug an SFP Optic module into the Fiber port. The SFP module is hot-swappable and can be removed with fingers or simple tools.

NOTE: *Recommended modules specified to work with this system are: Finisar GPON FTGN2117P2TUN, Finisar EPON FTEN2217P1CUN-BC, Finisar 1000BaseLX FTLF1318P3BTL, Xavi XO-3901 GPON ONT.*

NOTE: *The fiber cable must be a single diameter cable, not a zipcord.*

Figure 4: SFP module cable gland assembly

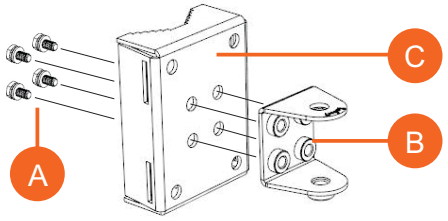


Step 2: Attaching the U-Joint Bracket to the Mounting Bracket

1. Position the U-joint bracket on 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.*

Figure 5: U-joint bracket attached horizontally to the mounting bracket

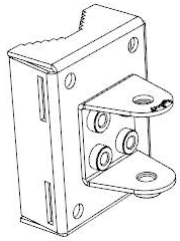


2. Use four 1/4-28 bolt and washer sets (A) to mount the U-joint bracket (B) to the mounting bracket (C). Tighten the bolts to 9.5 N.m (7 ft-lbs).
3. Continue with Step 3a: Attaching the Mounting Bracket to a Flat Surface or Step 3b: Attaching the Mounting Bracket to a Metal Pole.

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 6: 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.

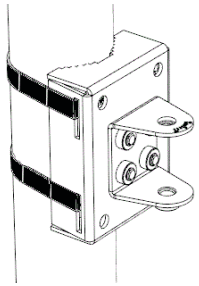
Step 3b: Attaching the Mounting Bracket to a Metal Pole

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 7: Attaching the mounting bracket to a vertical pole



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

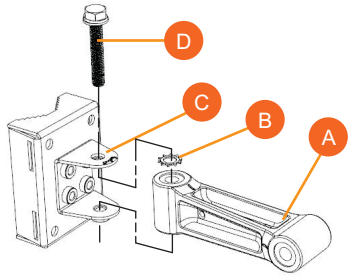
Step 4: Mounting the Linkage Bracket to the U-Joint Bracket

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 inside 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 8: Attaching the linkage bracket to the U-joint bracket



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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

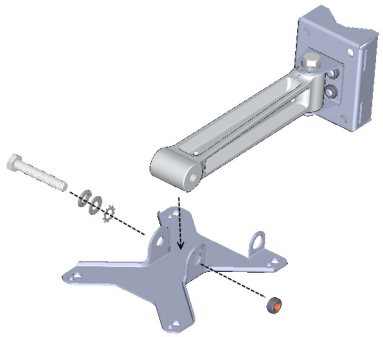
Attach the AP bracket to the linkage bracket using the included bolt, nut, lock washer, flat washer, serrated external-tooth washer shown in Figure 9.

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 inside 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 10), the linkage bracket (A in Figure 8), the second serrated external-tooth lock washer (B in Figure 8), and the second M8 bolt and washer set (D in Figure 8).

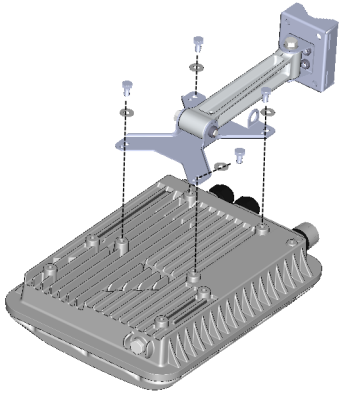
Figure 9: Attach the linkage bracket to the AP bracket



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 10: 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).
3 Continue with Step 8: Powering the AP with AC.

Step 8: Powering the AP with AC

1 Separate the AC cable connector parts by unscrewing the boot from the cable gland and the cable gland from the connector housing.
2 Feed the end of the AC cable through the boot and cable gland.
3 Strip the AC cable as shown.
4 Insert the stripped part of the conductors into the appropriate terminals on the connector housing. The conductors are color-coded and must be connected to the appropriate terminals as shown in Figure 11.

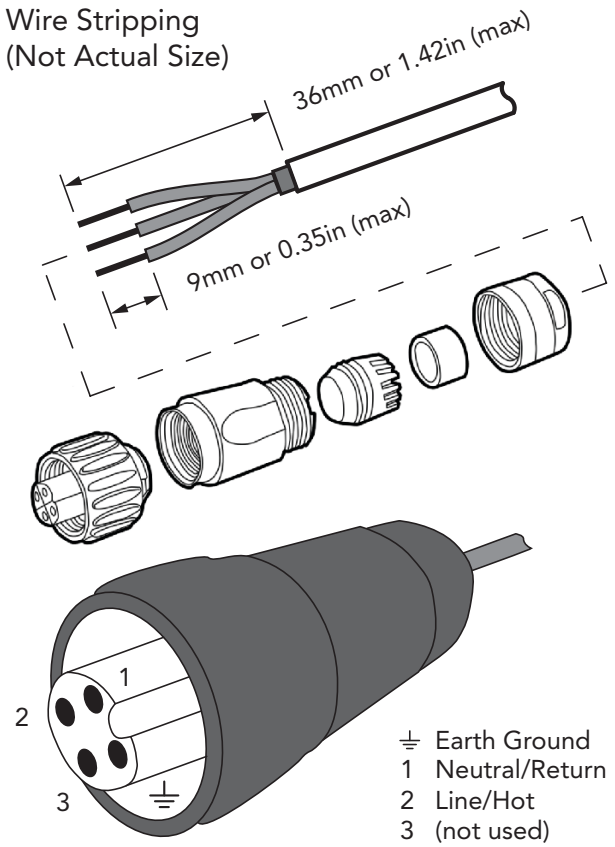
Typical AC wire colors:

- ⏚ (Earth Ground): Green (US), Green/Yellow (EU)
- 1 (Neutral/Return): White or Gray (US), Blue (EU)
- 2 (Line/Hot): Black (US), Brown (EU)
- 3 (not used)

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

5 Using a small screwdriver, tighten the small screws around the connector housing to fix the connector pins into the terminals.
6 Mate the cable gland with the connector housing, and then hand-tighten.

Figure 11: Assembling the AC power connector



Two different-sized grommets are supplied in the AC connector assembly kit. Use the grommet that is appropriate to the diameter of the AC cable that you are using.

7 Mate the boot with the cable gland, and then hand-tighten to seal.
8 Connect the AC cord connector that you have assembled to the AC power socket on the AP.
9 Connect the AC cord to an AC power source.

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Step 9: Earth Grounding the AP

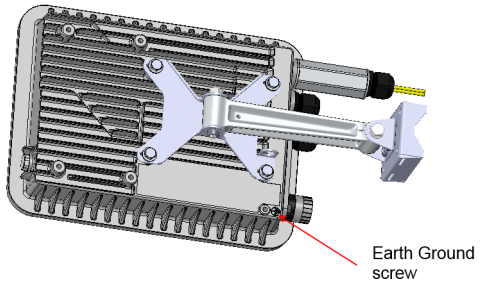
CAUTION: *Make sure that earth grounding is available and that it meets local and national electrical codes. For additional lightning protection, use lightning rods and lightning arrestors.*

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 12).

CAUTION: *The T710 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.*

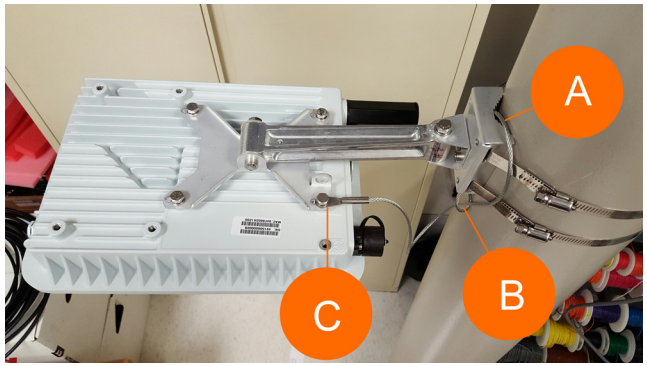
Figure 12: Connect good earth ground to AP here



Step 10: Installing the Security Cable

1. Thread the security cable through the mounting bracket (A) and through the eye on the cable itself (B), as shown in Figure 13.
2. Attach the safety cable to the AP (C) in Figure 13.

Figure 13: Attaching the security cable



Congratulations! You have mounted your T710 access point.

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.*

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