



Xclaim Xo-1 802.11ac Wi-Fi Access Point Quick Setup Guide

This *Quick Setup Guide* provides step-by-step instructions on how to set up one or more Xclaim Access Points. After completing the steps described in this Guide, you will be able to install the Access Points (APs) at your site and provide wireless network access to users.

BEFORE YOU BEGIN

Your Xclaim Access Point can be managed either by the “CloudManager for Xclaim” web application or the “Harmony for Xclaim” mobile application.

If you decide to use Harmony to manage your Access Points locally, you will need to download the Harmony for Xclaim mobile application. Harmony is supported on iOS platforms (iPhone, iTouch and iPad) and can be downloaded for free from Apple store. Harmony is also available for Android Smartphones and can be downloaded for free from the Google Play store.

PACKAGE CONTENTS

- Xclaim Xo-1 Access Point
- Mounting screws and anchors (2)
- Security screw
- Unit removal pin
- Regulatory flyer
- Product warranty statement
- 1 x Cat5e Patch Cable
- 1 x 802.3af PoE Injector
- This *Quick Setup Guide*

SETUP REQUIREMENTS

You will need:

- An iOS or Android device with the “Harmony for Xclaim” application loaded and running
(or)
An account on CloudManager for Xclaim.
- A modem (DSL or cable), broadband router, or other device provided by your Internet Service Provider that brings Internet access to your site.
- A DHCP server to provide IP addresses to your Access Point and wireless clients that connect to it.
- Either a PoE injector (supplied) or an optional 12V power supply (purchased separately) or your own 802.3af or 802.3at compliant PoE switch.

STEP 1: INITIAL CONFIGURATION

Setting up the Access Point

You can initially set up your Xclaim Access Points in one location and then later relocate them when you are satisfied with the configuration

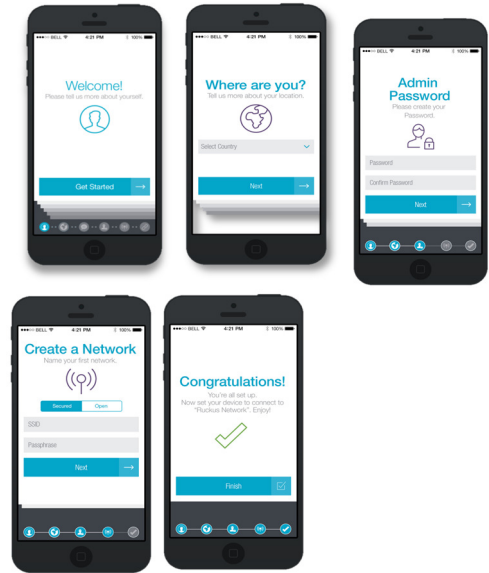
- 1 Remove the Xclaim Access Point from its packaging
- 2 Power up the Access Point
 - a. Connect the Access Point to a 802.3af (PoE) compliant switch.
 - b. Alternatively, Plug in the supplied PoE injector to a convenient and protected power outlet
- 3 Connect the “PoE out” port of the PoE injector to the Xclaim Access Point
- 4 Connect the remaining Ethernet port on the PoE injector to a spare port on your Ethernet switch or DSL/Cable Modem
- 5 Once power has been supplied to the Xclaim Access Point, verify that the Power Indicator on the Xclaim Access Point is illuminated.

Option #1 - Setting up your CloudManager account

1. Visit <http://www.xclaimwireless.com> and register for an account. Enter a valid email-ID, username and password.
2. Login with either the username or email ID to access your account.

Option #2 - Setting up HARMONY

1. After installing Harmony, open the mobile application. You will now enter the setup Wizard.
2. Select the country, which will in turn be pushed to Access Points and acts as the regulatory domain for all your Access Points.
3. Please create the “Admin” password. This password will be used to login to the mobile application and will also be synced with the Access Point.
4. The next screen allows you to create a network to assign to Access Points later. You can choose to skip this if you wish.
5. Click “Finish”. You are now ready to start configuring your Access Point using Harmony.



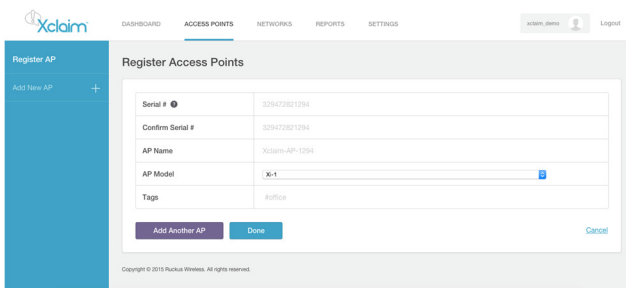
STEP 2: Register/Claim Access Point(s)

Option #1 - Via CloudManager

1. When logging in for the first time, you will be automatically shown the “Register Access Point” page.
2. Please enter the serial number of the Access Point (found at the back of the Access Point), configure an Access Point name and other parameters and click “Save”.
3. Your Access Point is now “claimed/registered”

and you are ready to apply configurations to the Access Point.

- The Access Point's LED color should now be "SOLID/CONSTANT GREEN"



Option #2- Via Harmony

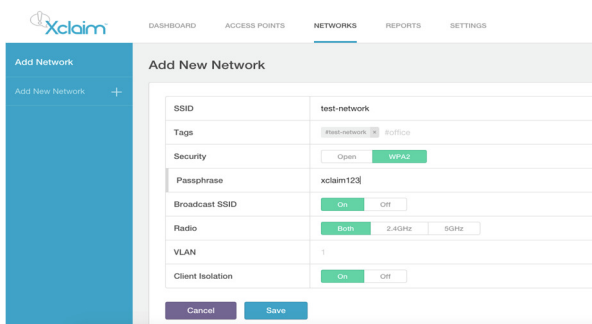
- Make sure that Wi-Fi is enabled on your tablet or smartphone
- Before you open the Harmony application, connect to the "Xclaim Set-Up" Wi-Fi SSID
- Open the Harmony application
- Login using the password that was configured during Harmony's setup.
- The Harmony application will open and locate all Xclaim APs deployed on your network
- Tap on the AP to configure. This should open up the AP configuration page. Enter the AP details and click on Save.

The AP's LED should now be "SOLID/CONSTANT GREEN"

STEP 3: Create Network(s) / WLAN(s) / SSID(s)

Option #1 - Via CloudManager

- Click the "Networks" tab in the top panel. This will take you to the Networks page.
- Click the "Add New Network+" link in the left-side panel. This will show you the "Add new network" page.
- Configure the network with required parameters and click Save.



Option #2 - Via HARMONY

- Open Harmony and tap the Configure -> Networks tab.
- Click the "+" icon at the top right corner to add a network.
- This will allow you to create a new network. Configure the network/WLAN with the required settings.
- Click Save once you are done.

STEP 3: Attaching the created network to the Access Point.

Option #1 - Via CloudManager

- Click the "Access Points" tab in the top panel. This should take you back to the Access point's page.
- Click the Access Point that you would like to configure.
- A right side-panel should now open up. In that side-panel, please click the "Edit Access Point" link. This should take you to the Edit Access Point page.
- In the "Add Networks" section, type in the SSID name of the network created in the previous step. CloudManager should autocomplete the SSID name for you.
- Click "Save" to save the configuration and apply it to the Access Point.
- You will now notice that the "xclaim-setup" SSID is automatically disabled and the custom WLAN that you applied is enabled on the Access Point.

Option #2 - Via HARMONY

- Open Harmony and tap the Configure -> Access Points tab.
- Tap the Access Point that you would like to configure.
- Scroll down to the bottom of the page and tap the network name that should have been created earlier.
- Click "Save", to save the configuration and apply it to the Access Point.
- You will now notice that the "xclaim-setup" SSID is automatically disabled and the custom WLAN that you applied is enabled on the Access Point.

STEP 5: Place the Access Point

- Move the Access Point to its permanent location.
- Use an Ethernet cable to connect the 10/100/1000 port of the Access Point to your network.
NOTE: If you will be using PoE, you will need a Cat 5e (or better) Ethernet cable to connect the Access Point to the supplied PoE injector or directly to an existing PoE switch. Also, please ensure that the distance from the PoE switch to the Access Point not exceed 100m(328 ft.).
- If using the supplied PoE adapter, connect this to a suitable power source.
- Verify that the 10/100/1000 Ethernet ports' LED is lit on the Access Point.

STEP 6: Verify your installation

- Using any wireless-enabled computer or mobile device, search for and select the wireless network you previously configured
- If you can connect, open a browser and link to any public web site.

Congratulations! Your wireless network is active and ready for use. If you need to configure advanced wireless settings, such as enabling security, see the Xclaim Access Point User Guide.

(OPTIONAL) MOUNTING INSTRUCTIONS

Xo-1 ANTENNA COVERAGE

The Xo-1 AP includes internal omni 5GHz and 2.4GHz antennas, and has two female N-type connector for optional customer-ordered external 5GHz antennas.

Internal Omni Antennas

When the internal antennas are used, the Xo-1 is best deployed where lateral beamforming can provide the greatest reach and throughput to a wide coverage area, or to provide the greatest distance between APs in a connecting mesh device. See Figure 1 for a typical side view coverage pattern, see Figure 2 for a typical top view coverage pattern, and see Figure 3 for a typical mesh coverage pattern.

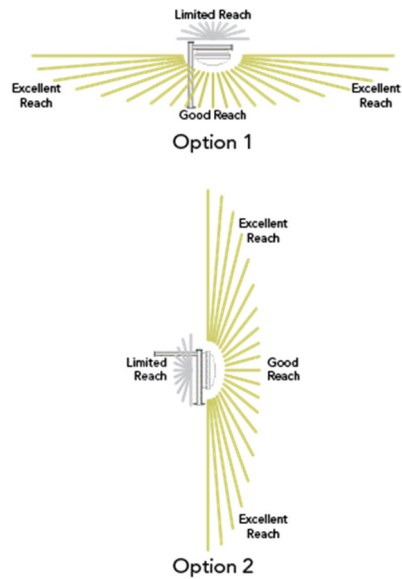


Figure 1 – Typical AP internal omni coverage, side view



Figure 2 – Typical AP internal omni coverage, top view

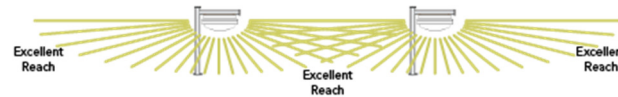


Figure 3 – Typical AP internal-antenna mesh elevation plane coverage, side view

External Customer-Supplied 5GHz Antennas

Instead of the internal omni 5GHz antennas, the Xo-1 can use one or two external 5GHz antennas in point-to-point and other specialized deployments for extended backhaul, higher throughput, and/or larger or smaller beamwidths than those provided by Ruckus Wireless AP internal antennas.

Figure 4 shows the Xo-1 used in a typical backhaul deployment.



Figure 4 – Typical AP long-range point-to-point deployment

Step 1: Connecting and Sealing the RJ-45 Cable

The AP uses one RJ-45 cable for Ethernet backhaul and Power over Ethernet (PoE). Connect and seal the cable using the M25 data cable gland.

Feed the end of the RJ-45 cable through the sealing nut (D in Figure 5), rubber sealing insert (C in Figure 5), clamping ring assembly (B in Figure 5) and cable gland base (A in Figure 5).

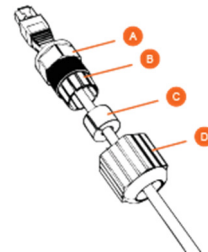


Figure 5 – RJ-45 cable and cable gland assembly

Use a wide flat-blade screwdriver to remove the blanking cap from the AP.

Connect the cable to the Ethernet port in the AP.

Tighten the cable gland base into the AP chassis to 7 N.m or 62 in-lbs.

Wrap the clamping ring assembly around the rubber sealing insert. Make sure that the clamping ring assembly fully encloses the rubber sealing insert.

Seat the clamping ring assembly and rubber sealing insert in

the cable gland base.

Tighten the sealing nut to 1.1 N.m or 10 in-lbs, or until the rubber sealing insert is compressed.

Continue with Step 2a: Attaching the Mounting Bracket to a Flat Surface or Step 2b: Attaching the Mounting Bracket to a Metal Pole.

Step 2a: Attaching the Mounting Bracket to a Flat Surface

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 (A in Figure 6) and pull up on the end of the bracket to remove the bracket from the AP (B in Figure 6).



Figure 6 – Removing the mounting bracket

Using either of the two options shown in Figure 7, 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 7 – Mounting bracket on a flat surface

Remove the mounting bracket from the mounting surface.

Drill holes required for the customer-supplied mounting hardware.

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

Using the mounting hardware instructions, tighten the hardware to secure the mounting bracket.

Continue with Step 3: Mounting the AP.

Step 2b: Attaching the Mounting Bracket to a Metal Pole

The AP mounting bracket attaches to the AP using a captive screw. Loosen the screw (A in Figure 6) and pull up on the end of the bracket to remove the bracket from the AP (B in Figure 6).

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.

Using either of the two options shown in Figure 8, use the clamp(s) 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.

If necessary, daisy-chain the other steel clamps to accommodate larger poles.



Figure 8 – Mounting bracket on a pole

Continue with Step 3: Mounting the AP.

Step 3: Mounting the AP

Snap the AP back onto the mounting bracket (A in Figure 9), 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 (B in Figure 9).



Figure 9 – Attaching the mounting bracket to the AP

Optional Step: If you also need to lock the mounting bracket to the AP, then use a matching security screwdriver to screw the customer-supplied locking stainless steel 6mm 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.

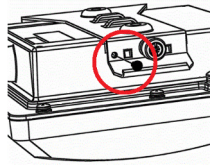


Figure 10 – Locking the mounting bracket to the AP

Continue with Step 4: Earth Grounding the AP.

Step 4: 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, connect a good earth ground to the AP chassis ground point (A in Figure 12).

CAUTION: The Xo-1 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 11 – Connect good earth ground to the AP here

Optional Step 5: Mounting and Connecting an External 5GHz Antenna

You can optionally connect two customer-ordered 5GHz external antennas to the standard N-type female connectors on the Xo-1 AP.

Disconnect the AP from its power source.

WARNING: Before connecting the antennas to the AP, make sure that you disconnect the AP from the power source.

NOTE: Refer to Required Hardware and Tools for information on tested 5GHz external antennas.

Unscrew the metal caps that protect the antenna connectors. Place the metal caps in a safe place for later use.

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

NOTE: Mount the external antennas at least 20cm (7.9") away from each other and away from other antennas, if possible.

If the antennas do not use RF coaxial cables, then connect the antennas directly to the antenna connectors on the AP. Use a torque wrench to tighten the connectors to 1.58 N.m (14 in-lbs). Follow all instructions provided by the antenna manufacturer.

--OR--

If the antennas do use RF coaxial cables, then connect the antennas to the antenna connectors on the AP and on the antennas. Use a torque wrench to tighten the connectors to 1.58 N.m (14 in-lbs). Follow all instructions provided by the antenna manufacturer.

Apply weatherproofing tape to the antenna connectors as described in the Ruckus Wireless N-Type Connector Sealing Instructions.

Refer to the Xo-1 802.11ac Outdoor Access Point Installation Guide and enable the 5GHz external antennas, and then set the 5GHz external antenna gain.

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

Congratulations! You have mounted your Xo-1 access point.