Ventev's patented Handrail Wi-Fi Enclosure is designed to fit on the handrails of stadiums, arenas and other Large Public Venues (LPVs). This enclosure's design will house two (2) Cisco 3702e or 3802e Access Points and two antenna to fit flat against the center with each antenna pair facing in opposite directions.

Tools required: T27 Tamper Proof Screwdriver
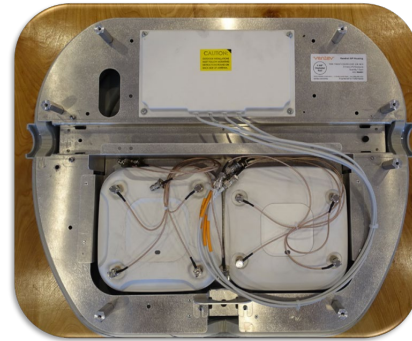
Step 1: The enclosure is shipped assembled. The metal support conduit that runs into the bottom of the enclosure is not supplied and must be the same diameter as the handrail. Remove the two screws with washers from each plastic shell to expose the metal mounting plate. Save the screws with washers for final assembly (only two per side are installed for shipping).

**Assembled Unit**

Metal Mounting Plate

Step 2: Loosen the 2 screws that hold each of the 3 railing brackets to the metal frame and slide the brackets off. Screws do not have to be removed and will make assembly easier if left in.

Railing Brackets Removed

Step 3: Mount the metal mounting plate to the railing. Slide railing brackets into position and tighten screws. The metal conduit entering the bottom of the enclosure will need to be bent so it enters perpendicular to the handrail if the rails are not horizontal. The Ethernet cables are typically run through the conduit, if not, the conduit is still required to keep the enclosure from spinning on the rail and a pipe flange can be used to secure to the steps.
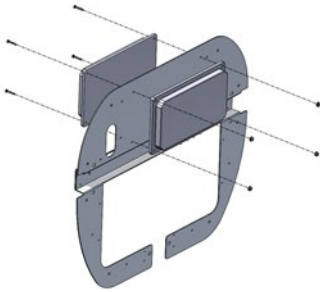
Metal Frame Mounted
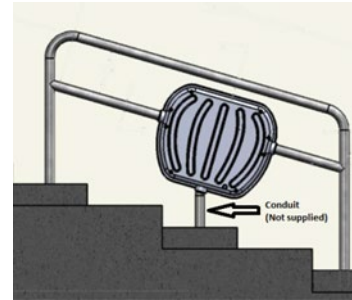
Conduit

Step 4: Install the antennas using the screws and nuts provided. Line up the holes in each corner of each antenna with the holes on the metal plate (Picture 4). Place the screw through one corner of the antenna, then the back plate and through the second antenna. Use supplied nuts to secure. Repeat for the 3 remaining corners. The antennas mount back-to-back, so they are pointing 180 degrees from each other. Run the Ethernet wires through the bottom conduit and connect the APs. Slide the AP's into place with the keyhole slots provided. Connect RF cables.
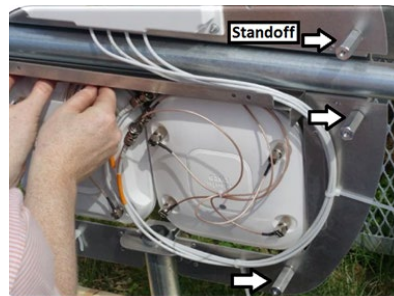
Ethernet Cable
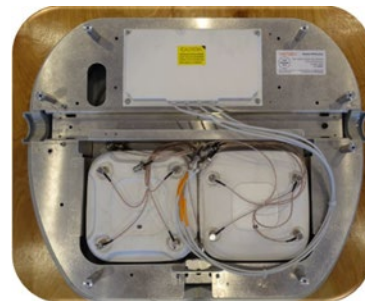
Cables

Step 5: The RF cables need to be routed inside the large aluminum standoffs so there is no interference with the wide weather seal located on each plastic shell.
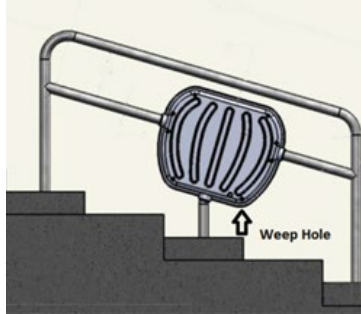
Picture 8: Wire Routing

Step 6: Locate the weep drain at the bottom of each shell. This must be located on the lowest corner when mounted. Attach the plastic shells to the metal frame using 8 screws and washers per side.

Weep Drain

Weep Hole

Plastic Shell Install

Step 7: To ensure NEMA4-rating, use supplied caulk to seal the gap between the enclosure and the handrail (both sides of enclosure and bottom rail). Do not get caulk on the flat grey foam seal as it will damage the seal when the enclosure is opened the next time. The caulk needs to be placed where the black band is shown in the picture below. Only caulk after equipment has been adjusted and tested and the enclosure will remain sealed.

Caulk

Step 8: A label is provided to mark the equipment side shell if desired to make maintenance easier.

Service Label