Quick Installation Guide for XR-320 Models

The Cambium Xirrus XR-320 is a 2x2 802.11ac Wave 1 indoor wall access point (AP) with two fixed-band radios, one at 5 GHz and one at 2.4 GHz. It includes an Ethernet wall switch with four 10/100/1000 ports, one of which may supply power.

Ports

BACK — UPLINK-PoE+, PASS-THROUGH, LOCKING SLOT

BOTTOM — LAN1, LAN2, LAN3, LAN4 (PoE)

LEFT — POWER, 2.4G/5G, UPLINK, LAN1, LAN2, LAN3, LAN4 (PoE), LOCKING SCREW

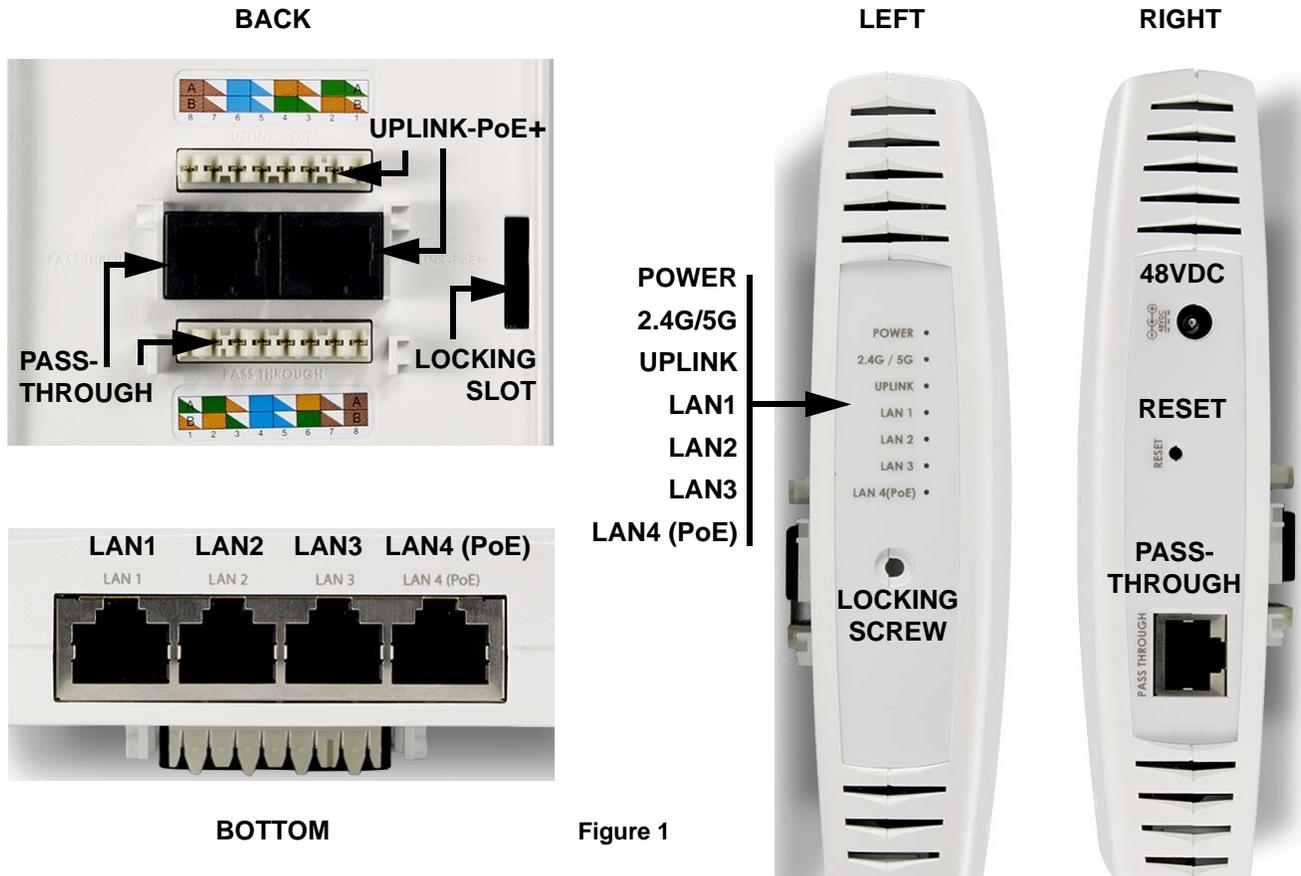**RIGHT** — 48VDC, RESET, PASS-THROUGH

Figure 1

The wall AP has the following ports and jacks. For the UPLINK-PoE+ and Pass-Through ports, you may use either an RJ-45 or a punch-down connection.

- **UPLINK-PoE+**—this Gigabit port supplies data and Power over Ethernet (PoE) to the AP. It also supplies data to the four switch (LAN) ports on the bottom. For more details on wall AP power, see 48 VDC below, and "Supply Power" under the The wall AP has the following ports and jacks. For the UPLINK-PoE+ and Pass-Through ports, you may use either an RJ-45 or a punch-down connection. section.

- **Pass-Through**—this port provides an RJ-45 Ethernet pass-through connection (with or without PoE) from the back of the wall AP to a port on its side. The signals and power on this port are not used by the AP, but are simply passed through for your convenience. For example, if you have a wall plate with a single RJ-45 jack for a VoIP phone, you can run a PoE cable for the wall AP and use the pass-through for the VoIP connection.

- **LAN1 to LAN4-PoE**—the wall AP also functions as a switch, and provides these four switch ports. LAN4-PoE can provide 802.3af power to a device, if you meet the power requirements described below in "Supply Power" under the The wall AP has the following ports and jacks. For the UPLINK-PoE+ and Pass-Through ports, you may use either an RJ-45 or a punch-down connection. section.

◆ **48 VDC**—if you do not power the AP using PoE, you may power it using a 48 VDC adapter instead, as described below in "Supply Power" under the The wall AP has the following ports and jacks. For the UPLINK-PoE+ and Pass-Through ports, you may use either an RJ-45 or a punch-down connection. section.

Preparation

◆ Run a data uplink cable (Cat5e/Cat6) for the Gigabit uplink port.

◆ Supply power—the XR-320 is powered via IEEE 802.3af or 802.3at Power over Ethernet (PoE) on the same cable as the data uplink. Alternatively, you can use a 48 VDC power adapter to power the AP instead of PoE. *The total PoE uplink cable length must be no more than 100 m, including all cable segments. The AP must be connected to PoE networks without routing cables to the outside plant.*

Some of the wall AP's power can be used to supply 802.3af power to a device connected to the LAN4-PoE switch port. For this application, you must meet one of the following conditions.

◆ Supply 802.3at PoE power to the UPLINK-PoE+ port.

◆ Or you can supply your own local 48 VDC power adapter meeting these specifications:

Output Power	+48VDC
Nominal Load Current	0.63A
Ripple and Noise	At 20Mhz, and output parallel with 0.1uF and 10uF capacitors to ground, temperature at 25°C, at nominal input voltage
Connector	Jack Plug 55*2.5*11.5mm
Polarity	positive polarity

◆ Pass-through port—this connection is optional.

◆ LAN ports—these four switch ports on the bottom of the XR-320 allow you to provide Ethernet connectivity to other devices. These connections are optional.

Wall Installation

XR-320 APs should be mounted on an inside wall.

Figure 2

Locking tab

1. Remove the blank wall plate from the wall with a screwdriver.

2. As shown in Figure 2, feed the Uplink (PoE) and optional Pass-Through cables through the opening in the supplied mounting bracket and secure the bracket to the wall using the two screw holes previously occupied by the blank wall plate. Ensure that the "UP" label is at the top, and that the tab for the locking screw is on the left facing towards you.

3. Connect the cables as follows. Plug the Uplink-PoE+ and optional Pass-Through cables into their respective sockets as shown in Figure 3 (A). If the cables are not fitted with RJ-45 jacks, they can be connected to the punch down blocks using a dedicated network cable tool according to the sequence of colored wires marked on the back of the AP, as shown in Figure 3 (B).
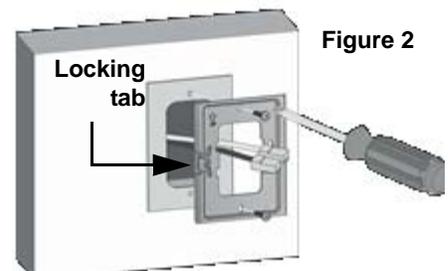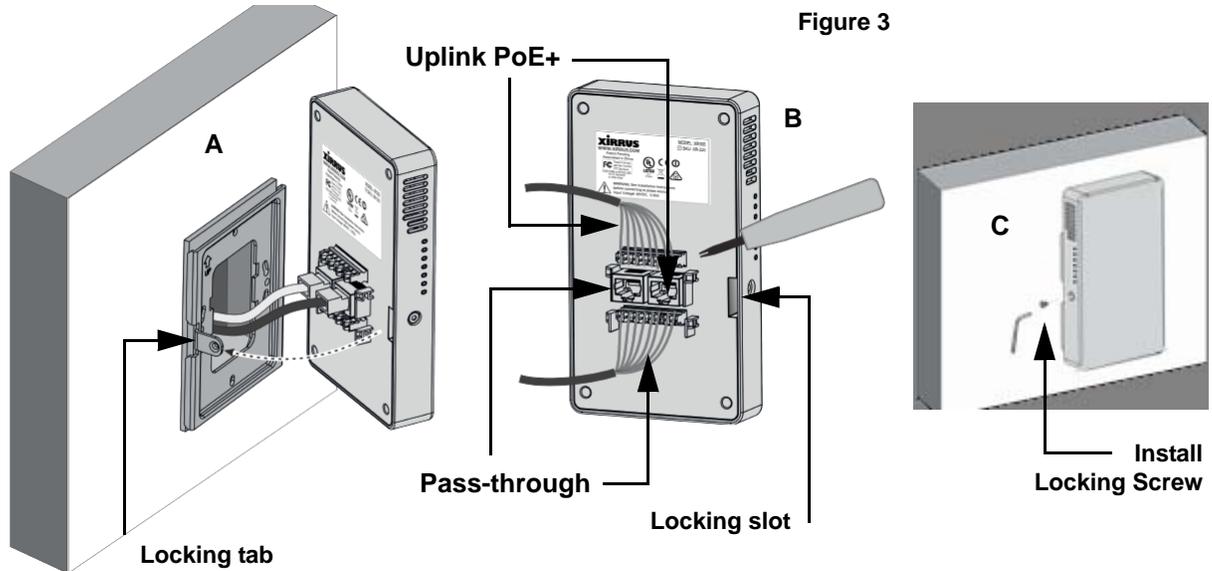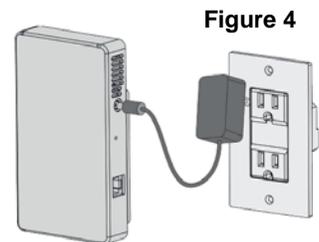
*NOTE: Once you connect the GIG1/POE port, an automatic upgrade typically starts soon after the AP has Internet connectivity. **Do not unplug this port while booting or during the upgrade process or the AP may become inoperable**. The upgrade should take 10 minutes or less depending on bandwidth.*

