

AltoPlex C410 and C420 Quick Start Guide

C410/C420 box contents



- ☞ C410/C420 radio.
- ☞ IP67 cable gland.
- ☞ Indoor 15W PoE injector and power cord.
 - Optional available outdoor PoE switch: Model number AX-PSW-OD-4AT-4C25.
- ☞ QR code card for Quick Start and User Guide.

Installation

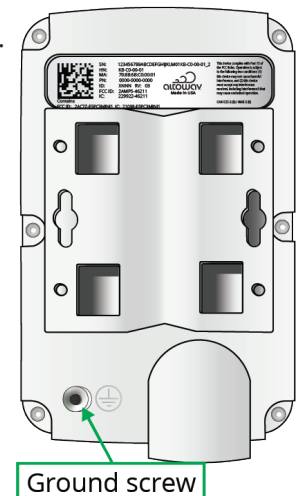
Notes:

- Distribution nodes (D621s) should be installed and configured prior to installing client nodes. See the [D621 Quick Start Guide](#) for further information.
 - Access the WebUI of the distribution node is required to configure the link.
 - The hostname (**KB-XX-XX-XX**) of the client node is required to configure the link. Installers should note the hostnames of client nodes during installation.
- Orient the C410/C420 to face toward the distribution node.
- Clear line of sight (LOS) to the distribution node is required.
- If the C410/C420 is repositioned or re-aimed after connections are made, rebeamform the link by either:
 - Removing and re-adding the link from the distribution node's CN responder list.
 - Rebooting or power-cycling the radio.

1 Attach a ground wire to the ground screw.
Local codes determine whether grounding is required or optional.

2 Securely mount the C410/C420 on the pole or wall.

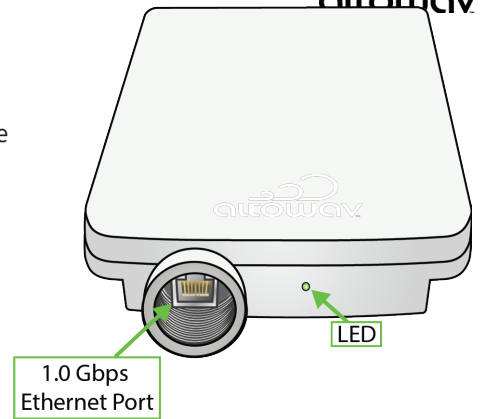
- Make sure the radio is aimed for clear LOS to the distribution node at the remote end of the wireless link.
- Use [Mounting brackets](#) for a secure mount on a pole or wall.



- 3 **Install an adequate length of Cat5e or higher rated cable in the Ethernet port.**
- 4 **Power up the C410/C420.**
Connect the cable from the C410/C420 to the PoE port on the injector. Connect the injector to AC power. See [Cable gland](#) for more information.

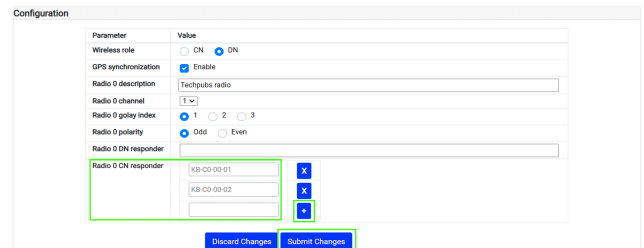
5 **Verify power.**

- LED flashing pattern:
 - Red while powering up.
 - Flashing green/red while booting.
 - Flashing green (waiting for wired or wireless links) or solid green (wired and/or wireless connection).



6 **Initiate the link.**

- a. Log into the the WebUI of the connecting distribution node. See the [D621 Quick Start Guide](#) for instructions.
- b. In the WebUI of the distribution node, click the **Wireless** tab.
 - i. In the **Configuration** section, for **Radio 0 CN responder**, type the hostname (**KB-XX-XX-XX**) of the client node.
 - ii. Click **Submit Changes**.
- c. Verify connections as devices are installed. Click to add additional client nodes.



Note: Client nodes inherit the AltoCommand server configuration from their linked distribution node. See the [D621 Quick Start Guide](#) for instructions about connecting a distribution node to an AltoCommand server..

Access the WebUI of the C410/C420 to verify connectivity

To access the WebUI of the C410/C420:

- 1 On the **Status** page of the connected distribution node, in the **Wireless** section, click on the device listed in the Peer-Name column.

You can also connect to the radio from the AltoCommand user interface. See the [AltoCommand User Guide](#) for details.

- 2 The C410/C420 WebUI will open to the **Status** page. In the **Wireless** section, verify that the device is connected.

Radio	MAC Address	Description	Chan	DN/ CN	Peer-Name	State	Link Uptime	SNR	RSSI	TX MCS	TX Power Index	TX angles	RD ar
0	70:88:eb:c0:00:00	radio 0 description not set	2	CN	KB-C0-00-01	UP	0 days 00:13:22	12/20	-62/-54	10/9	6/8	-3.5/0 -24.8/7.5	< 2

MAC Address	State	Channel	Remote MAC	Peer-Name	SNR Local/Remote	RSSI Local/Remote	TX MCS Local/Remote	TX Power Index Local/Remote
70:88:eb:c0:00:03	UP	4	70:88:eb:c0:00:04	KB-C0-00-04	11/12	-63/-62	9/9	12/7

Additional configuration

C410/C420 radios are configured to work out of the box with AltoPlex distribution nodes. However, there are additional configuration tasks that are strongly recommended:

- Upgrade the radio's firmware.
- Set the location and description of the radio.
- If DHCP is not being used, set the radio's static IP address and related networking information.

Connect to the radio

- 1 Access the WebUI of the radio by typing **https://hostname.local** or **https://ip_address** in your browser's URL address bar.
 - **Hostname** — If your computer supports mDNS and is on the same subnet as the radio, you can use the hostname (**KB-XX-XX-XX**) to connect to the radio.
 - **IP address** — If the radio is connected to a network with a DHCP server, it will automatically get an IP address from the server.
 - The default fallback static IP address varies by firmware version:
 - ◆ 3.6.0 or newer: 192.168.0.1. Radios upgraded to 3.6.0 will have a default IP of 192.168.0.51 until they have been factory reset.
 - ◆ Prior to 3.6.0: The default IP is on a label affixed to the front of the radio at manufacturing time.
 - To connect to the radio by using the IP address, you may need to reconfigure your computer's networking to be a member of the radio's subnet (for example, 192.168.0.x).
 - **Wi-Fi** — You can also access the radio by using the Wi-Fi management access point. You must be in close range of the radio, generally within 10-20 feet.
 - Default SSID — Hostname of the radio (**KB-XX-XX-XX**).
 - Default password — **AltoWav@123**.
 - Default IP address Wi-Fi management purposes — **192.168.5.1**.
- 2 At the warning screen, click **Advanced** and then **Proceed to...**
- 3 Click **login** to log into the WebUI. The default password is **admin**.

Upgrade firmware

The recommended way to upgrade firmware is to use the AltoCommand server. This facilitates fleet-wide upgrades that are performed in the correct sequence to minimize radio downtime. See the [AltoCommand User Guide](#) for information and procedures.

To upgrade firmware for an individual C410/C420 radio:

- 1 [Download the latest firmware](#) to your local PC and unzip the downloaded file.
- 2 After logging into the radio, click the **Admin** tab.
- 3 Click **Upgrade firmware**.
- 4 Click **Choose file** and select the firmware file you downloaded in step 1.

The firmware filename consists of three parts: kb_sw-prod-DEVO-<version_number>.

- 5 Click **Start Upgrade**.

Set the location and description

The location and description of the radio are useful for operators to be able to identify individual radios in your network. They are also used by AltoCommand to identify radios on the Map.

- 1 After logging into the radio, click the **Admin** tab.
- 2 For **Location**, type a phrase identifying the location of the radio. For example, **Building1, SW corner**.
- 3 For **Description**, type a phrase describing the radio. For example, **Radio linked to Building2 DN**.
- 4 Click **Save Changes**.

Set the radio's static IP address

By default, AltoPlex radios use dynamic IP assignment to acquire an IP address from a DHCP server running on the network, and have a default fallback IP address of 192.168.0.1. If your radio is not connected to a network with a DHCP server, you should change the default IP address.

- 1 After logging into the radio, click the **Network** tab.
- 2 In the **Network Reachability Configuration** section, for **IP assignment method**, click **Static**.
- 3 For **IP address**, type the new static IP address.
- 4 For **Network mask**, type the network mask, for example, 255.255.255.0
- 5 For **Network gateway**, type the IP address of the network gateway.
- 6 Click **Submit Changes**.

Other additional configuration

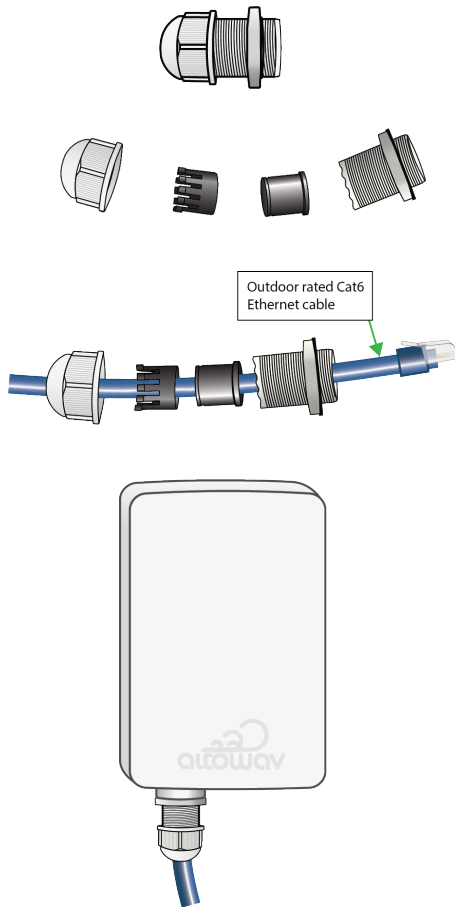
Additional configuration tasks include:

- Change the password
- MAC filtering
- vLAN configuration
- Spanning Tree Protocol
- Other networking settings.

See the [C410 and C420 User Guide](#) for instructions.

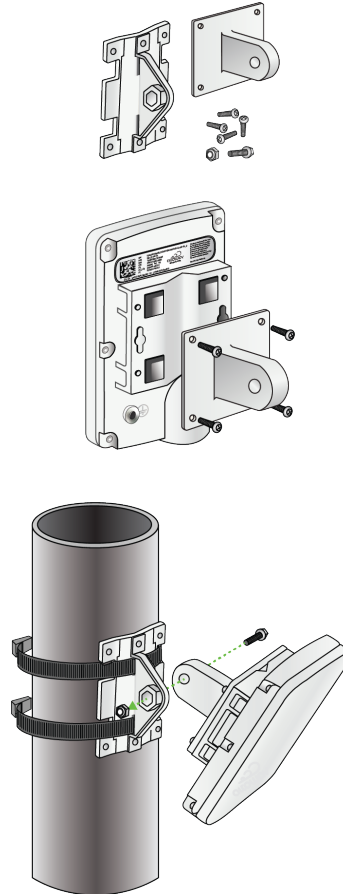
Cable gland

Ethernet cable installation

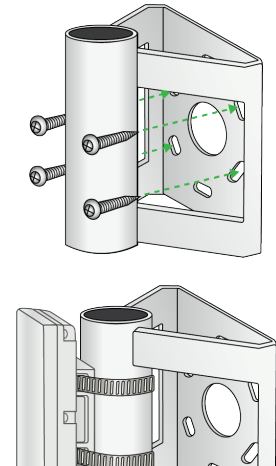


Mounting brackets

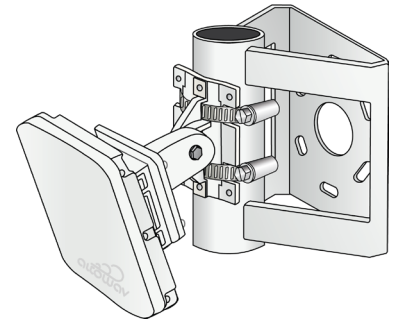
Model number: AX-AW3-MT-EXT



Model number: AX-AW3-MT-WALL



Both mounting options combined:



Further information

For additional information, see:

- [C410/C420 User Guide](#)
- [D621 Quick Start Guide](#)
- [D621 User Guide](#)
- [D423 Quick Start Guide](#)
- [D423 User Guide](#)
- [AltoCommand Quick Start Guide](#)
- [AltoCommand User Guide](#)
- [AltoPlex REST API version 002 Usage Guide](#)

Technical support

Altowav is committed to providing our customers with high quality technical support. Contact us at:

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