
Installation Guide

Autani Manager + RTR + CR05



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1. Introduction

The Autani Manager with RTR+CR05 allows EnergyCenter® to communicate with Keilton+autani devices. Presently, commissioning of these devices is managed exclusively by the iOS version the Keilton+autani application.

Users may commission Keilton+autani devices before or after installing the Autani Manager with RTR+CR05, bearing in mind that a CR05 is required per Zone and must be added to the 'Zone' through the Keilton+autani application.

2. Mounting Instructions

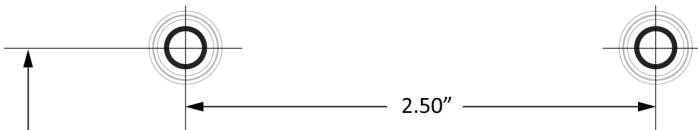
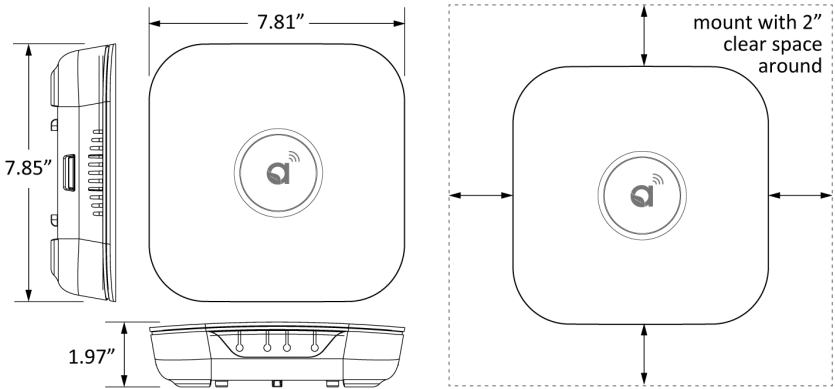
The Autani Manager, RTR and CR05 can be mounted to a ceiling tile or wall and should be mounted within a range of 1000 feet line of sight to the controlling/communication devices, and near a 120VAC wall outlet. When using fixture controllers with the Autani Manager, please consult with Autani support to determine the distance between edge devices and the Autani Manager, as these ranges may vary based on the edge device that is used.

NOTE: The Autani Manager should NOT be installed near any type of heat sources--specifically, heating systems or areas that are receiving direct sunlight for the majority of the day.

2.1. Space Requirement

The Autani Manager, RTR and CR05 should be mounted with minimum clearances for ventilation and signal transmission, as shown below.

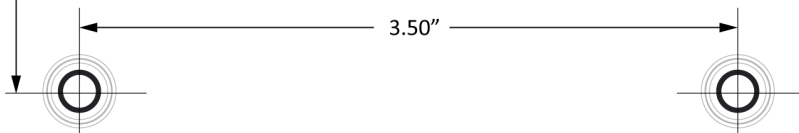
2.1.1. Autani Manager



**MOUNTING HOLE DIMENSIONS
(TOP OF WALL PLATE / BACKPLATE)**

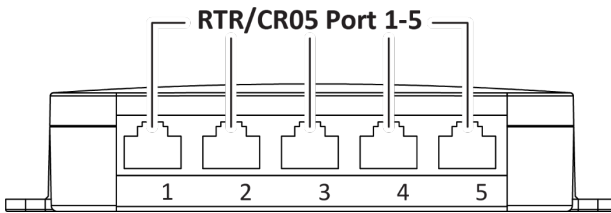
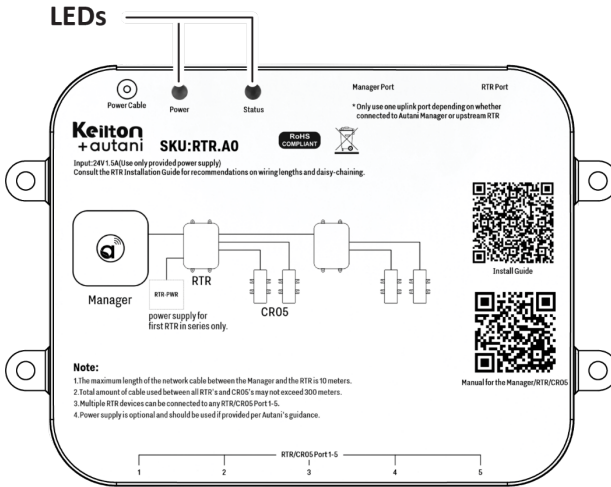
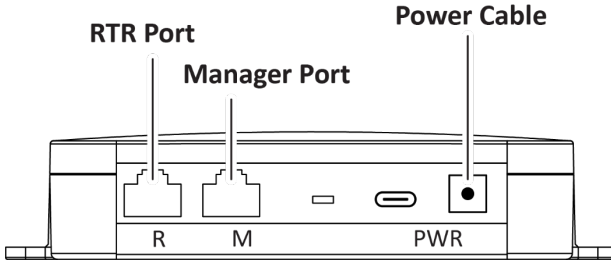
2.59"

**PRE-DRILL HOLES FOR
MOUNTING THE CORE/MANAGER**

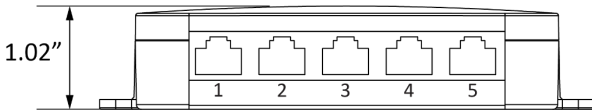
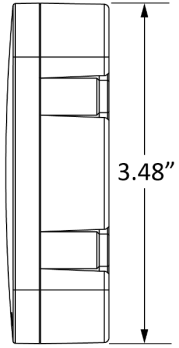
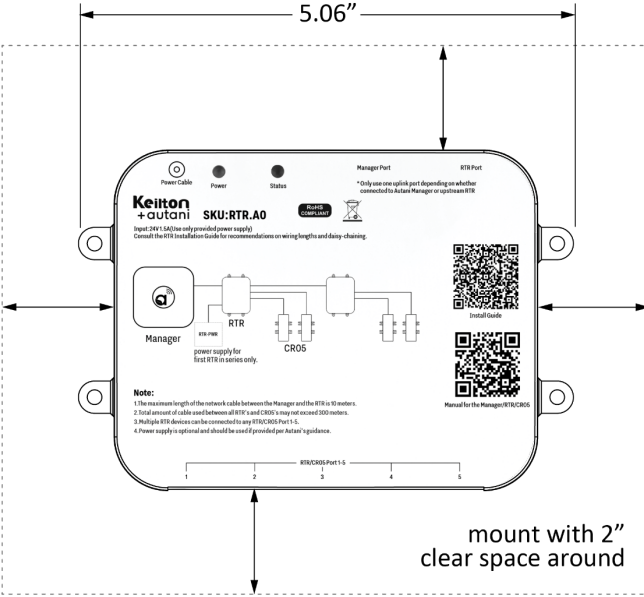
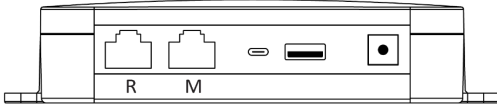


2.1.2. RTR Dimensions & Connections

NOTE: Power supply for the RTR is optional, and should only be used if provided with your order at Autani's direction

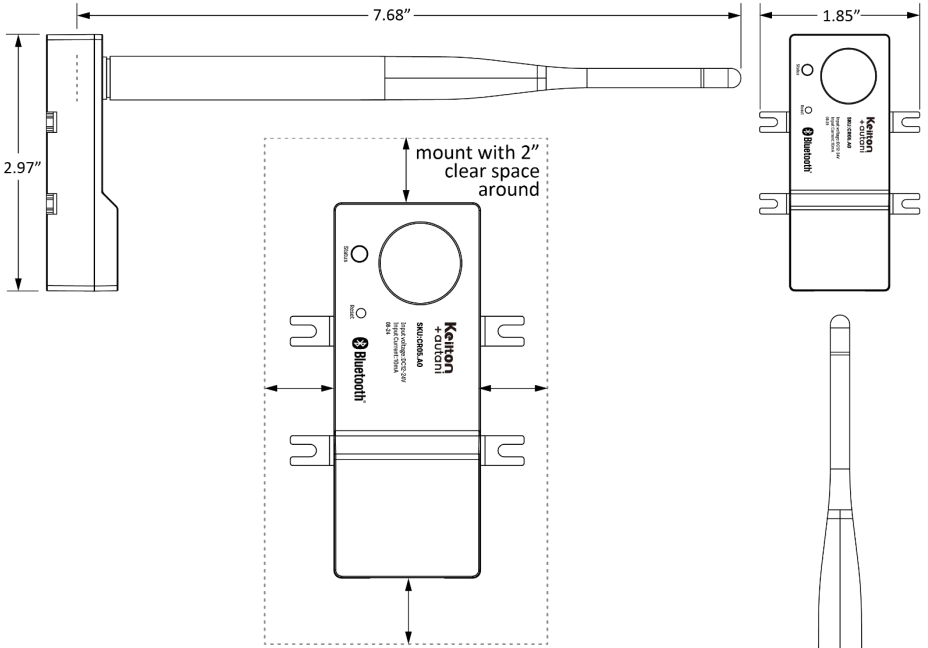


2.1.2.1. RTR Dimensions



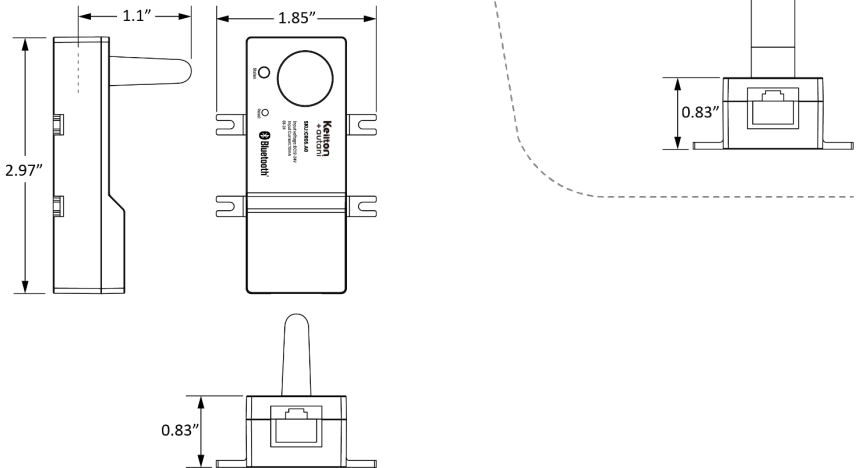
2.1.3. CR05

Option-01 Antenna



NOTE: It should not be attached to any metal duct work or studs.

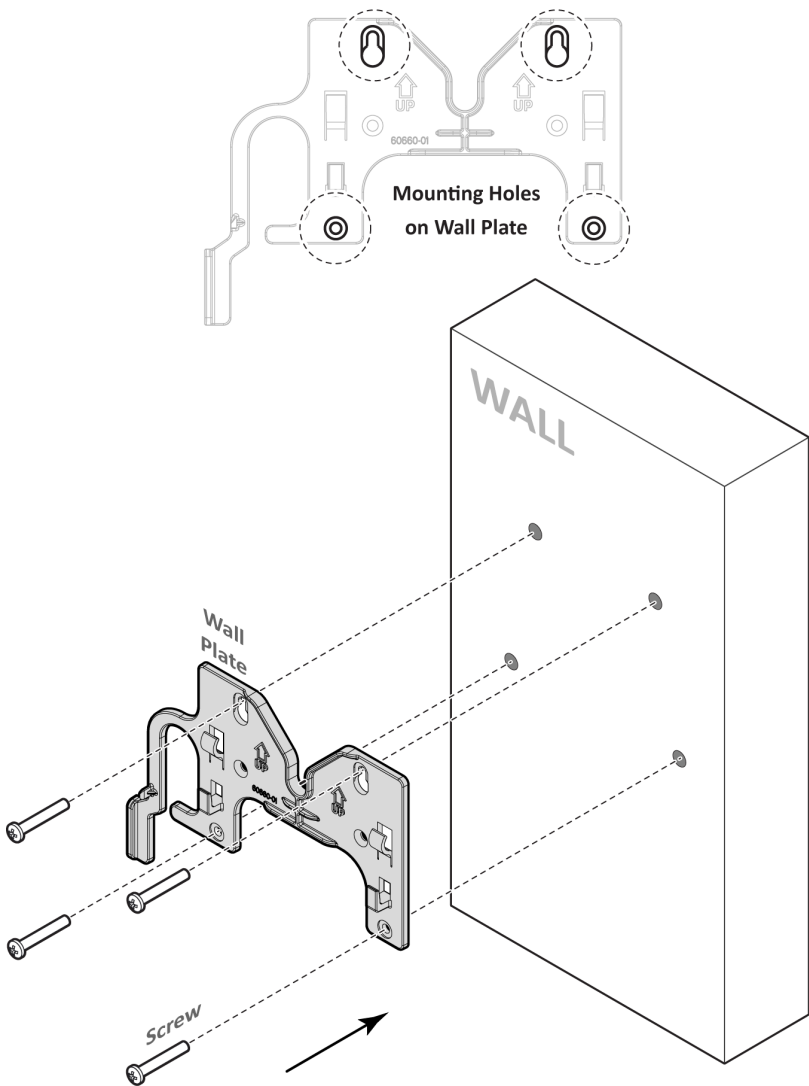
Option-02 Antenna



2.2. Mounting the Autani Manager onto a Wall

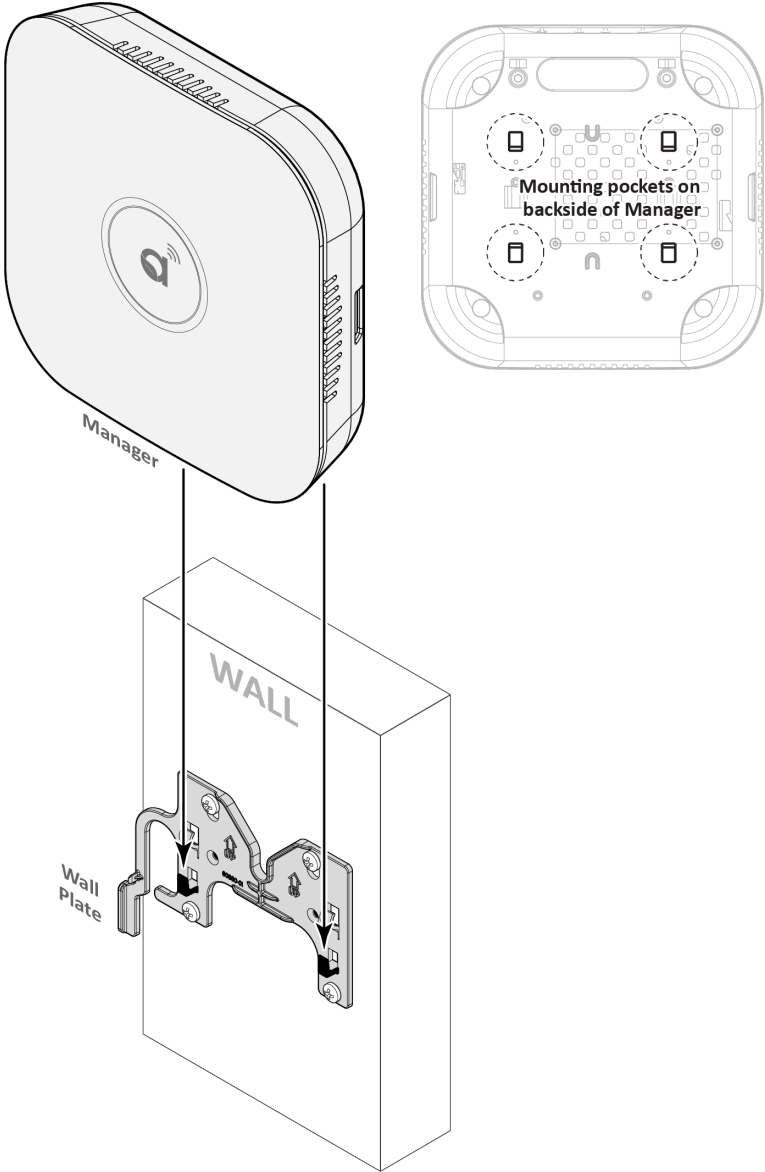
1. Position the wall plate on a wall and mark the four mounting holes. Remove the wall plate and pre-drill the mounting holes.
2. Insert wall anchors into the mounting holes, and position the wall plate to align with the mounting holes.
3. Insert the screws through the wall plate into the mounting holes. Tighten the screws.

Step - A



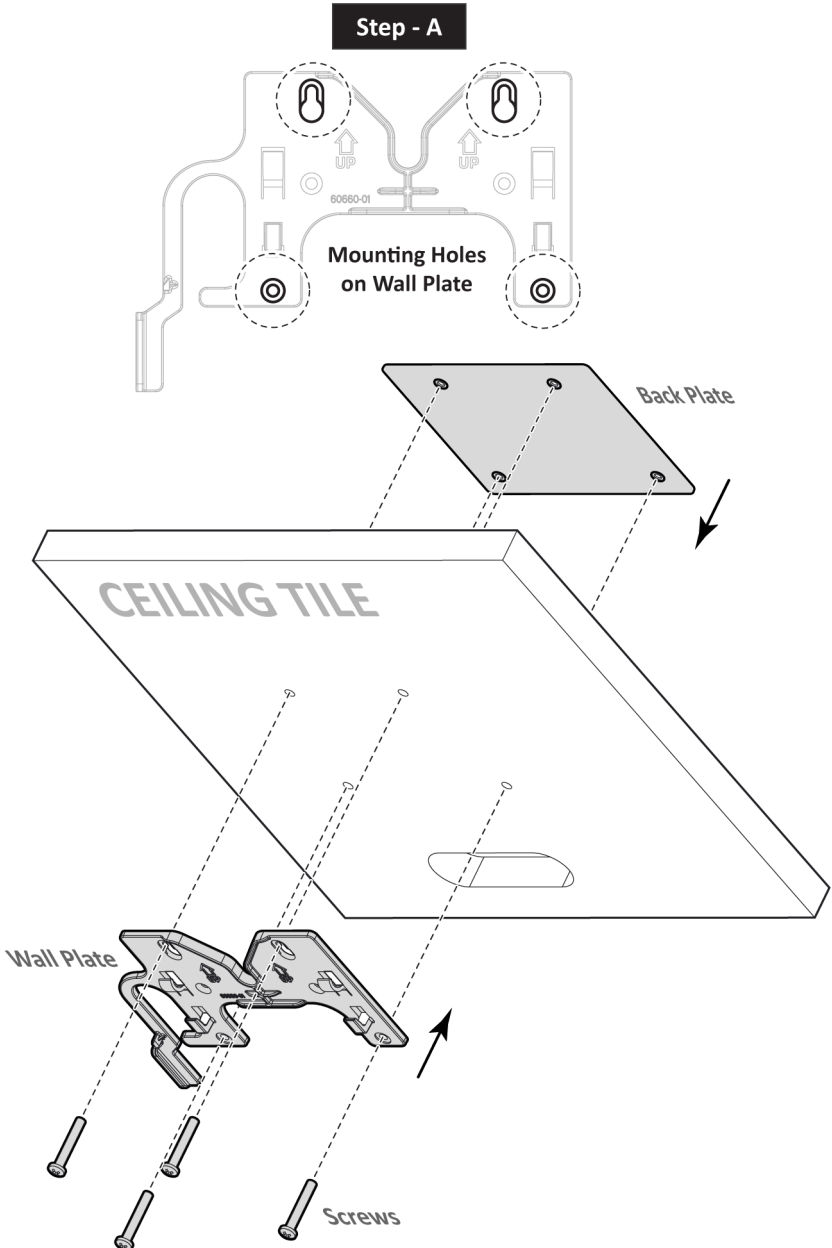
4. Insert the Autani Manager into the groove on the wall plate. It will snap into place.

Step - B



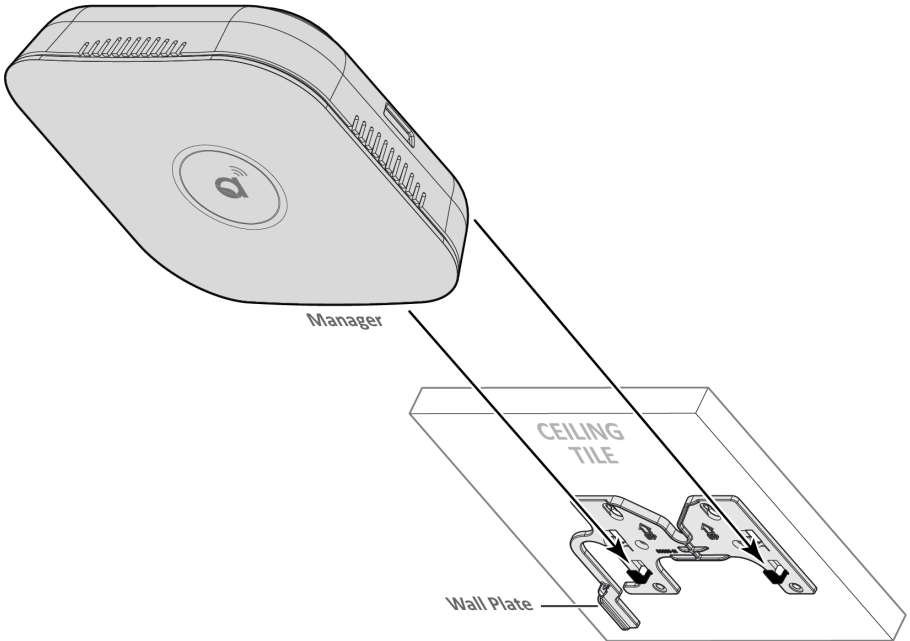
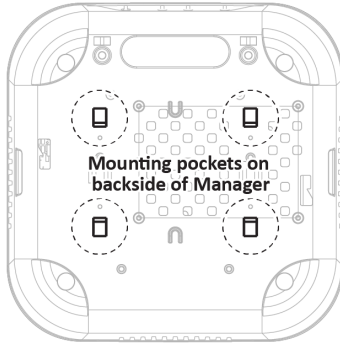
2.3. Mounting the Autani Manager onto a Ceiling

1. Position the wall plate on a ceiling tile and mark the four mounting holes. Remove wall plate and pre-drill the mounting holes.
2. Position the wall plate on front of ceiling tile and back plate on back of ceiling tile, aligning the mounting holes.
3. Insert the screws through the wall plate, ceiling tile, and back plate. Tighten the screws.



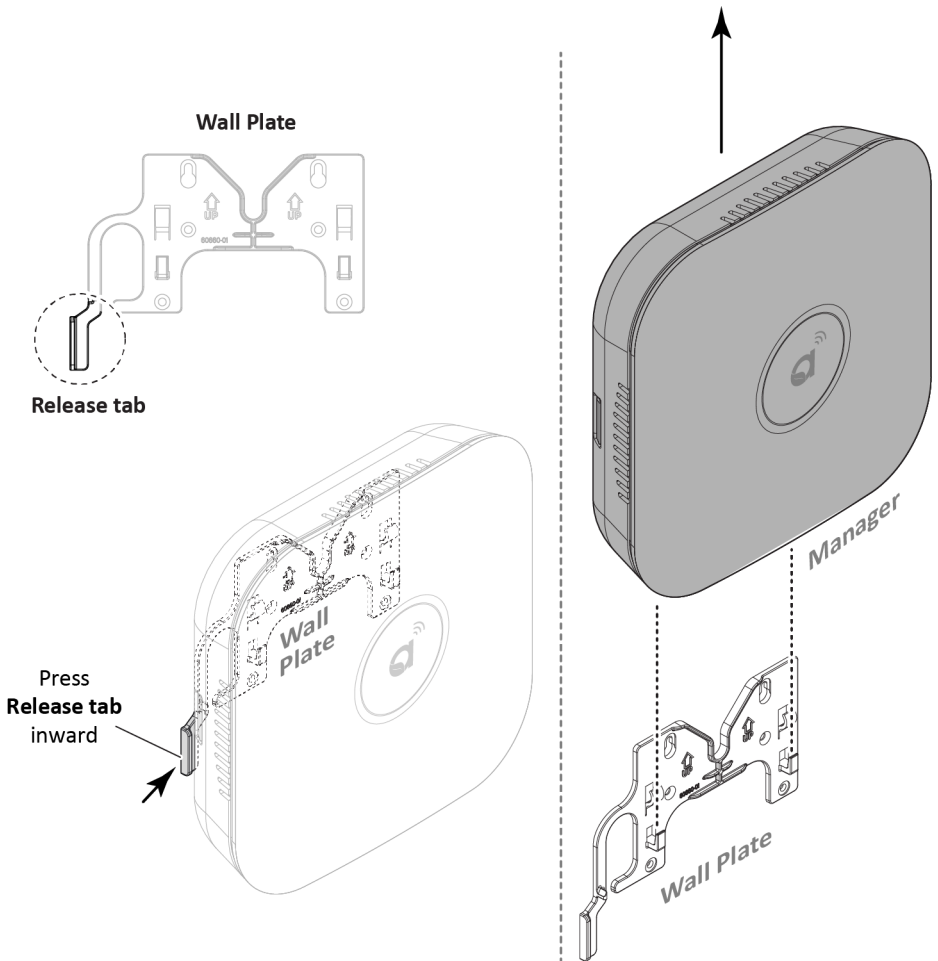
4. Insert the Autani Manager into the groove on the wall plate. It will snap into place.

Step - B



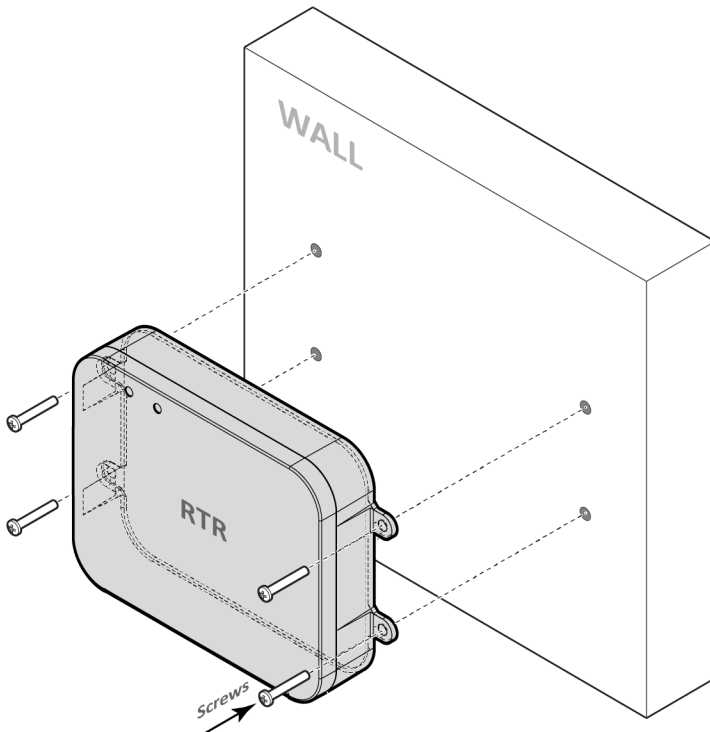
2.4. Removing the Autani Manager from Wall Plate

1. To remove the Autani Manager from the wall plate, press the release tab inward on the wall plate, and then slide the Autani Manager up.



2.5. Mounting the RTR onto a Wall

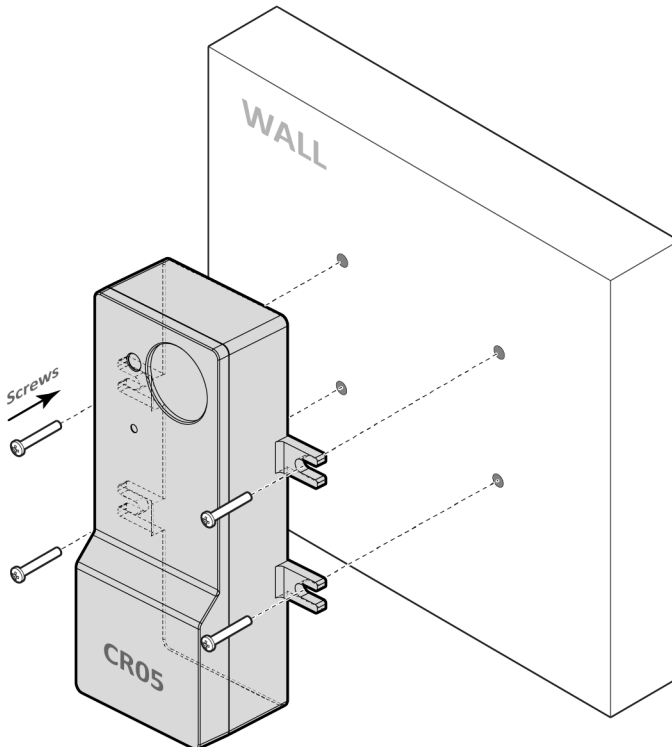
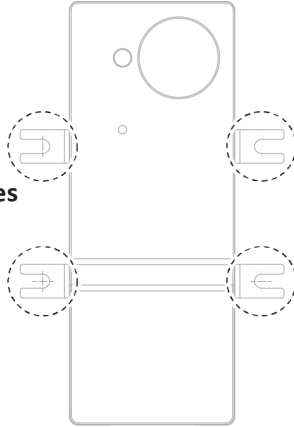
1. Position the RTR on a wall and mark the four mounting holes. Remove the RTR and pre-drill the mounting holes.
2. Insert wall anchors into the mounting holes and position the RTR to align with the mounting holes.
3. Insert the screws through the RTR into the mounting holes. Tighten the screws.



2.6. Mounting the CR05 onto a Wall

1. Position the CR05 on a wall and mark the four mounting holes. Remove the CR05 and pre-drill the mounting holes.
2. Insert wall anchors into the mounting holes and position the CR05 to align with the mounting holes.
3. Insert the screws through the CR05 into the mounting holes. Tighten the screws.

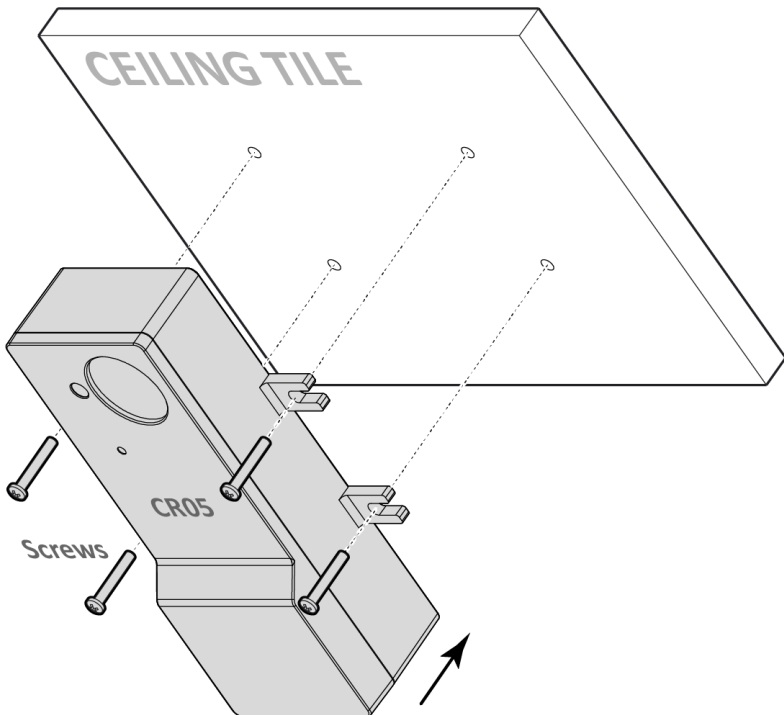
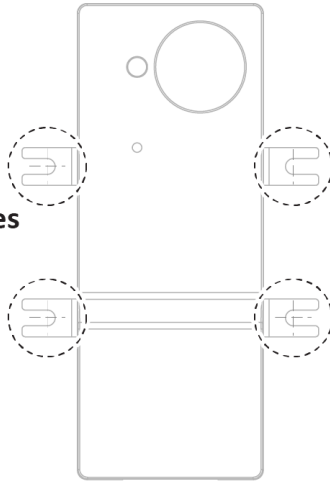
**Mounting Holes
on CR05**



2.7. Mounting the CR05 onto a Ceiling

1. Position the CR05 on a ceiling tile and mark the four mounting holes. Remove CR05 and pre-drill the mounting holes.
2. Position the CR05 on front of ceiling, aligning the mounting holes.
3. Insert the screws through the CR05 into the mounting holes. Tighten the screws.

**Mounting Holes
on CR05**

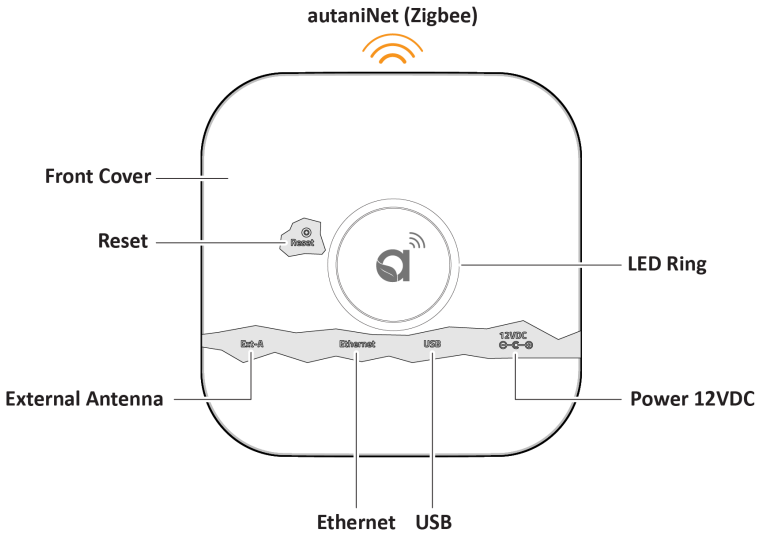


3. Hardware Connections

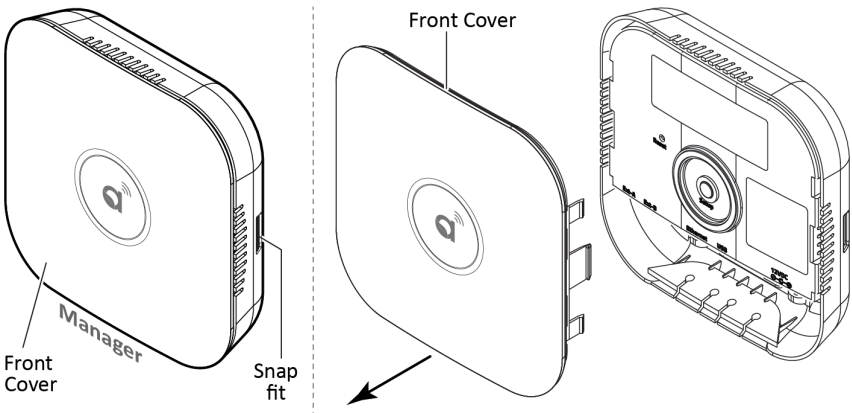
3.1. Autani Manager



- The Autani Manager must be installed and used in accordance with appropriate electrical codes and regulations.
- Installation by a qualified electrician is recommended.



1. Remove the front cover from the Autani Manager to make connections. Press the snap-fit on both sides of the Autani Manager to remove the cover.



3.2. Connection to a Power Source

1. Connect a power source to the Autani Manager. There are two options: direct power and POE.

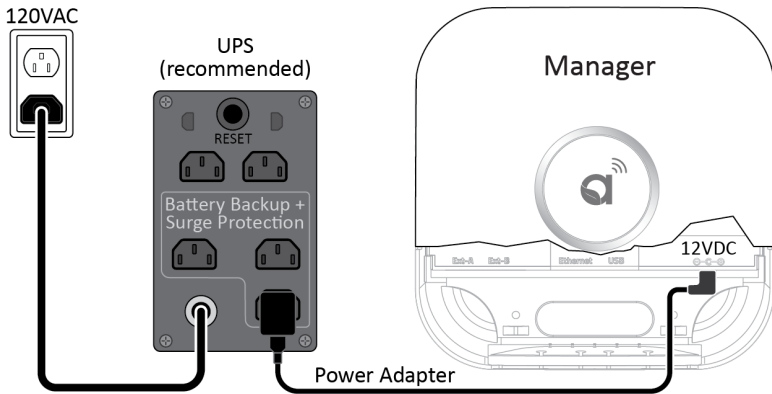


Surge and Battery Protection Recommended.

NOTE: The Autani Manager will power ON the moment power is supplied. In cases where this is not desired, it is recommended to do a safe power-down. Press and release RESET button and wait around 15 seconds until the LED ring goes dark. For more information on the status of LED ring, refer to section 4.1. *LED Ring Status*.

DIRECT POWER

Connect the provided AC/DC power adapter or similar device to the 12VDC port. **NOTE:** It is recommended to install the Autani Manager with a UPS (Uninterrupted Power Supply) near a grounded, 120VAC wall outlet.

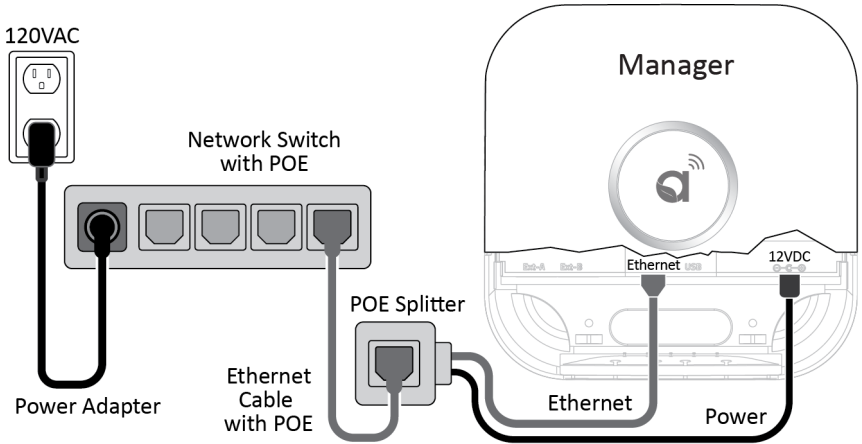


POWER OVER ETHERNET (POE)

The Autani Manager can be powered using a network switch, POE injector, and an Autani sourced POE splitter. Below are two examples illustrating the connection options with the POE method.

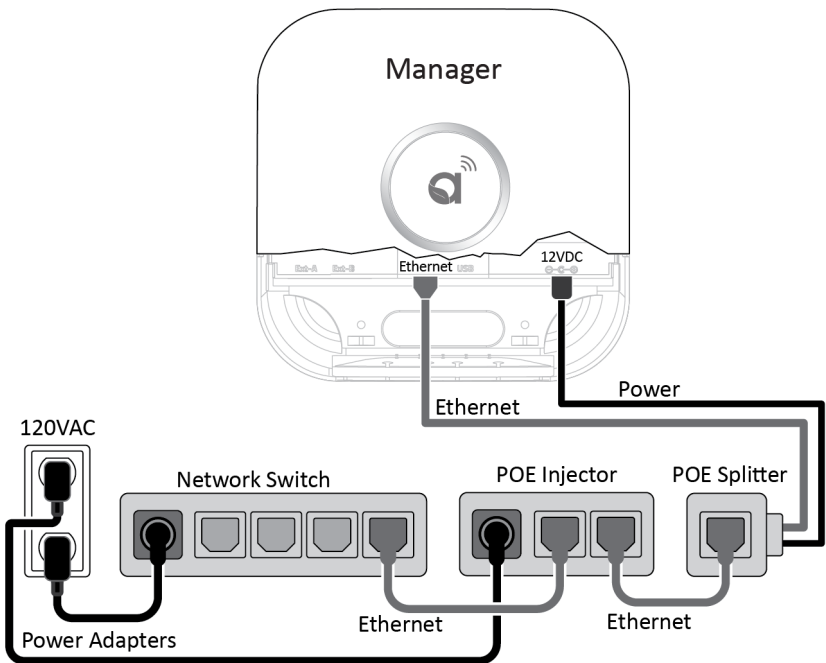
Example 1 :

120VAC wall outlet → Network Switch with POE → POE Splitter → Manager 12VDC port + Ethernet



Example 2 :

120VAC wall outlet → Network Switch → POE Injector → POE Splitter → Manager 12VDC port + Ethernet

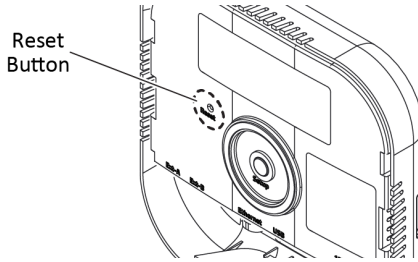


NOTE: Using the POE method eliminates the need for an AC outlet near the Autani Manager and is used in place of the provided AC/DC power adapter.

3.3. Connecting Autani Manager to RTR & CR05

1. Before initiating the connection, shutdown the Autani manager by pressing the Reset button once. Wait 15 seconds for the red spinning to go dark.

NOTE: Pressing the reset button will turn on the Manager if it was already off. In this case, a second press (after it's fully started) will shut it down.

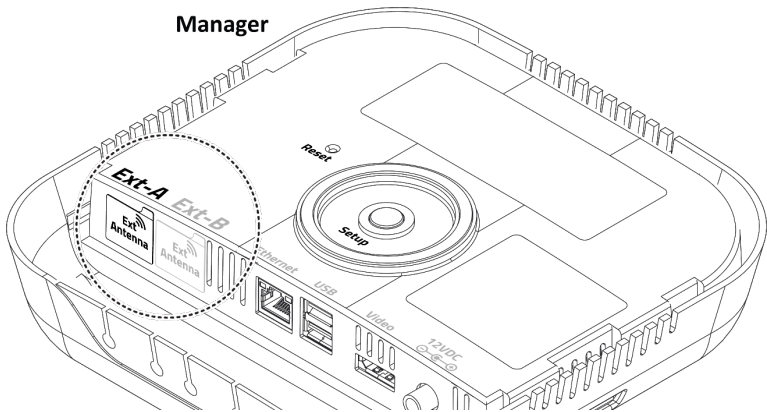


Shutdown Phase:

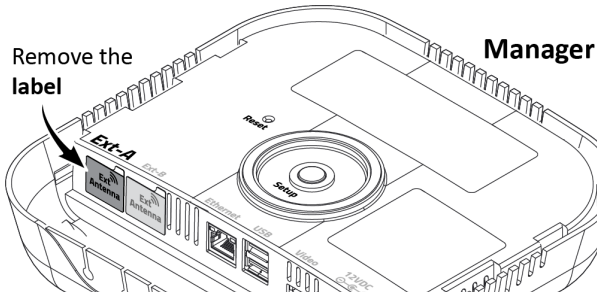
The LED ring will spin RED counterclockwise (takes ~15 seconds).



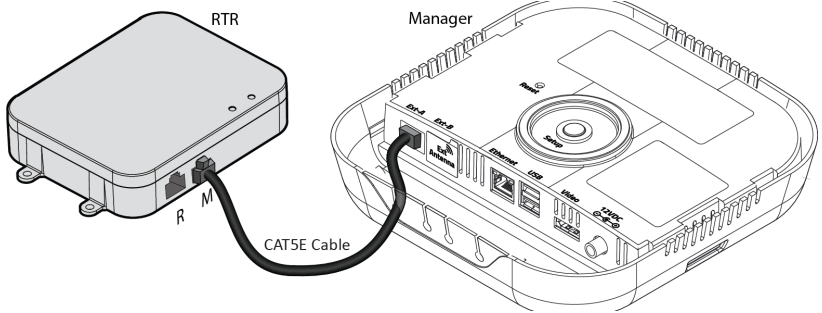
2. The Autani Manager has two ports labeled for external antennas. The leftmost port, EXT-A, is for connection of either a RTR or an External Zigbee antenna. The EXT-B port should not be used.



- i. To connect the RTR, remove the label on the Autani Manager EXT-A port.

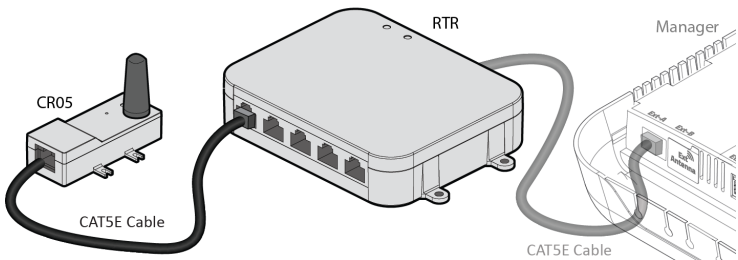


- ii. Connect one end of the CAT5E cable to RTR, and the other end of CAT5E cable to EXT-A port of Autani Manager. (**NOTE:** Connection at downstream RTR is always on the "back" edge.)

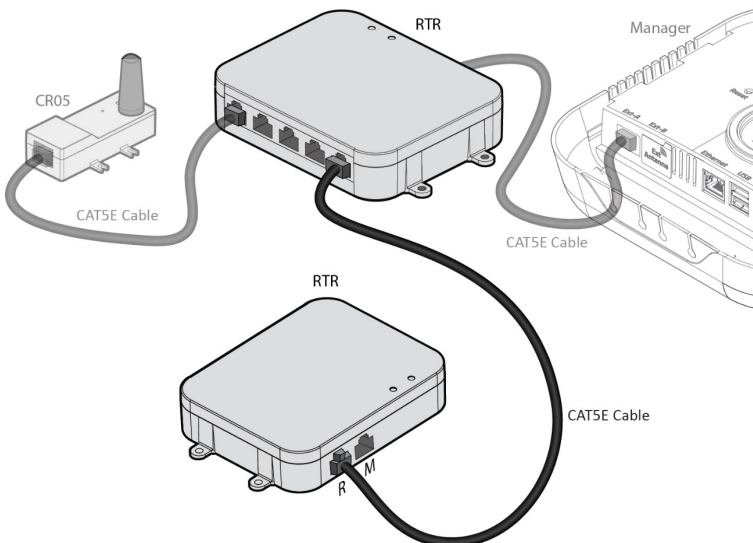


NOTE: Do not exceed 50 feet of distance between the RTR and Autani Manager when connecting them via a CAT5E cable.

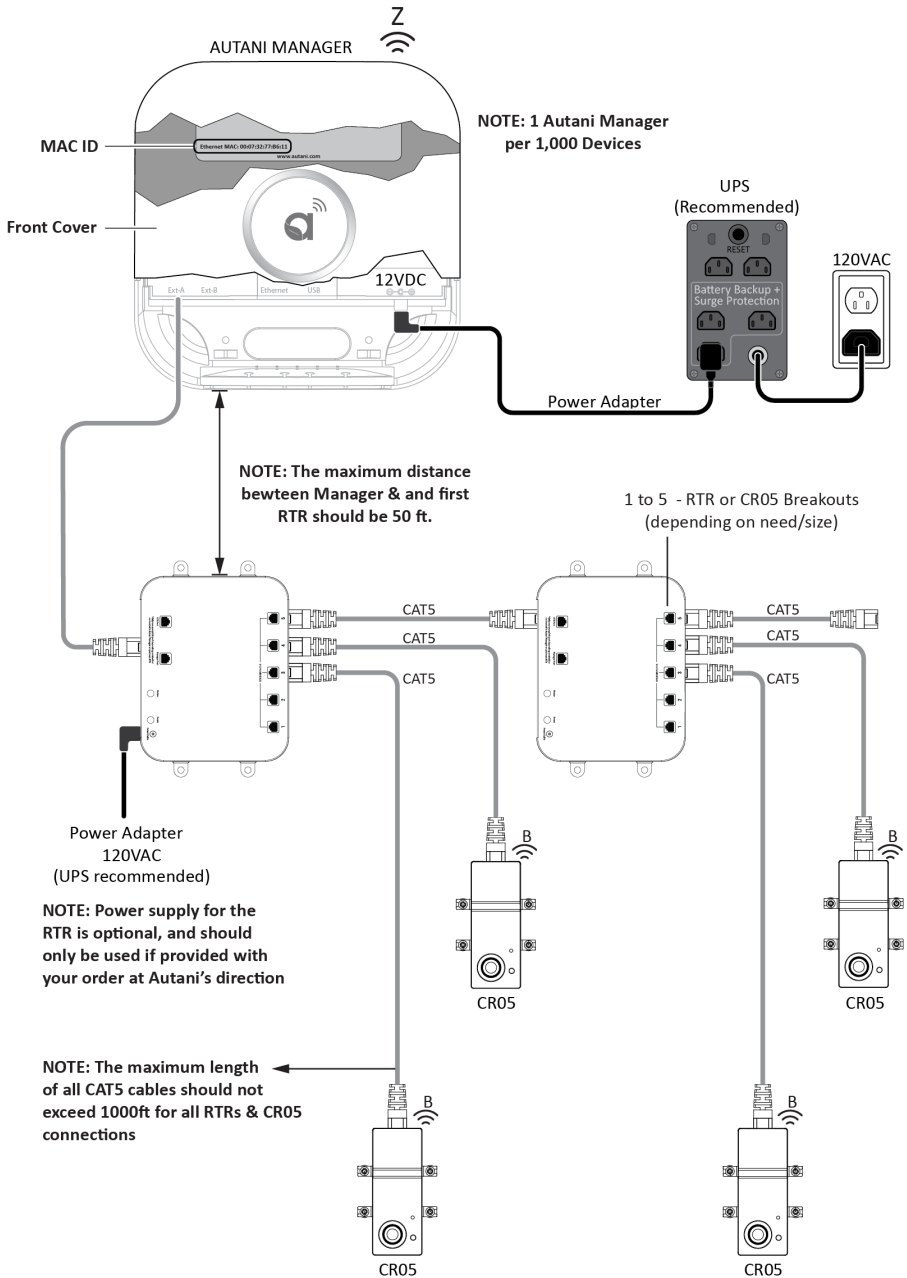
- iii. The CR05 is always connected to RTR using CAT5E cable, as shown in the below illustration. (**NOTE:** There are two types of antennas for the CR05. Refer to section 2.1.3 CR05).



- iv. The 'R' port of a downstream RTR connects to any of the numbered front ports of an upstream RTR.



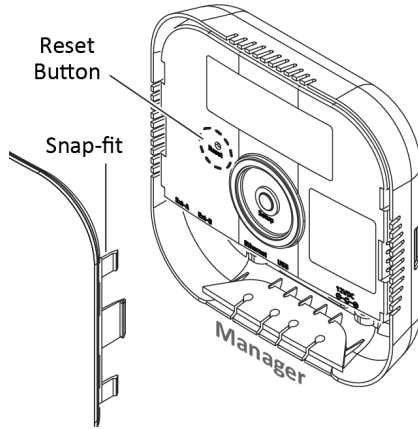
v. The complete connection should look like the below illustration.



NOTE:

- 1 CR05 per Zone (~ 100 devices)
- Bluetooth network per CR05 may not exceed a radius of 100ft
- Bluetooth network per CR05 may not exceed 4 hops wireless mesh

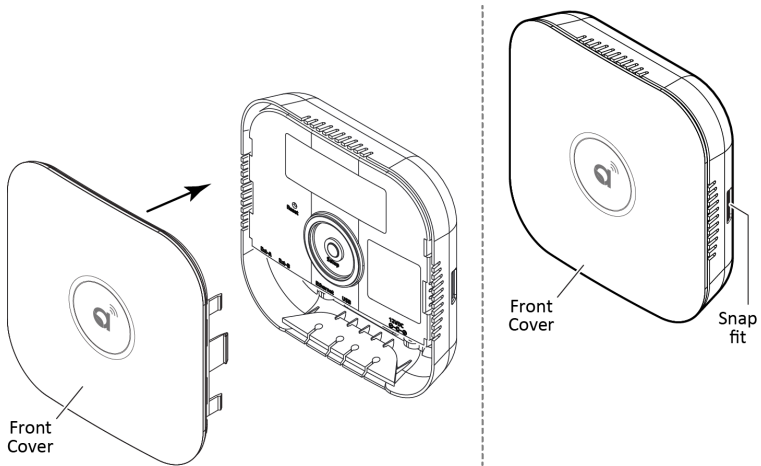
- vi. Once the RTR and CR05 are connected, press the reset button to start the Autani Manager.



- vii. **Startup Phase:** The LED ring will start spinning GREEN clockwise when power is applied.



- 3. After all the connections are made, install the front cover on the Autani Manager. Press lightly on both sides of the cover to allow the snap-fit pieces to insert into the Autani Manager base.



4. Verifying Power and Connectivity of Autani Manager

4.1. LED Ring Status

1. Ensure all the connections are made before commissioning the Autani Manager (as explained in the previous section).
2. The LED ring will confirm by displaying a green breathing pattern. The below illustrations describe what each color pattern on the LED ring indicates.

- **Power-up Phase:** The LED ring will start spinning GREEN clockwise when power is applied.



- **Breathe Green:** Limited to the first 2 minutes after successful start-up.



- **Network Issue:** If a network issue is detected at start-up, it will be indicated for up to 5 minutes. There are three distinct indications of a possible network issue.

No LAN Connection: The LED ring will show one-quarter WHITE.



No WAN Connection: The LED ring will show one-half WHITE.



No Remote Connection: The LED ring will show three-quarters WHITE.



- The LED ring goes dark 2 minutes after successful boot or up to 5 minutes after boot with network issues.



- **System Error:** The LED ring will flash RED.

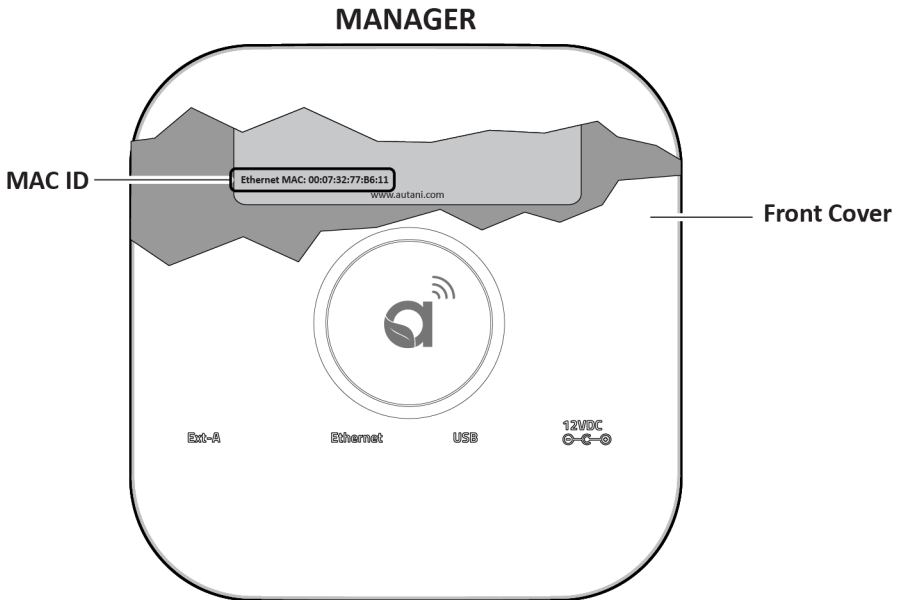


- **Shutdown Process:** The LED ring will spin RED counterclockwise (takes ~15 seconds).



4.2. Autani Manager MAC Address Location

After remote access has been verified, note the Ethernet MAC for the Autani Manager and install location.



4.3. Reset Button Functionality

The Reset button on the Autani Manager is a power switch located inside the Autani Manager. The reset button can be used in the following situations.

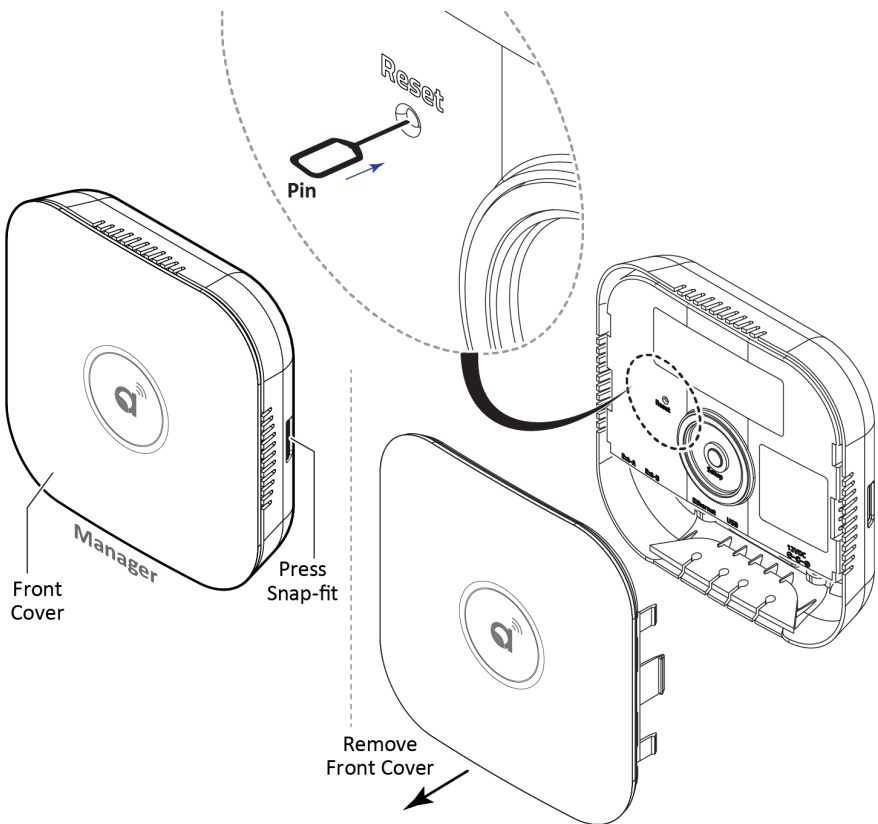
- When the network connection method to the Autani Manager is changed, the Autani Manager should be completely shut down and rebooted using the Reset button.
- When the system is locked or unresponsive.
- When the Autani Manager is physically relocated.

Remove the front cover on the Autani Manager to use the Reset button. The Reset button is actuated through the hole using a straightened paperclip or similar object.

- In most cases, a short-press will trigger the OS activity to shut down the Autani Manager if it is ON.
- A short-press will cause a “powered but turned-off” Autani Manager to start. This operation is in lieu of disconnecting and reconnecting the power source to cause an automatic start.

Unique/Special Operation

- A long-press will force the Autani Manager to turn OFF. This is not a recommended operation unless the device fails to respond to a short-press after 60 seconds and should be used in lieu of disconnecting power to force a shut down.



5. Hand-Off

5.1. Commissioning your Devices

1. If your lights have already been commissioned before installing the Manager/RTR/CR05, proceed with adding the CR05s to the commissioned Zones. (Refer to section 5.2. Adding CR05 to a Zone in the Keilton+autani Application.)
2. If your lights have not been commissioned yet, please proceed with downloading the Keilton+autani Application from the following link or QR code.

Link: <https://apps.apple.com/cn/app/keilton/id1423982372>

QR Code for the App:



Keilton iOS

Ensure that you join a CR05 to each Zone you commission in the app. For assistance with commissioning in the Keilton+autani application, please refer to the Keilton Network Lighting Control App Instruction Manual.

Link: <https://keilton.s3.amazonaws.com/Keilton+App+Instruction.pdf>

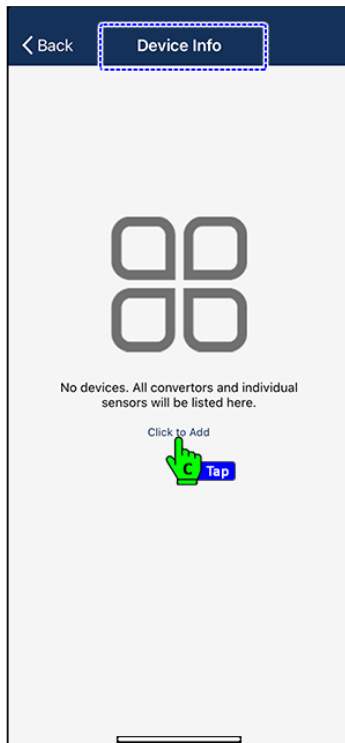
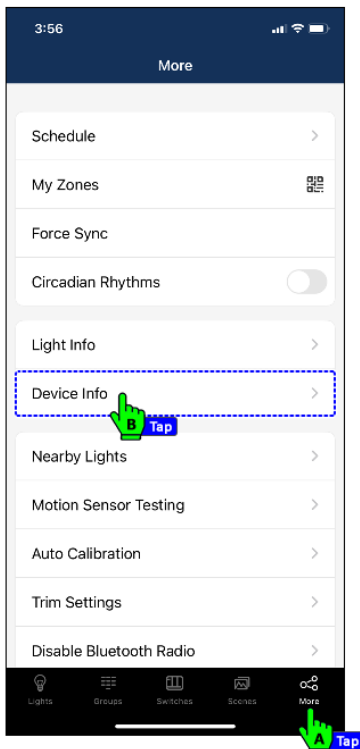
QR Code for the Manual:



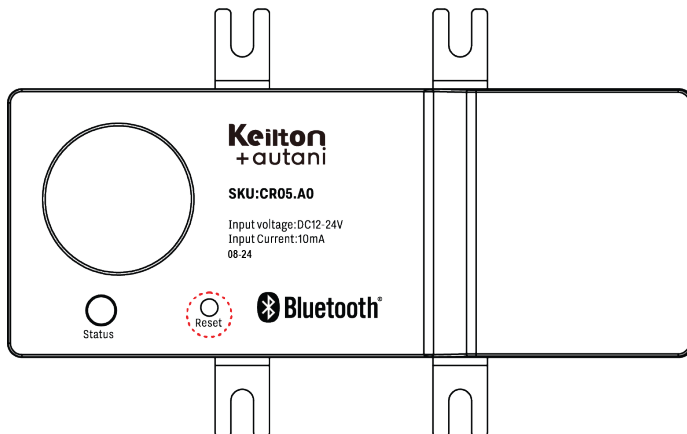
5.2. Adding CR05 to a Zone in the Keilton+autani Application

After the Autani Manager/RTR/CR05 has been installed and powered ON, proceed with adding each CR05 to a Keilton+autani Zone.

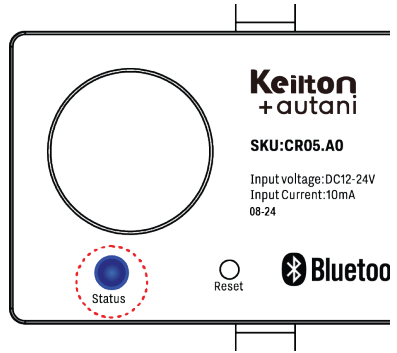
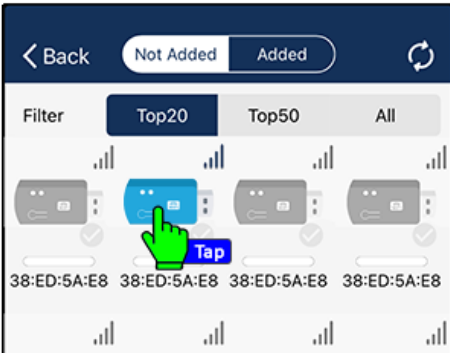
1. At the bottom of the application, select the "More" menu and then, "Device Info.". Click the "Click to Add" link, and the system will now search for nearby CR05s.



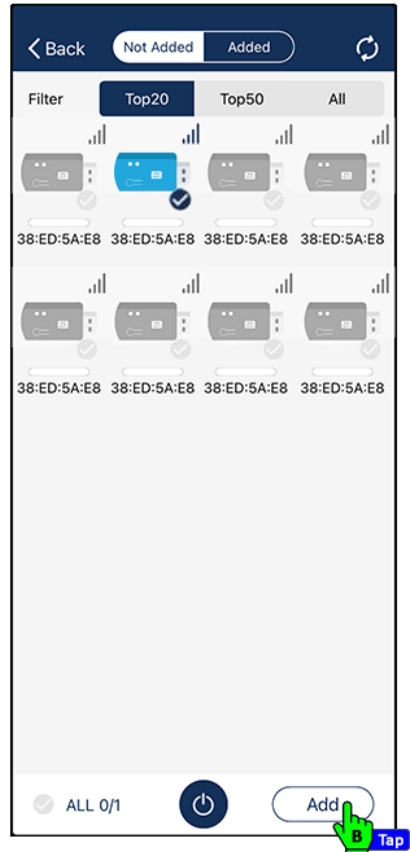
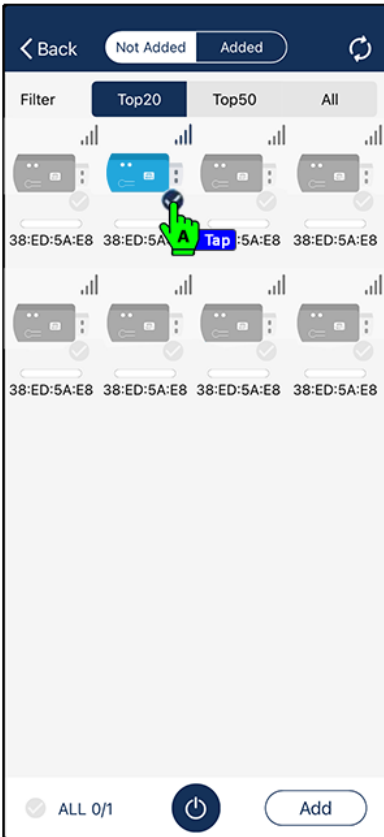
2. If a CR05 is not listed within 2 minutes of waiting, please press the reset button on the CR05 (requires a paper clip).



- If multiple CR05 are populating, you may tap a CR05 on the selection screen to flash the blue LED on the CR05 to ensure you are adding the correct/nearest CR05 to the Zone.



- Once the correct CR05 is identified, tap the grayed out check mark on it. The check mark will turn dark blue. Then hit the "Add" button at the bottom to join the CR05 to the Zone. A Zone may only have one CR05 in it.



5.3. Upgrading to EnergyCenter® and accessing your Autani Manager

After you have commissioned all your Zones under the Keilton+autani application and have ensured that a CR05 has been added to each Zone, your lighting system will be ready to upgrade to EnergyCenter®.

5.3.1. Upgrade to EnergyCenter®

When your system is ready to be upgraded, please contact support@autani.com and provide the Autani Manager's Ethernet MAC you recorded in step 4.2. Autani Manager MAC Address Location.

5.3.2. Accessing EnergyCenter® through your Autani Manager

1. Access your system via its local IP address using the default credential admin/password.
2. Register for an account at portal.autani.net, then contact support@autani.com to provide your registered email address and Ethernet MAC of the Autani Manager recorded in step 4.2. Autani Manager MAC Address Location.



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