

Green Mini Bollard Installation Instructions

Installation Instruction Topics:

- Installing on Concrete Pad
- Unlocking / Locking Mini Bollard
- Cord Grip Installation
- Mounting Cisco AP
- Mounting Aruba AP
- Mounting Antennas

Figure 1.

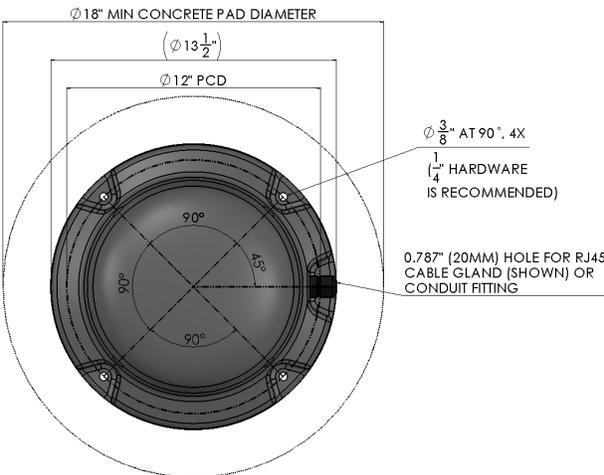
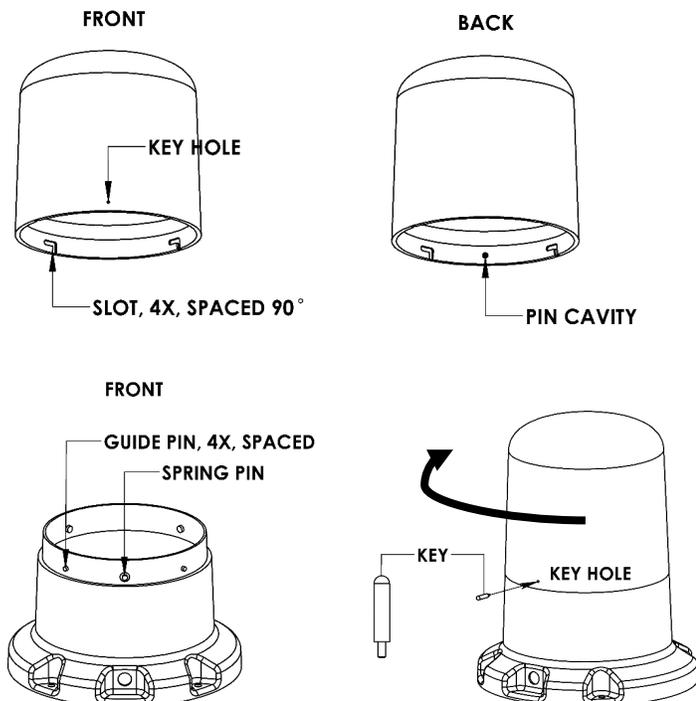


Figure 2.



Installing on Concrete Pad

1. The Mini Bollard can be mounted onto a concrete pad or directly on the ground. The base of the bollard has QTY (4) $\frac{3}{8}$ " diameter holes to mount the bollard using studs, bolts, or stakes (for ground use).
2. If mounting onto a concrete pad, prepare a level concrete pad with a minimum diameter of 18", and concrete pad depth to meet local codes and best practices.
3. Locate the approximate center of the concrete pad and mark the QTY (4) mounting points shown in Figure 1. $\frac{1}{4}$ " diameter concrete hardware is recommended to allow for flexibility in the alignment when using fasteners on the concrete pads. See Figure 1.
4. If electrical conduit will be installed into the concrete base, it is recommended that you use a licensed electrician or contractor who will install in compliance with National Electrical Code (NEC) and local code. NOTE: a concrete base greater than 18" in diameter may be needed as cables will enter through the side of bollard.

Unlocking/Locking Mini Bollard

Green Mini Bollards have a hidden lock mechanism integrated into the base. Inside the rim of the cap, there are QTY 4 slots spaced 90°, and a keyhole and pin cavity. The base of the bollard has QTY 4 guide pins spaced 90° along with a spring pin mechanism to lock.

1. Insert the key tool included with the bollard into the keyhole on the front of the locked bollard. This will depress the spring pin, pushing it out of the pin cavity, and allow you to twist the cap clockwise in the horizontal portions of the slots.
2. Twist the cap clockwise until the cap no longer rotates and lift it off the base.
3. To reinstall the cap, push in the spring pin and align the vertical portions of the cap slots with the base's guide pins as you slide the cap onto the base. Rotate counterclockwise until spring pin clicks into the lock position.

Green Mini Bollard Installation Instructions

Figure 4.

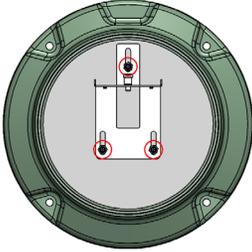


Figure 5.

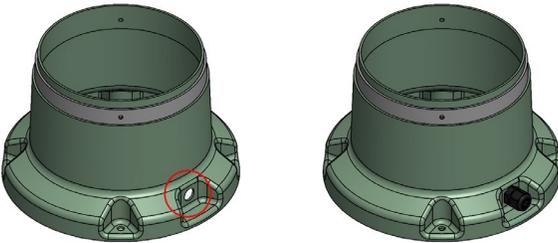


Figure 6.

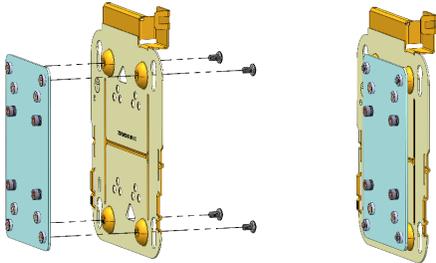


Figure 7.

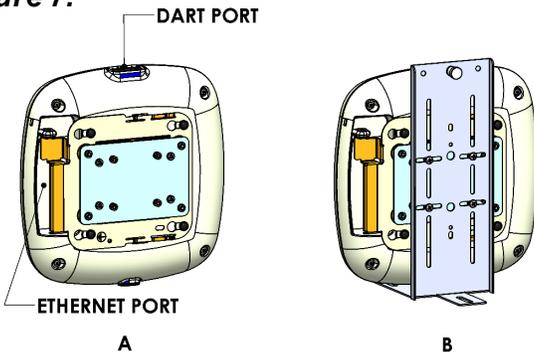
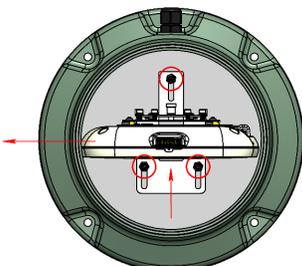


Figure 8.



Cord Grip Installation

1. Inside the lower half of the bollard, loosen the QTY (3) hex nuts securing the metal upright to the metal base, as shown in Figure 4. Remove the metal upright.
2. Install the included RJ45 cable gland with ethernet cord to the entry hole located in the side of the bollard base. See Figure 5.

Mounting Cisco Access Points

Using the DART Connector

1. Attach the standard Cisco low profile bracket (included with Cisco AP) to the adapter plate using QTY (4) screws. See Figure 6. Additionally, the hole pattern for the Cisco universal bracket is included in the adapter plate.
2. When using the DART connector, rotate the adapter plate 90° so the DART port is oriented at 12 o'clock. Mount the adapter plate on the set of horizontal slots of the metal upright using QTY (4) screws, but do not completely tighten. Plug in the ethernet cord in the AP and slide the AP into the Cisco bracket.
3. Place the upright into the base of the Mini Bollard and position so that the AP is centered. Slide the access point left as far as it will go. Remove the and tighten the screws on the adapter plate. Replace the upright back into the base and slide it back toward the cable gland. Fasten the QTY (3) locknuts to secure the upright in place using a socket wrench with a 7/16" socket and a socket extension. See Figure 8.
4. Proceed to the section for the desired antenna configuration.

Green Mini Bollard Installation Instructions

Figure 9.

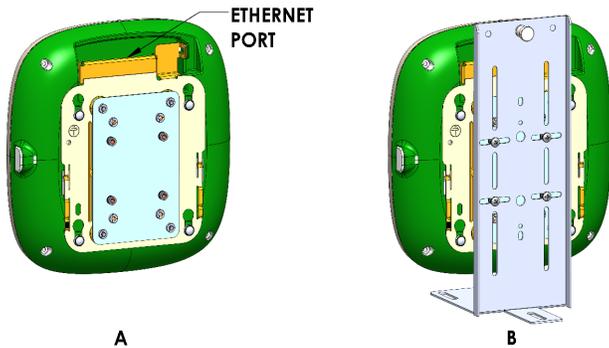


Figure 10.

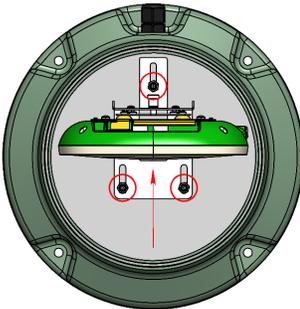


Figure 11.

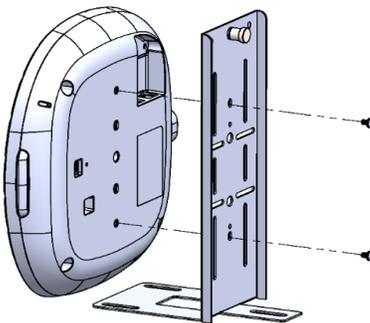
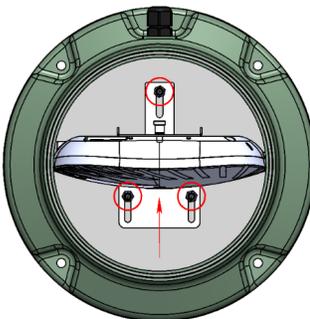


Figure 12.



Using RF Ports on the AP

1. Attach the standard Cisco bracket (included with Cisco AP) to the adapter plate using QTY (4) screws. See Figure 6.
2. The adapter plate mounts so that the ethernet ports are oriented at 12 o'clock. Plug the ethernet cord into the AP. Slide the AP into the Cisco bracket that is mounted on the adapter plate, as shown in Figure 9A.
3. Hold the adapter plate against the main upright and align the standoffs in the adapter plate with the slots. Move the AP on the bracket to the lowest point it can go and fasten QTY(4) screws. If the horizontal slots are the closest viable location, center the AP. See Figure 9B.
4. Place the upright into the base of the mini bollard. Slide the entire upright toward the cable gland as far back as the AP can go, as shown in Figure 8. Using socket wrench with a 7/16" socket and socket extension, fasten the QTY (3) locknuts to secure the upright in place. See Figure 10
5. Proceed to the section for the desired antenna configuration.

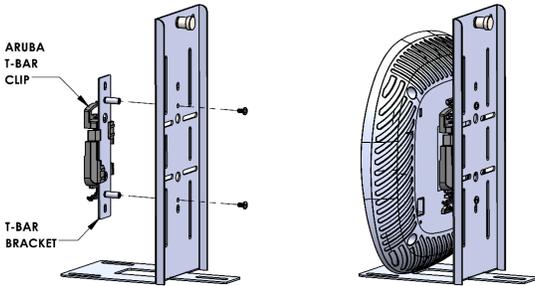
Mounting Aruba Access Points

Aruba 5xx Series APs

1. Use QTY (2) M4 screws to mount Aruba 5xx Series APs (up to the size of AP-534) to a hole pattern in the upright. Attach the AP to the bracket using the screws. Reuse the screws that were provided with the AP that attached the stock mounting bracket or use the provided M4 screws included with the bollard. See Figure 11.
2. Plug in the ethernet cord. Place the upright into the base of the mini bollard. Slide the entire upright towards the cable gland as far back as it can go. Use a socket wrench with a 7/16" socket and socket extension to fasten the QTY (3) locknuts to secure the upright in place. See Figure 12.

Green Mini Bollard Installation Instructions

Figure 13.



Aruba 3xx Series APs

1. Aruba APs up to the size of AP-334 mount using Aruba's plastic T-bar clip. Attach the T-bar bracket to the main upright using QTY #6 (2) provided screws. Twist the AP onto the plastic T-bar clip and plug in the ethernet cable. See Figure 13.
2. Place the upright into the base of the mini bollard. Slide the entire upright towards the cable gland as far back as it can go. Using socket wrench with a 7/16" socket and socket extension, fasten the QTY (3) locknuts to secure the upright in place. See Figure 14.
3. Proceed to the section for the desired antenna configuration.

Figure 14.

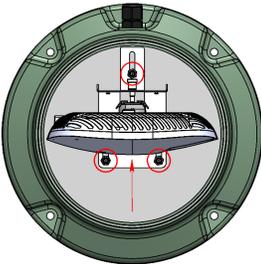
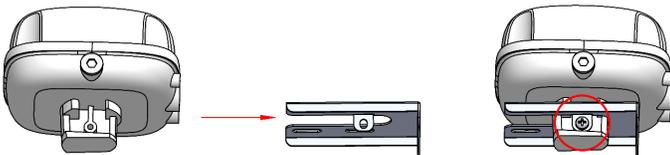


Figure 15.



Mounting Aruba AP-365 Access Point

1. The AP-365 slides onto the omni antenna bracket and the threaded hole in the base of the AP-365 lines up with the hole in the bent tab of the bracket. Secure AP using the provided M6 screw. Plug in the ethernet cable.
2. Place the upright into the base of the mini bollard. Slide the entire upright so the studs are against the front of the slots. Using socket wrench with a 7/16" socket attached to a socket extension, fasten the QTY (3) locknuts to secure the upright in place.
3. Attach the bracket to the upright by pulling the spring plunger out, line up the keyholes in the bracket with the pegs in the upright and slide into place. Release the plunger to lock bracket. See Figure 17.

Figure 16.

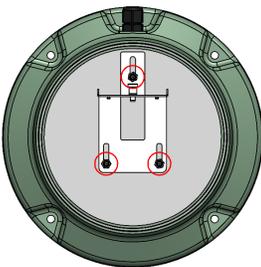
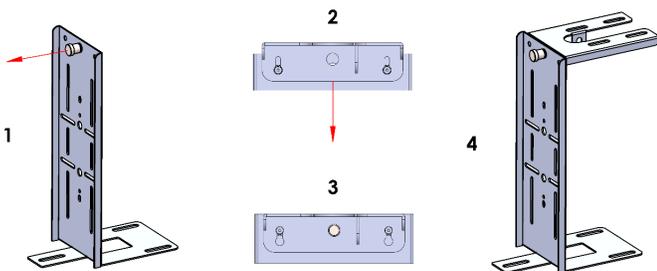


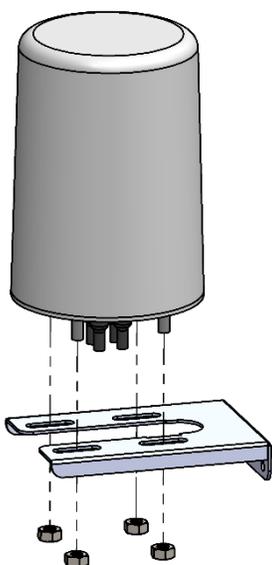
Figure 17.



Green Mini Bollard Installation Instructions

Mounting Antennas

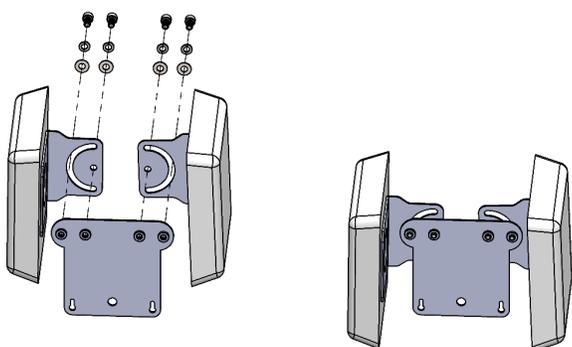
Figure 17.



Omni Antenna

1. Install the omni antenna onto the bracket with the QTY (4) nuts included with the antenna. Hand tighten.
2. Coil antenna cables or use cable ties as necessary to keep cable in a neat coil that can be tucked in front of the AP. Connect the antenna plugs to the AP.
3. Attach the bracket to the upright by pulling the spring plunger out, line up the keyholes in the bracket with the pegs in the upright and slide into place. Release the plunger to lock bracket. See Figure 17.
4. Loosen the antenna hex nuts and move antenna as close to the center of the bollard as possible. Retighten hex nuts. If the tab in the bracket interferes with your access point, bend it out of the way or cut off.

Figure 18.



Micro Patch Antenna

1. Remove the articulating brackets from the micro patch antenna(e). Attach the antenna to the micro patch antenna bracket reusing the screws from the articulating brackets. See Figure 18.
2. Plug the DART connector into the AP. Coil antenna cables or use cable ties as necessary to keep cable in a neat coil that can be tucked in front of the AP. Connect the antenna plugs to the DART connector.
3. Attach the bracket to the upright by pulling the spring plunger out, line up the keyholes in the bracket with the pegs in the upright and slide into place. Release the plunger to lock bracket. See Figure 17.
4. Adjust the angle of the antennas as needed.