Ruckus Q410 LTE Access Point Quick Setup Guide

Introduction

This Quick Setup Guide provides step-by-step instructions on how to set up your Ruckus Q410 LTE Access Point (Q410). After completing the steps described in this guide, you will be able to place Q410 at your site and provide LTE wireless network access to users.

Before You Begin

Before deploying Ruckus Wireless products, please check for the latest information and release documentation at

http://support.ruckuswireless.com/documents

Software License and Limited Warranty are available at

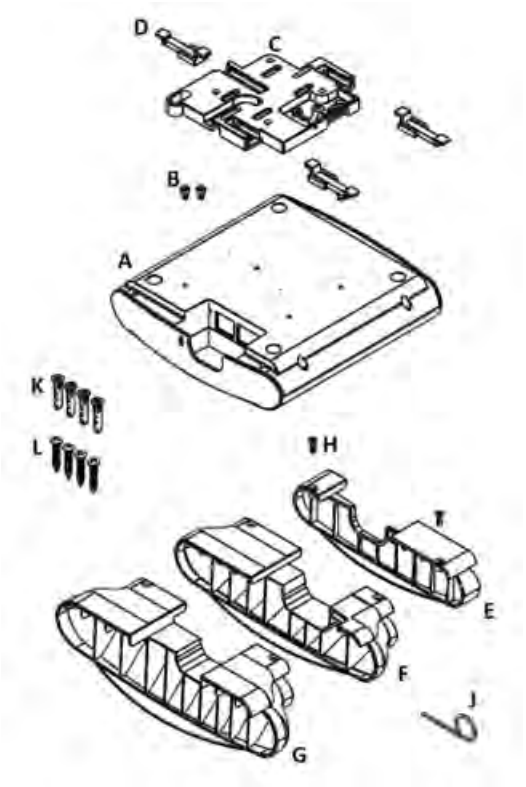
http://support.ruckuswireless.com/warranty

Package Contents

A complete Q410 field installation package includes all of the items listed below (see Figure 1 for illustrations):

- Q410 (A)
- M3 Shoulder Screw (B)
- Q410 Bracket (C)
- Locking Tab (D)
- R510 Band (E)
- R610 Band (F)
- R720 Band (G)
- M3 Flat Head Screw (H)
- Unit Removal Pin (J)
- Drywall Anchors (K)
- No 8. screws (L)
- Ethernet CAT 5 RJ-45 cable
- Service Level Agreement/Limited Warranty Statement
- Regulatory Statement
- This Quick Setup Guide

FIGURE 1 Q410 and associated hardware



Mounting Instructions

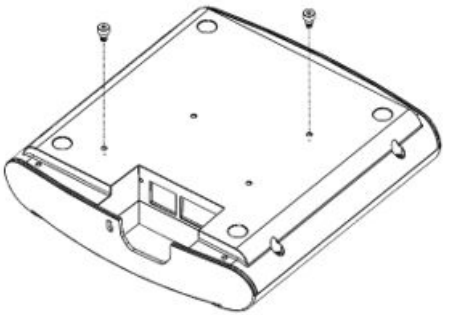
Q410 can be mounted to a ceiling tile T-bar, to a flat surface, to a pole using cable ties, or to a Junction box.

Mounting Q410 AP to a T-bar

Perform the following steps to mount Q410 to a ceiling tile T-bar.

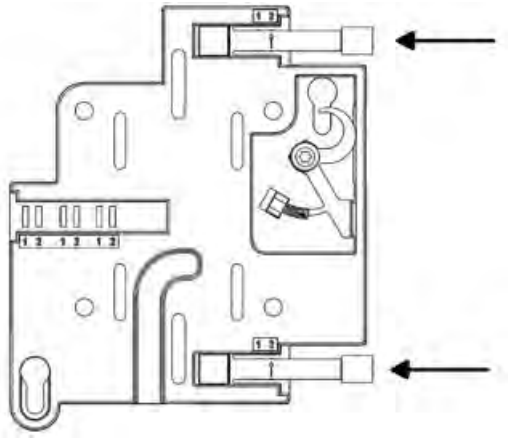
1. Attach the two shoulder screws (B in Figure 1) provided using a 2 mm hex wrench or bit to Q410 (A in Figure 1). It is recommended to tighten the screws to 7 in-lbs (see Figure 2).

FIGURE 2 Attaching the shoulder screws (B)



2. Insert two locking tabs (D in Figure 1) into the two channels on Q410 Bracket (C in Figure 1) as shown in Figure 3. The two tabs should line up with position 2.

FIGURE 3 Align the arrow on the tab with the position printed depending on the AP being linked



3. Position the larger hole of the keyhole on Q410 bracket through shoulder screws on Q410, then slide the bracket away from the Ethernet ports until the screws are in narrow parts of the keyholes (see Figure 4). Q410 locks in place on the bracket.

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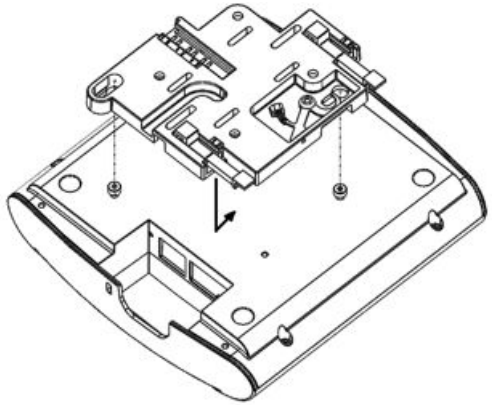
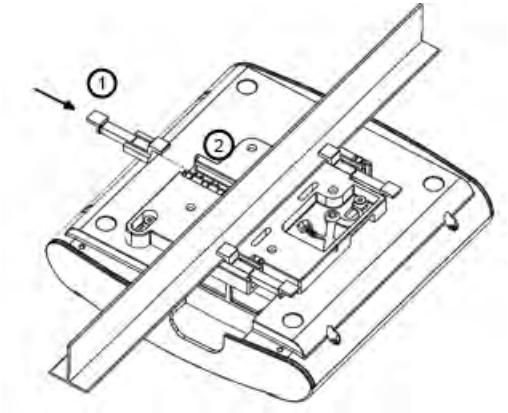
FIGURE 4 Attaching the bracket to Q410



4. Clip Q410 and bracket assembly onto the T-bar. Slide the last locking tab in so that it locks in place around the T-bar into position 2 (see Figure 5).

FIGURE 5 *Attaching the bracket to the T-bar*

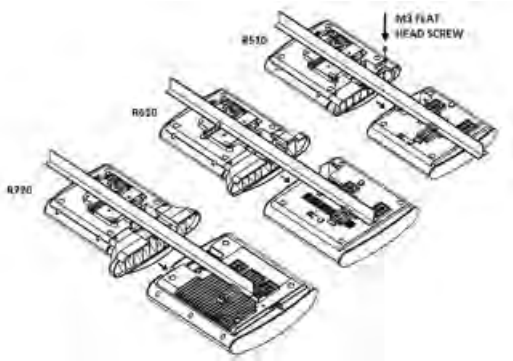


Aligning Q410 to R510, R610, or R720

Perform the following steps to align Q410 to R510, R610, or R720.

1. Attach two tabs as shown in Figure 3. The two tabs should lock in position 1 for R610 and R720 or position 2 for R510.
2. Attach the bracket to Q410 (see Figure 4).
3. Attach the corresponding band (E, F, or G in Figure 1) to Q410 using two M3 flat head screws (H in Figure 1) (see Figure 6). It is recommended to tighten the screws to 7 in-lbs.
4. Clip Q410, band, and bracket assembly onto the T-bar. Slide the locking tab so that it locks in place around the T-bar in position 1 for the R610 and R720 or position 2 for the R510 (see Figure 5).
5. Install R510, R610, or R720 to the T-bar as per their respective installation instructions.
6. Slide Q410 and the other unit together until the band contacts the face on both sides (see Figure 6).

FIGURE 6 Aligning Q410 to other APs

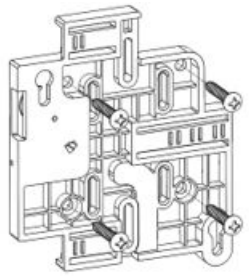


Mounting Q410 to a Flat Surface

Perform the following steps to mount Q410 to a flat surface.

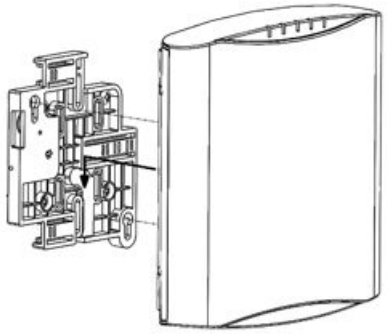
1. If you are mounting Q410 on a flat surface, then you will also need an electric drill with a 4.75 mm (3/16") drill bit, and the four No. 8 zinc plated drywall screws (L in Figure 1) and plastic wall anchors (K in Figure 1) included with the kit.
2. Remove the three tabs (D in Figure 1) and set them aside or store them in the original box.
3. Use the secure mounting bracket as a template to mark the locations for four drill holes on the mounting surface. There are four screw holes available on the secure mounting bracket.
4. Line up the bracket and attach to surface with the drywall screws provided. Make sure the bracket is oriented as shown in Figure 7.

FIGURE 7 *Mounting the bracket to a surface*



5. Attach the two shoulder screws (B in Figure 1) provided using a 2 mm hex wrench or bit to Q410 (A in Figure 1) as shown in Figure 2. It is recommended to tighten the screws to 7 in-lbs.
6. Line up the screws with keyholes and slide Q410 away from the LED Indicators. Q410 locks in place on the bracket (see Figure 8)

FIGURE 8 Attaching Q410 to the Bracket



Mounting Q410 to a Pole using Cable Ties

Perform the following steps to mount Q410 to a Pole using Cable Ties.

If you are mounting Q410 on a pipe or pole, then feed two customer-provided cable ties through the slots on the secure mounting bracket (see Figure 9).

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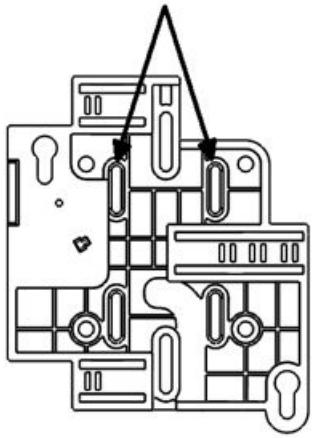
FIGURE 9 Mounting slots for mounting the bracket to a pole or pipe

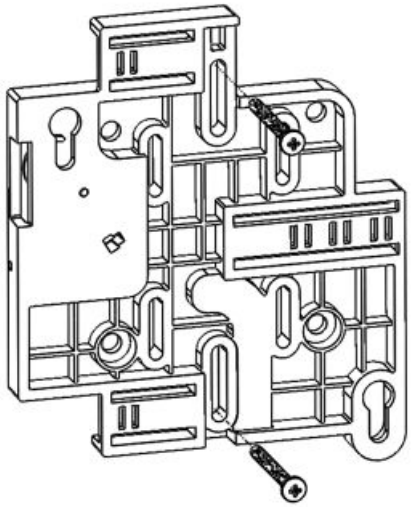


Mounting Q410 to a Junction Box

Perform the following steps to mount Q410 to a Junction Box.

1. If you are mounting to a junction box, insert two customer-provided screws through the slots (see Figure 10) and secure the bracket to the junction box.

FIGURE 10 Attaching the bracket to a junction box



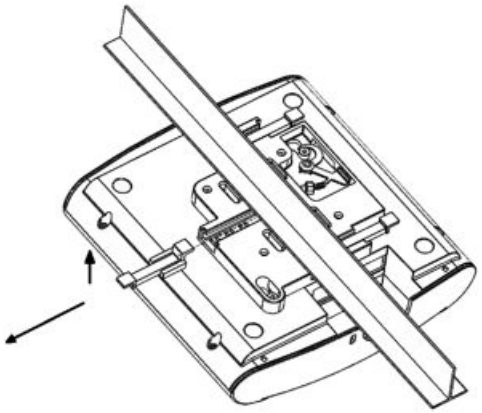
2. Attach Q410 as shown in Figure 8.

Removing Bracket from a T-Bar

Perform the following steps to remove bracket from a T-Bar.

1. Move the ceiling tiles out of the way.
2. Lift the lever arm of the locking tab and slide the tab away from the T-bar to release Q410 bracket assembly from the T-bar (refer Figure 11).

FIGURE 11 Removing the bracket from the T-bar



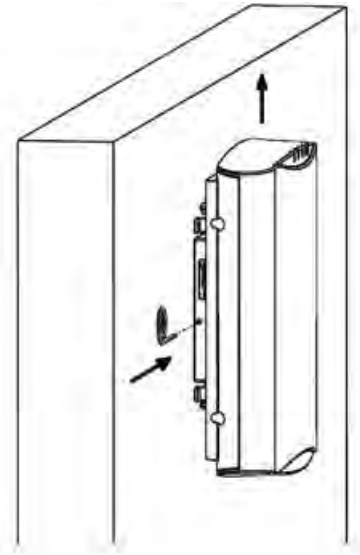
Q410 and bracket assembly comes away from the T-bar.

Removing Q410 from the Bracket

Perform the following step to remove Q410 from the bracket.

Insert the unit removal pin (J in Figure 1) into the hole on the side of the bracket (see Figure 12) to unlock the mounting bracket from Q410 enclosure, then slide Q410 toward the LED Indicator lights and then pull Q410 away until it detaches from the bracket.

FIGURE 12 Removing the bracket from Q410



Making the Connections

Be sure to use a Cat 5e or better Ethernet cable with non-booted connectors (see Figure 13). If using PoE+, attach one end of the Ethernet cable to an 802.3at Type 2-certified switch or PoE+ injector (sold separately). Attach the other end of the Ethernet cable to the PoE+ IN port on Q410 as shown in Figure 14. If using an AC/DC adapter, connect it to the 48V DC power port in Figure 14 and to an electrical outlet.

If connecting to other APs, connect the enclosed short Ethernet CAT 5 RJ-45 cable from the PoE+ OUT port of Q410 to the PoE in port of the other AP.

NOTE: Alternative/Optional power sources, PoE+ and AC/DC adapter, can be ordered separately from Ruckus. The details are as follows:

1. PoE+: P/N 902-0180-US00

   (It includes KIT, SPARE, Integrated Power over Ethernet (PoE) Injector (10/100/1000 Mbps), w/US Power Cord, 1 Unit)

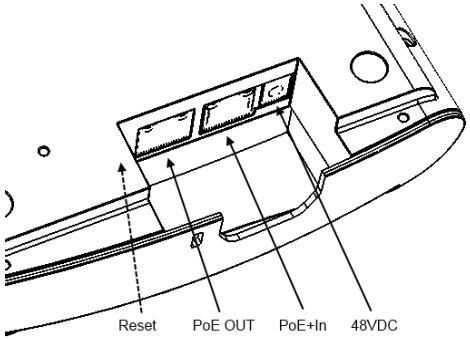
2. AC/DC adapter: P/N 902-1170-US00

   (It includes KIT, SPARE, Modular AC/DC Power adapter, 48V - 36W, w/US Power Cord, 1 Unit)

Published November 2018, Part Number 800-71629-001 Rev C

FIGURE 13 Non-booted Ethernet Connector

FIGURE 14 Port Locations



Checking the LED Lights

LED lights verify the installation of APs. Once connected, the AP will power on and automatically connect to the Ruckus Cloud over the Internet to configure itself. You will see some activity and after 5-10 minutes all lights should turn solid Green or solid Amber (LTE LED).

If any light is off or flashing, see the following table to help you troubleshoot an issue:

Light	Troubleshooting Action
PWR	Check Power, Ethernet connections and PoE (802.3at Type-2 (PoE+) Certified) switch.
EMS	Check Internet connection and network/ firewall settings.
EPC	Check Internet connection and network/ firewall settings.
SYNC	Ensure at least one AP in the network is near an unobstructed window for a good GPS signal.
LTE	For additional guidance, use the Ruckus cloud or contact Customer Care.

For More Information

The AP is now operational and can be further managed by the Ruckus Cloud service. For more information, refer to the appropriate Ruckus Wireless Cloud documentation or visit http://support.ruckuswireless.com

Q410 – LTE Access Point **Ruckus Wireless Inc., an ARRIS Company**

Federal Communications Commission Notices

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this equipment that have not been approved by Ruckus Wireless may void the user's authority to operate this equipment.

For Class B Equipment:
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- — Reorient or relocate the receiving antenna.
- — Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- — Increase the separation between the equipment and receiver.
- — Consult the dealer or an experienced radio/TV technician for help.

This device meets all requirements specified in the FCC Part 96 Rules. This transmitter must not be co-located or operate in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance **25 cm** between the radiator & your body.

Safety Notices and National Restrictions

This product is intended to be installed at a restricted access location and is marked with a visible warning  that the surface may be hot

Professionally Installed Products

The product is to be installed according to the installation instructions. The User/Operator does not have access to the device once the device is installed and in use. Provisions for permanent grounding are provided.

1. Installation personnel: This product is designed for a specific application and is to be installed by qualified personnel with knowledge of RF and applicable rules. General users are not to attempt installation or changing settings.
2. Installation location: The product is to be installed at a location where the radiating antenna can be kept at least 25 cm from any nearby persons in normal operation conditions to meet regulatory RF exposure requirement.
3. Installation procedure: Please refer to installation instructions for details.
4. Warning: Please carefully select the installation position and make sure that the final output power does not exceed the limit set forth in US CFR 47 Part 96. Violation of the rule could lead to serious federal penalty.

Products intended to be powered by an external power supply:

Warning –This product is intended to be supplied by a Listed Direct Plug-In Power Unit marked Class 2 or LPS (sub-clause 2.5 of standard EN 60950-1). Available Ruckus power supplies intended for product operation are identified in the product datasheet. The last two digits of the power supply part number represent the country code. For additional applicable power supplies/options, see user instructions and product datasheet.

Medical Statement

Ruckus Wireless Access Points shall only be used in ME systems where the intended EM ENVIRONMENT does NOT rely on the Wireless radio link for BASIC SAFETY or ESSENTIAL PERFORMANCE of the ME SYSTEM.

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