Figure 3

Uplink PoE+

A

B

C

Install Locking Screw

Pass-through

Locking slot

Locking tab

4. Move the AP into position against the bracket. Make sure that the locking tab mates with the locking slot as indicated by the dotted line in Figure 3 (A). Secure the AP to the mounting bracket using the locking screw, as shown in Figure 3 (C). The screw should be tightened to not more than 20Kgf and care should be taken not to damage the equipment.

5. If you have not supplied power via PoE, use a local 48 VDC power adapter (meeting the specifications on Page 1) as shown in Figure 4.

Figure 4

6. When the correct power is supplied, the POWER LED on the side of the unit lights, and the XR-320 boots up.

7. Note that once the AP is configured by XMS as described below, the 2.4G/5G LED lights up when one or both radios are enabled. Orange indicates that the 5GHz radio is on or that both radios are on. Green indicates that only the 2.4GHz radio is on.

Zero-Touch Provisioning and Management

XR-320 APs are managed by Xirrus Management System (XMS) for initial setup and continuing management. Once you configure a default XMS profile with desired AP settings, newly discovered APs are automatically assigned to that profile, and its configuration and software version are sent to the APs. Additional profiles may be created for different needs. Wait ten minutes after powering an AP to allow XMS to discover and upgrade it before using XMS to manage it.

XMS is available in two versions:

♦ **XMS-Cloud**—performs zero-touch provisioning. New APs appear in XMS even before you receive your equipment. When the email arrives with your login information, use XMS-Cloud to create profiles and assign APs to them. A Guided Tour will walk you through the basic steps of creating a profile containing configuration settings, including creating SSIDs and firewall/application control rules. Once the installed AP

has Internet connectivity, it will automatically contact Cambium Xirrus for provisioning per your settings, install the license, and upgrade the AP to the latest software version as appropriate.

- ◆**XMS-Enterprise**—automatically detects and provisions new Cambium Xirrus devices deployed in the network via a similar provisioning approach. Set up discovery for the subnetwork containing your APs, and configure a default AOS-Lite profile for newly added APs. After discovery, these new devices automatically receive the configuration defined in your default profile.

Manual Reset

To manually reset the XR-320, use the RESET button located above the Pass-Through port. Use a paper clip to depress and hold the Reset button (there should be a faint click). There are three actions that the XR-320 can perform depending on how long the button is held down.

- ◆ LED test—2 second hold time: all LEDs light for ten seconds.
- ◆ Soft reset—4 second hold time: XR-320 reboots and uses the last saved configuration.
- ◆ Factory reset—this requires an unlikely sequence of actions so that it is difficult for a hotel guest or dorm occupant to factory reset the XR-320, which is typically in a very accessible location.
  - Depress the Reset button for **at least** 60 seconds.
  - Release it and wait for a few seconds (but **less than** 10 seconds).
  - Then hold the button again for **at least** 10 seconds. When 10 seconds is reached, the XR-320 reboots and restores the factory default settings.

The IP address of the AP is not preserved. We recommend that you set up a DHCP reservation for the AP's GIG1 port MAC address in advance, so that when the AP requests a DHCP address, you know what it will be.

Modelo XR300

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" Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário."