



Premium Retractor Pedestal Installation Manual	Topics Covered	Date Revised	Revision Number
	<ul style="list-style-type: none">▪ Pedestal Installation▪ Charger Mounting	10/17/2024	1

Equipment and Tools Needed:

- One (1) Pedestal Base Assembly (11.5" x 11.5" x 32.25")
- One (1) Retractor Assembly (10.0" x 2.56" x 95")
- One (1) mounting bracket (for single or dual) EVSE
- One (1) 3" x 6" Plastic End Cap
- Four (4) ¼-20 x ½" Machine Button Head Screws with two (2) nuts
- Two (2) ¾" NM Flex Right-Angle Connector
- Three (3) ¾" NM Flex Straight Thru Connector
- Fourteen (14) 10 – 32 x ½" Machine Button Head Screws with nuts
- Four (4) Drop-In Anchors
- Four (4) Stainless Anchor Bolts with Washers
- Four (4) 1" Conduit Hole Plugs
- Two (2) Liquid-tight flex conduit, ¾" X 12"
- One (1) Tube of Silicone with applicator tip
- Two (2) Rubber Spacer for Cable Clamps
- 22mm Wrench (ICE Dual 80A)
- Security Bits
- Phillips Screwdriver

Safety Precautions:

Whenever working on an EVSE or other electrical equipment safety is the number one priority, make sure that the charger is de-energized and safe to begin work on. If the work site requires it, ensure a second person is available as a safety observer until the work is complete.

Required Safety Equipment:

- Safety Boots
- Safety Gloves
- Safety Glasses

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1.) Site Installation

Installation height is regulated by NEC. NEC 2011 Specifies: Outdoor (NEC Article 625.30B) defines installation of an EV Charging Station as 24-48 inches above the grade (to any reach point). Use appropriate tools and hardware to fasten equipment. See below for details.

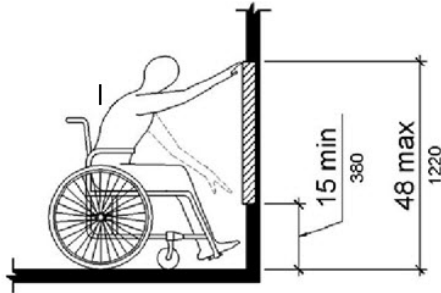
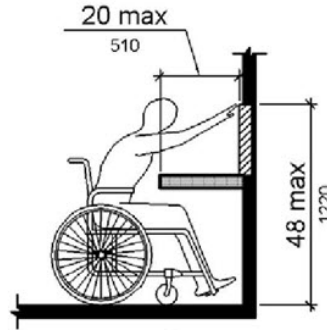
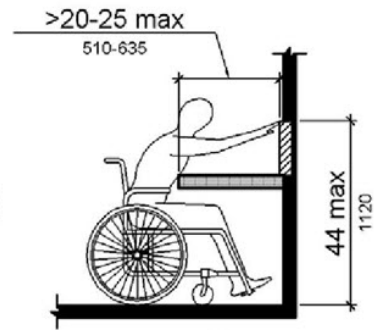


Figure 308.2.1
Unobstructed Forward Reach



(a)



(b)

Figure 308.2.2
Obstructed High Forward Reach

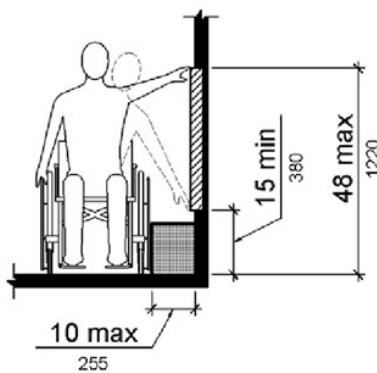
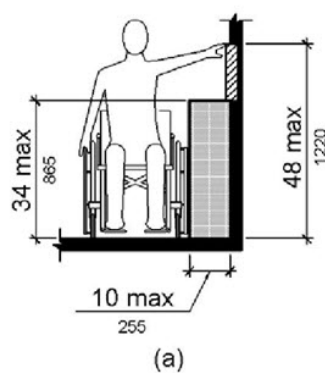
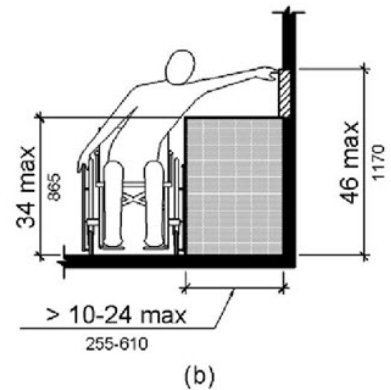


Figure 308.3.1
Unobstructed Side Reach



(a)



(b)

Figure 308.3.2
Obstructed High Side Reach

2.) Concrete Pad, Power Feed, and Anchor Requirements

- Provide an approved concrete or composite base with the top flush at ground level with 12"-30" conduit stub-up centered. The base size should be a minimum of 18" x 18" x 18" and can be poured or pre-cast / pre-made. Installation of protective steel bollard post(s) and/ or curb stops to protect the charger from an automobile strike is recommended. Using the provided drop-in anchors (with a concrete base), secure the pedestal to the base.
 - Please note that all local codes should be obeyed when making the concrete foundation.
- There is an option to run the power supply wires underground, feeding through the bottom opening in the pedestal or, if the conduits are run above ground, the wires may be brought in through the sides of the post using the lower 1" holes on each side of the pedestal base. When using above ground conduits, use ¾" NPT liquid-tight fittings to enter through 1" holes in lower section of the pedestal.
- Feed-wire size shall be determined by a qualified electrician using industry standard calculations.
- Note: Install the power feed and communication wires so they extend sufficiently above the ground for direct attachment to the EVSE.

3.) Single/Dual Post and Cable System Installation

1. Remove the assembly from the two (2) packages. Remove the metal mounting bracket and hardware from its box and set aside.
2. Place the pedestal-base assembly onto the concrete mounting base. A minimum base size of 18" x 18" x 18" of reinforced concrete is recommended.
3. Center the base plate over the conduit if underground conduit is used and mark the four mounting hole locations onto the base. Remove the pedestal assembly.
4. Drill mounting holes in the base. NOTE: The included drop-in anchors require a 5/8" hole.
 - Clean debris from the holes and install drop-in anchors using the proper setting tool (not included).
 - Please note, local codes should be followed during this step.
 - Place the pedestal-base assembly onto the concrete base while completing (a) or (b) below. Bolt-down the pedestal base using the included stainless-steel bolts and washers, making sure the base is level. Torque the bolts down to 20 ft-lbs. Shim base plate if necessary (shims not included).
 - a. If conduit is stubbed up through base from underground routing, feed the power and communication wires through the opening in the base of the 3" x 6" raceway.
 - b. If conduit is above ground, remove hole plug(s) and connect conduits to the lower 1" holes in the sides of the 3" x 6" raceway using ¾" NPT connectors.
 - c. Attach the retractor assembly to the pedestal base lower plate by inserting 1/4-20 machine button head screws into the threaded base plate. Attach the retractor to the 3x6" raceway using 1/4-20 machine button head screws and "cap nuts". (Do not overtighten.).
5. Install the 90-degree conduit NM connectors on the raceway (one for single EVSE post and two for dual EVSE post). Feed the power wires (L1, L2, and GND) through the NM connectors.
6. Install the top cap onto the raceway and secure it using a thin bead of silicone adhesive (included). Feed wires through the top cap hole using Seal Tight conduit and connectors.

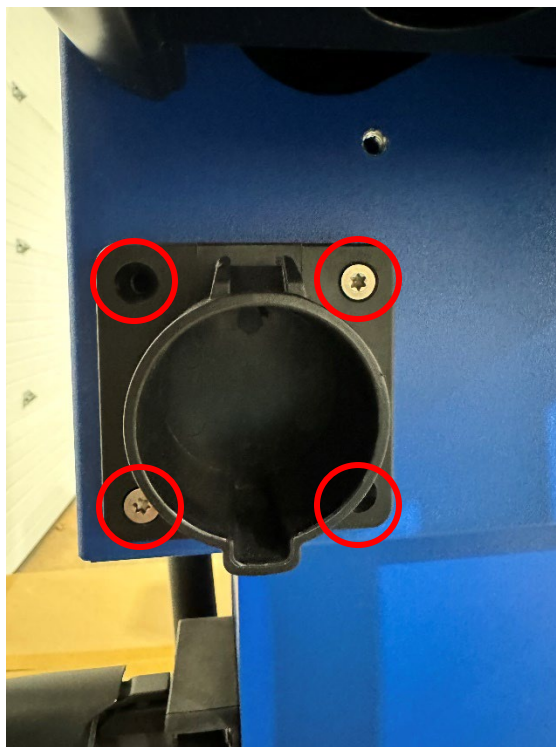
4.) ICE 80A (Single) Mounting



- Once the pedestal is fully assembled, Take the single bracket and align the single mount bracket with the holes marked by red circles above.



- Using the supplied 10-32 bolts, attach two bolts on each side of the bracket as shown by the red circles to secure the bracket in place with the pedestal.



- Attach the supplied cable holster shown above at the bottom left corner of the bracket that was just installed, using the four supplied counter sink bolts.



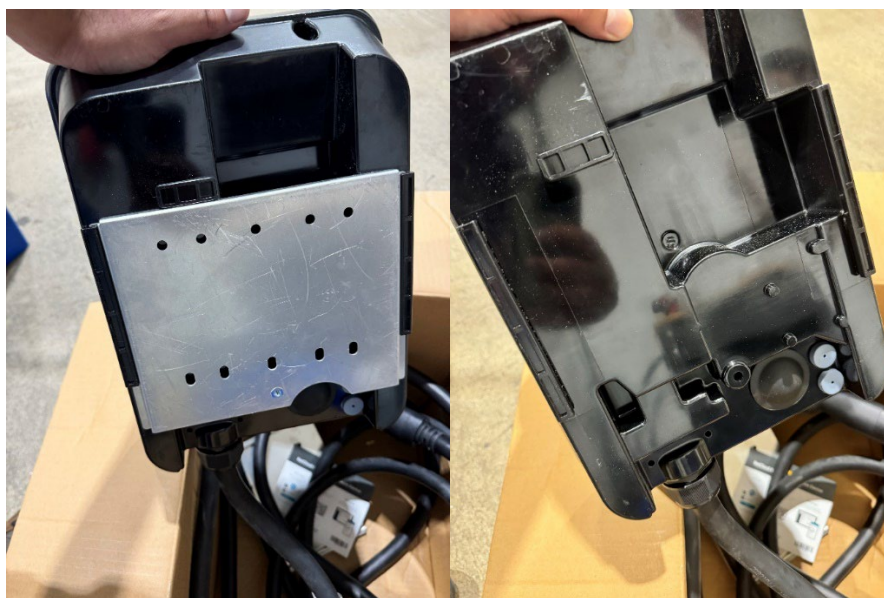
- To attach the ICE 80A Charger to the pedestal, remove the screw holding the outer front cover of the unit, then take the cover off.



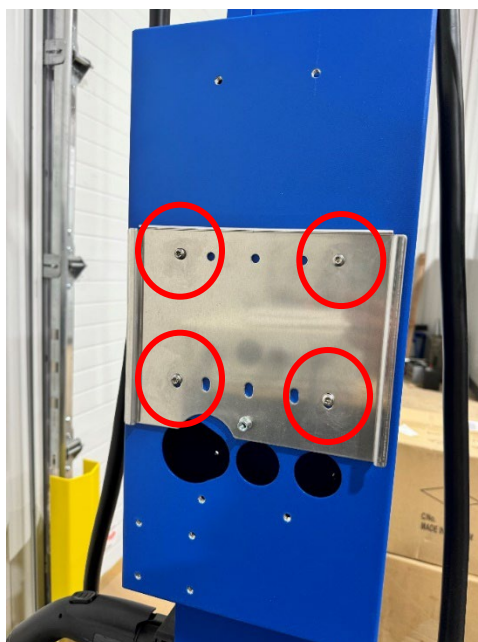
- Remove the inner front cover from the unit



- Remove the bolt that secures the mounting bracket to the ICE 80A.



- Remove the back bracket of the ICE80A



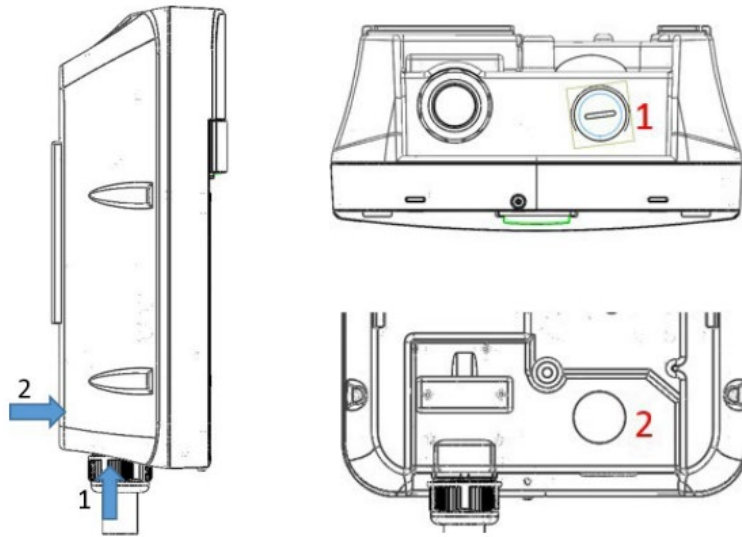
- Attach the ICE 80A bracket in the sections marked by the red circles with the supplied 10-32 bolts. Be sure the brackets' orientation is the same as shown in the image.



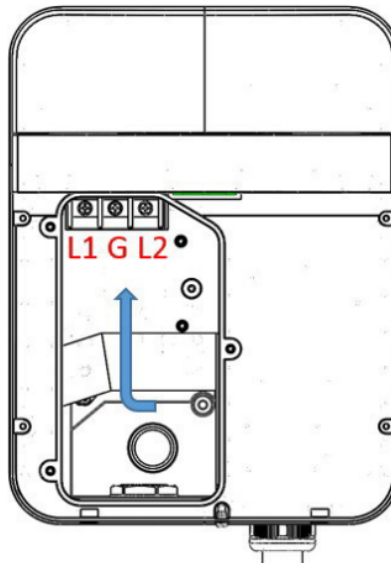
- Slide the ICE 80A onto the bracket.



- Attach the previously removed bolt that secures the ICE 80A to the mounting bracket, and tighten down to a torque value of 25.6 lb/in



- Run the AC Input into the entry point marked #2.



- Once the AC Input wires are run into the ACL2, connect them on their respective terminals, and torque them down to 25.6lbs-in.

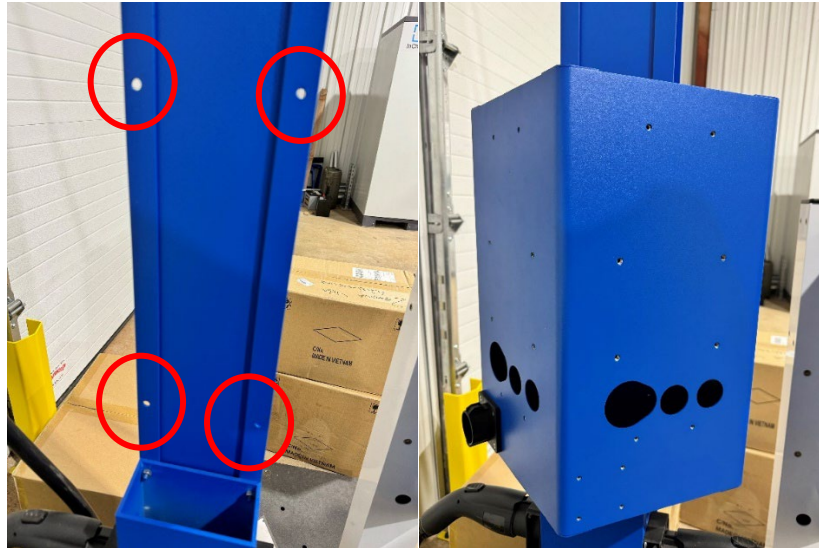


- Reattach the internal front cover, and torque down the bolts to 12 lb-in.

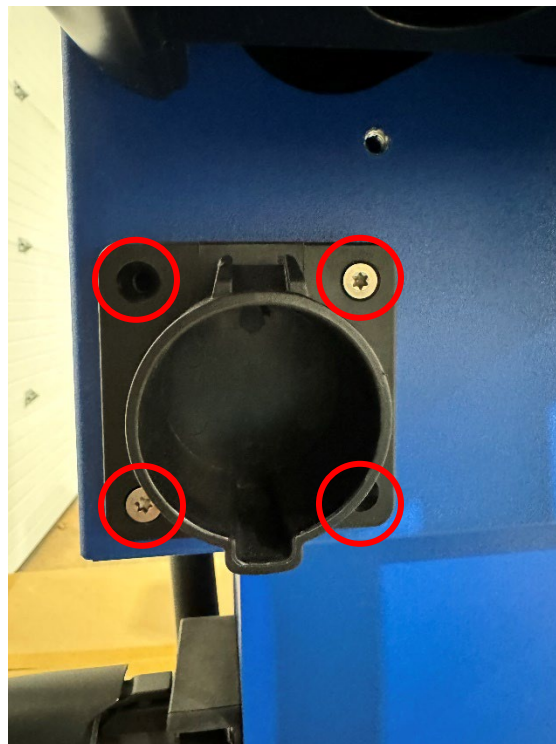


- Reattach the external front cover by screwing in the front cover bolt at a torque value of 12 lb-in.

5.) ICE 80A (Single) Side by Side Mounting



- Once the pedestal is fully assembled, Take the Side-by-Side bracket and align the mounting bracket with the holes marked by red circles above using the supplied 10-32 bolts.



- Attach the supplied cable holster shown above at the bottom left corner of the bracket that was just installed, using the four supplied counter sink bolts.



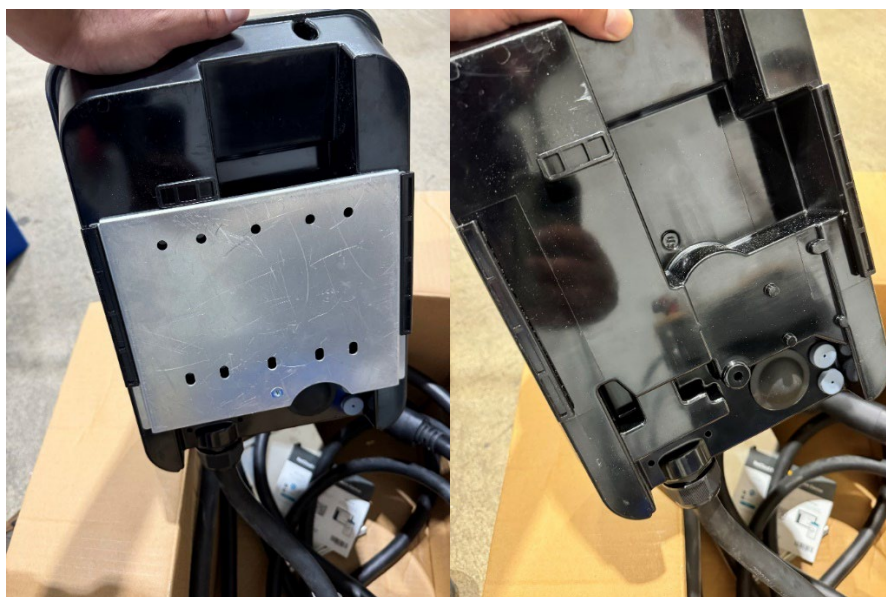
- To attach the ICE 80A Charger to the pedestal, remove the screw holding the outer front cover of the unit, then take the cover off.



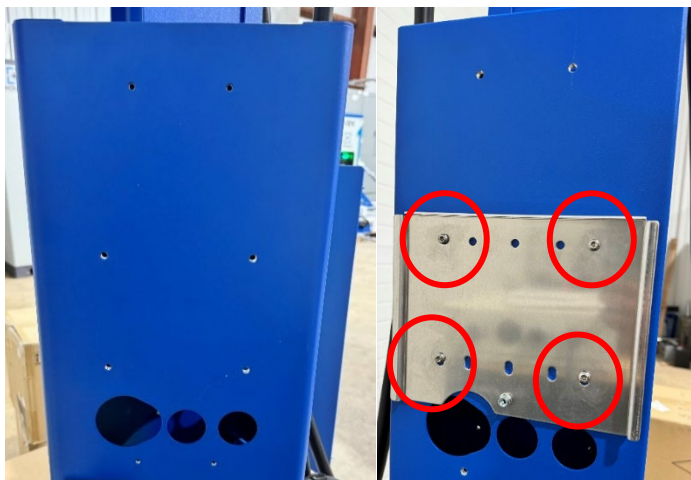
- Remove the inner front cover from the unit.



- Remove the bolt that secures the mounting bracket to the ICE 80A.



- Remove the back bracket of the ICE80A



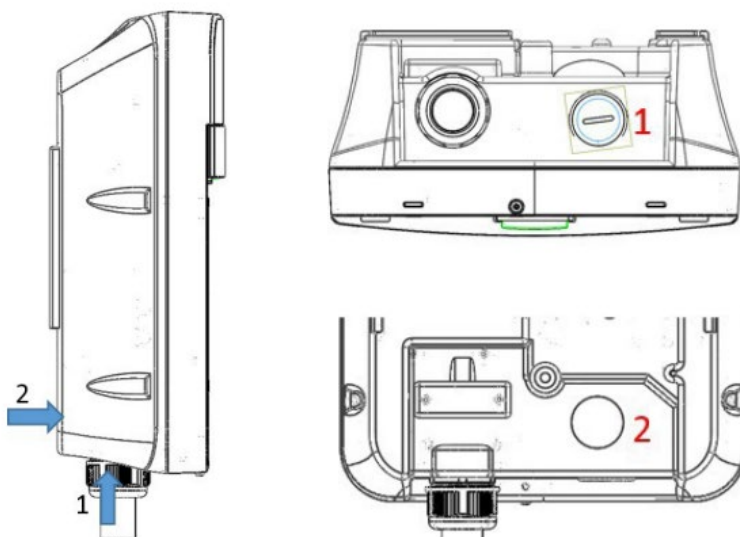
Attach the ICE 80A bracket in the sections marked by the red circles with the supplied 10-32 bolts. Be sure the brackets orientation is the same as shown in the image. This can be done on either the left or right side.



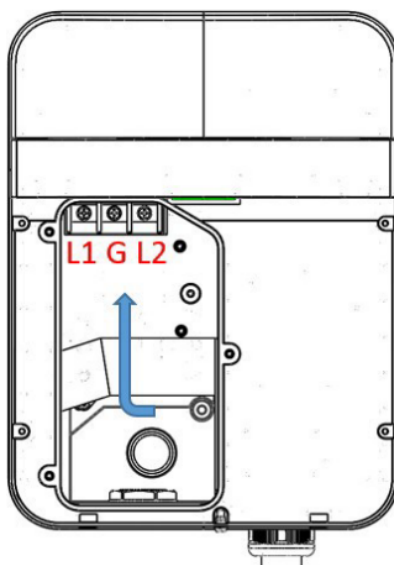
- Slide the ICE 80A onto the bracket.



- Attach the previously removed bolt that secures the ICE 80A to the mounting bracket, and tighten down to a torque value of 25.6 lb/in



- Run the AC Input into the entry point marked #2.



- Once the AC Input wires are run into the ACL2, connect them on their respective terminals, and torque them down to 25.6lbs-in.



- Reattach the internal front cover, and torque down the bolts to 12 lb-in.



- Reattach the external front cover by screwing in the front cover bolt at a torque value of 12 lb-in.
- Repeat the ICE80A Mounting steps for the opposite side of the Side-by-Side bracket to secure the second ICE 80A.

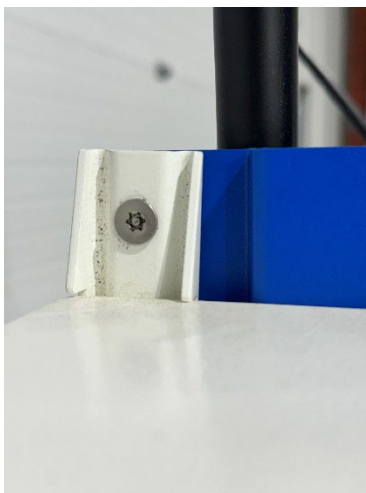
6.) Dual ICE 80A Mounting



- Once the pedestal is fully assembled, Take the ICE Dual 80A bracket and align the bracket with the holes marked by red circles above. The bracket has threaded alignment points.



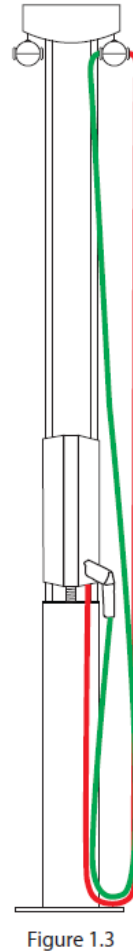
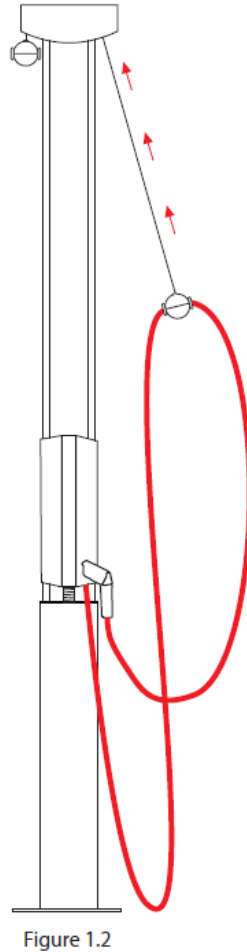
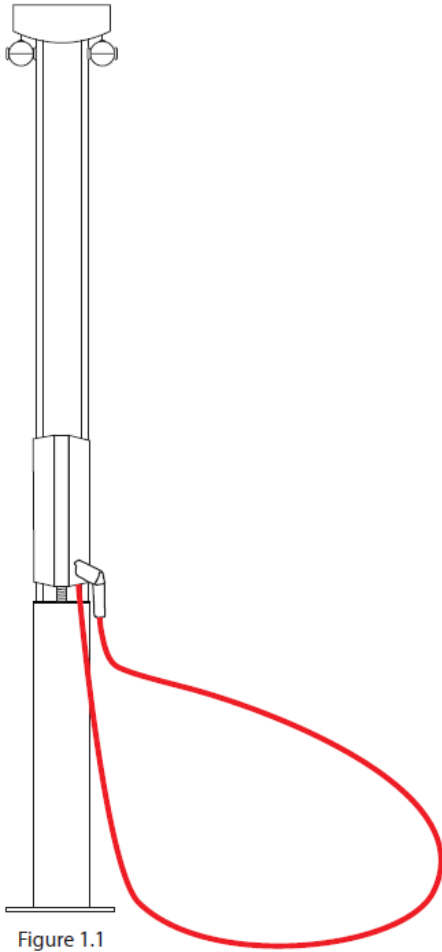
- Using the supplied ¼-20 hex nuts, attach two bolts on each side of the bracket as shown by the red circles to secure the bracket in place with the pedestal.



- Hold the Dual ICE 80A up to the bracket and secure the charger by using the four 1/4 - 20 counter sink bolts. A T-30 Security bit will be required to tighten them down to 20ft lbs.



7.) Cable Clamp Attaching



- a. Ensure the charging station is properly installed to the pedestal/retractor system.
- b. Remove the bottom half of the cable clamp by removing the two screws and set aside.
- c. Unravel the charging cable by removing any twists and holstering the charging station connector to the connector dock. See Figure 1.1 Cable Unwound.
- d. Find the approximate mid-way point of the charging cable. Without tightening the screws all the way, loosely attach the cable clamp to the charging cable and retract to the starting point. The cable should freely slide/move within the clamp. See Figure 1.2 Charging Cable Midway Point.
- e. Slide the cable positioning until you've achieved a loop from charging station to clamp:
 - i. Both loops should hover above the ground. See Figure 1.3 Cable Hovers Above Ground.

- f. Using the included rubber square, insert between the cable clamp and cable, creating a tight grip on the cable as you tighten the screws (electrical tape can also be used). The cable should not move within the clamp!
- g. For Dual Cable Retractor Systems, repeat steps 12A-12F on the opposite side of the post.

The image displays three technical drawings of a vertical pole assembly, showing front, side, and rear views with dimensions in inches.

Front View (Left): The total height is 98.500. The top cap has a width of 10.250. The main pole has a diameter of 6.000. A rectangular mounting bracket is positioned 18.000 from the bottom, with a height of 5.000 and a width of 4.000. The base has a width of 6.000.

Side View (Middle): The total height is 98.500. The top cap has a width of 3.375. The main pole has a diameter of 3.000. The mounting bracket is 18.000 from the bottom. The base has a width of 3.000. There are two circular features on the pole: one near the top and one near the bottom.

Rear View (Right): The total height is 98.500. The top cap has a width of 10.250. The main pole has a diameter of 11.500. The mounting bracket is 18.000 from the bottom. The base has a width of 11.500. There are two circular features on the pole: one near the top and one near the bottom.

Technical drawings of a vertical pole assembly, showing three views: Side View, Front View, and Rear View. Dimensions are provided in feet and inches.

Side View:

- Total Height: 98.500
- Top Flange Width: 10.250
- Base Width: 6.000
- Section Height: 18.000

Front View:

- Top Flange Width: 3.375
- Central Panel Width: 4.000
- Central Panel Height: 5.000
- Base Width: 3.000
- Base Mounting Hole Spacing: .375

Rear View:

- