T305e Access Point Quick Setup Guide

This Quick Setup Guide provides step-by-step instructions on how to install the Ruckus Wireless T305e access point (AP). For detailed information on planning the installation, performing a site survey, and operating the T305e, refer to the *Ruckus Wireless 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.

CAUTION! 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! Ruckus strongly recommends that you wear eye protection before mounting the T305e.

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 Ruckus products, please check for the latest software and the release documentation.

- Release Notes and other user documentation are available at http://support.ruckuswireless.com/documents.
- Software upgrades are available at http://support.ruckuswireless.com/software.
- Open source information is available at http://opensource.ruckuswireless.com.
- Software license and limited warranty information are available at http://support.ruckuswireless.com/warranty.

NOTE: The minimum software revision for the T305e is SmartZone (SZ) 5.1.1 New AP Model.

Required Hardware and Tools

- No. 2 Phillips screwdriver
- Medium flat-blade screwdriver
- Wide flat-blade screwdriver
- Torque wrench or torque screwdriver with sockets
- 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 T305e field installation package includes all of the following items:

- T305e Access Point
- One ground wire with lug
- Two steel pipe clamps
- Service Level Agreement/Limited Warranty Statement
- Declaration of Conformity
- AP Cloud Management Insert
- Regulatory Statement
- Ruckus Wireless AP Getting Started Guide
- This Quick Setup Guide

Mounting Instructions

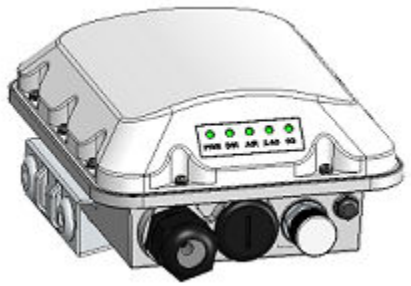
Connecting and Sealing the RJ-45 Cables

The T305e has one PoE port and one port for Console.

WARNING! Do not plug in a PoE cable in the console port.

NOTE: The cable gland for the PoE port comes installed at the factory. Remove the rubber cord from the cable gland and connect and seal the RJ-45 cables using the M25 data cable gland.

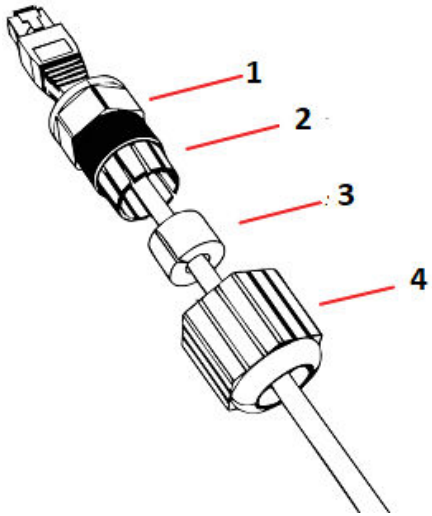
FIGURE 1 T305e Access Point



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 2.

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

FIGURE 2 RJ-45 Cable and Cable Gland Assembly



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

2. Connect the cable to the PoE port on the AP.
3. Tighten the cable gland base to 7 N.m or 62 in-lbs.
4. Wrap the clamping ring assembly around the rubber O-ring. Make sure that the clamping ring assembly fully encloses the rubber O-ring.
5. Seat the clamping ring assembly and rubber O-ring in the cable gland base.

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6. Hand-tighten the sealing nut.

Connecting and Sealing the Console Port

The RJ-45 Console port is available to the user for debugging the AP.

1. The port of the console connector is covered with a blanking cap. To access the console port, remove the blanking cap, as shown in Figure 3, with a wide flat-blade screwdriver.

   NOTE: The console port should never be left uncovered. In the absence of a cable, it must be covered with a blanking cap.

2. Connect the console cable to the console connector.
3. Once the console work is completed, remove the console cable, reinstall the blanking cap, and tighten to 0.6779 N.m or 6 in-lbs.

   If the console cable is used for a prolonged period or permanently installed, a cable gland must be used.

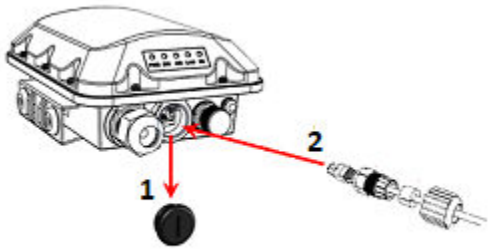
   NOTE: To place an order for the M25 cable gland, refer to the T305 SERIES Outdoor 802.11ac Wave 2 2x2:2 Wi-Fi Outdoor Access Point Datasheet.

Using a Cable Gland with the Console Port or Cable

1. Feed the end of the cable through the sealing nut, rubber O-ring, clamping ring assembly, and cable gland base, as shown in the Figure 2.

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

FIGURE 3 Connecting the Cable Gland to the Console Port



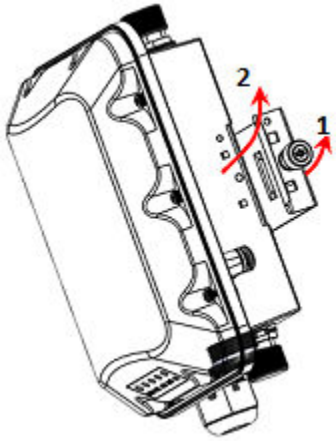
1 - Blanking cap
2 - RJ-45 cable

2. Connect the cable to the console port on the AP, as shown in Figure 3.
3. Tighten the cable gland base into the AP chassis to 7 N.m or 62 in-lbs.
4. Wrap the clamping ring assembly around the rubber O-ring. Make sure that the clamping ring assembly fully encloses the rubber O-ring.
5. Seat the clamping ring assembly and rubber O-ring in the cable gland base.
6. 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 4, and pull up on the end of the bracket to remove the bracket from the AP, as shown in Figure 4.

FIGURE 4 Removing the Mounting Bracket



1 - Captive screw
2 - Mounting bracket

2. Using either of the two options shown in Figure 5, 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 5 Mounting Bracket on a Flat Surface



3. Remove the mounting bracket from the mounting surface.
4. Drill holes required for the customer-supplied mounting hardware.
5. 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 2.

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 4.
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, 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 6 Mounting Bracket on a Pole

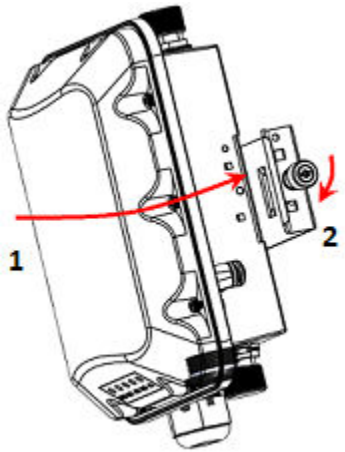


5. Continue with Mounting the AP on page 2.

Mounting the AP

1. Snap the AP back onto the mounting bracket, as shown in Figure 7, 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 7.

FIGURE 7 Attaching the Mounting Bracket to the AP



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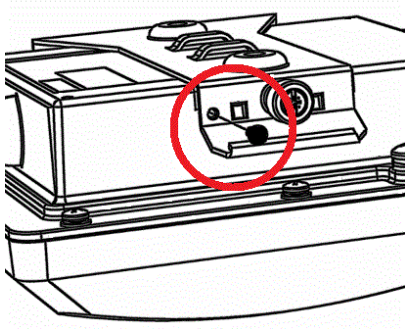
1 - Mounting bracket

2 - Captive screw

2. Optional Step: For additional security, install a customer-supplied security screw as shown in Figure 8.The Security screw should be an M3 6-mm panhead screw.

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

FIGURE 8 Locking the Mounting Bracket to the AP



Earth Grounding the AP

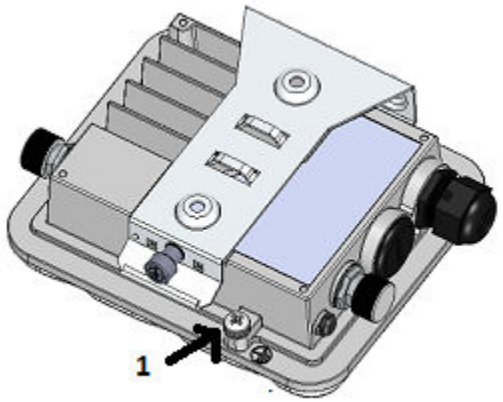
Using the factory-supplied ground wire and ground screw and washer set, connect a good earth ground to the AP chassis ground point.

CAUTION! Be sure that grounding is available and 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.

CAUTION! The T305e AP 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 9 Connecting a Good Earth Ground to the AP



1 - AP Chassis Ground Point

Mounting and Connecting 5 GHZ and 2.5 GHZ External Antennas

1. Disconnect the AP from all power sources.
2. Unscrew the metal caps that protect the antenna connectors. Place the metal caps in a safe place, for later use.
3. Connect external antennas to the N-type female antenna connectors on the AP. Use a torque wrench to tighten the connectors to 1.58 N.m (14 in-lb).

NOTE: When connecting a vertical and horizontal antenna to the AP, the vertical antenna must connect to ANT2.

4. If the antennas come with RF coaxial cables (for example, a patch antenna), physically mount the antennas at your desired location, preferably on the same mounting structure as the AP.

NOTE: Mount the external antennas at least 20 cm (7.9 in.) away from each other and other antennas.

5. Apply weatherproofing tape to the antenna connectors as described in Connector Sealing Instructions on page 3.

CAUTION! If you are not connecting external antennas to the AP, make sure that the metal caps remain installed and securely fastened to protect the interfaces from elements, such as water and dirt.

Connector Sealing Instructions

Step 1: Cleaning the Connectors and Your Hands

1. Clean all traces of dust, grease, and oil from your hands
2. Clean off any traces of dust, grease, and oil from the N-type bulkhead connector external threads
3. Make sure that the connectors are dry before continuing.

Step 2: Connecting the Cable with the Connector

1. If the AP is powered on, disconnect the AP from the power source.

CAUTION! Make sure that you disconnect the AP from the power source to avoid electrocution or equipment damage.

FIGURE 10 Connecting the Cable with the Connector



2. Unscrew the metal cap that protects the antenna connector. Place the metal cap in a safe place, in case you need it later.
3. Connect the cable to the connector. Use a torque wrench to tighten the cable coupling nut to 1.58 N.m (14 in-lb). If you do not have a torque wrench or if you are tightening a knurled coupling nut (as shown), hand-tighten the cable coupling nut until the internal gaskets are compressed, but do not overtighten.

Step 3: Wrapping the Exposed Connector Threads

1. Depending on the width of the sealing tape, either fold the tape in half or cut it to fit the exposed connector threads
2. Stretch the tape per the manufacturer's instructions
3. Working clockwise, gently stretch the sealing tape as you install it so that it covers the connector thread between the cable coupling nut and the base of the connector.

   Make sure that the final wrap is approximately flush with the cable coupling nut, and then cut the sealing tape.

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FIGURE 11 Wrapping the Exposed Connector Threads



NOTE: Cut, do not tear, the sealing tape. If the sealing tape is overstretched, it loses its self-amalgamating properties.

Step 4: Wrapping the Internal Layer of the Electrical Tape

1. Using scissors, cut the end of the electrical tape at an angle. This will allow the electrical tape to be applied with minimal bulk.

FIGURE 12 Cutting the End of the Electrical Tape



2. Wrap the electrical tape clockwise from the beginning of the cable coupling nut to just past the heat shrink tube on the cable. Do not cover the sealing tape installed in Step 3: Wrapping the Exposed Connector Threads on page 3.

FIGURE 13 Wrapping the Electrical Tape



Step 5: Wrapping the Main Sealing Tape

1. Using scissors, cut the end of the sealing tape at an angle. This will allow the sealing tape to be applied with minimal bulk.

FIGURE 14 Cutting the Sealing Tape at an Angle



2. Working clockwise, gently stretch the sealing tape from the beginning of the sealing tape installed in Step 3: Wrapping the Exposed Connector Threads on page 3 and continue wrapping to 12 mm (0.5 in.) past the electrical tape installed in Step 4: Wrapping the Internal Layer of the Electrical Tape on page 4.

NOTE: Cut, do not tear, the sealing tape. If the sealing tape is overstretched, it loses its self-amalgamating properties.

FIGURE 15 Wrapping the Sealing Tape



3. Gently knead the sealing tape from top to bottom to make sure there are no gaps and to amalgamate the sealing tape.

Step 6: Wrapping the Outer Layer of Electrical Tape

1. Using scissors, cut the end of the electrical tape at an angle. This will allow the electrical tape to be applied with minimal bulk.

FIGURE 16 Cutting the Electrical Tape at an Angle



2. Wrap the electrical tape clockwise to completely cover the sealing tape and continue wrapping to 12 mm (0.5 in.) past the sealing tape installed in Step 5: Wrapping the Main Sealing Tape on page 4.

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FIGURE 17 Wrapping the Electrical Tape



Step 7: Repeating for the Other Cables

Repeat the connector sealing instructions for the three antenna connectors, as shown in Figure 18.

FIGURE 18 Repeating for Other Cables



Step 8: Creating Cable Drip Loops

Physically mount the AP and antennas at your desired location, preferably on the same mounting structure.

Form 80-mm to 130-mm (3-in. to 5-in.) drip loops with the cables.

FIGURE 19 Creating Cable Drip Loops



T305 Caution Notices

A caution calls your attention to a possible hazard that can damage equipment.

CAUTION! The equipment is intended for installation in a Restricted Access Location.

CAUTION! The equipment can be connected to PoE networks without routing to the outside plant.

For More Information

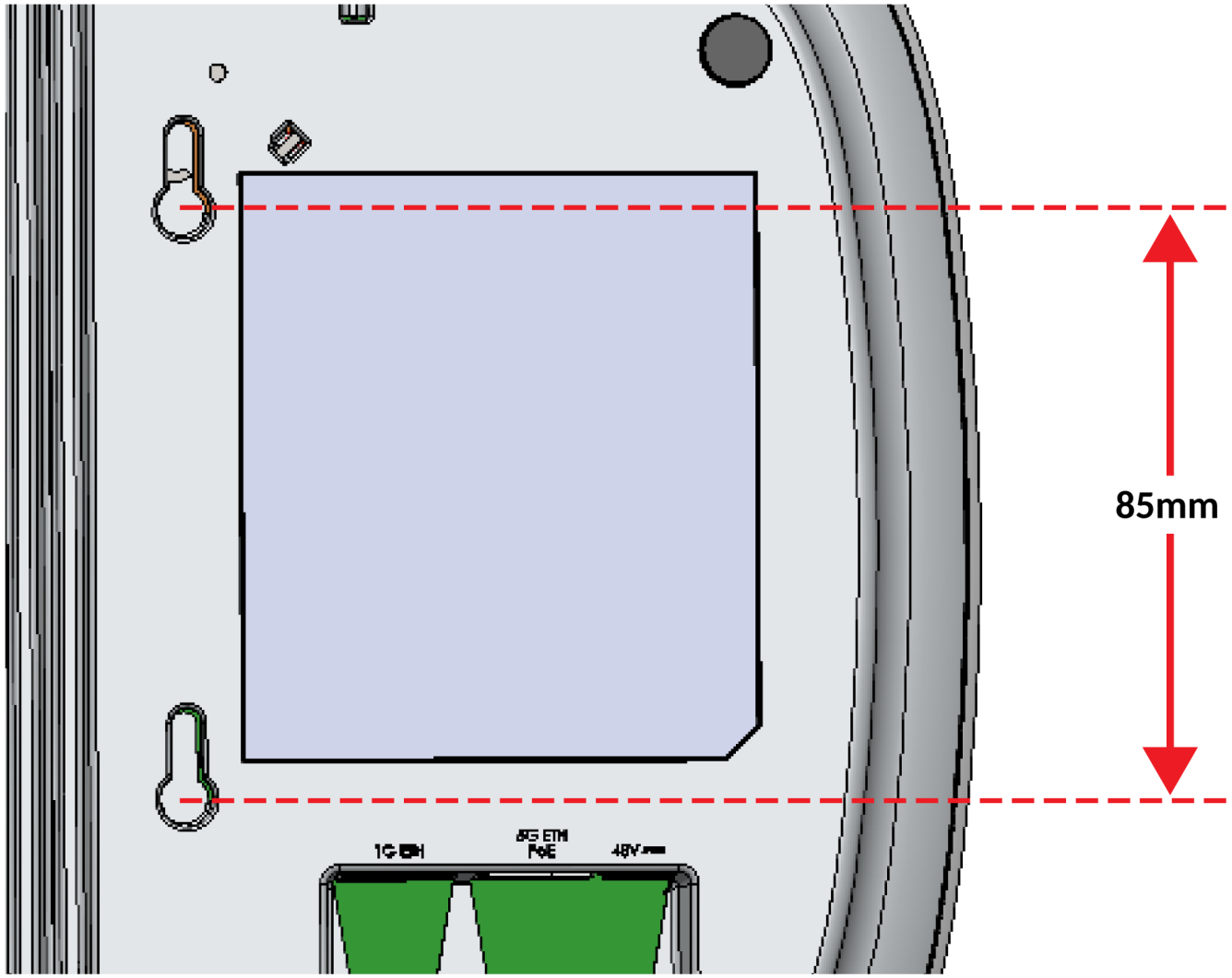
For information on how to configure and manage the AP, refer to the *RUCKUS Access Point User Guide*, available from http://docs.commscope.com/?docs-box.

For the product data sheet, refer to https://www.ruckusnetworks.com/products/wireless-access-points/.

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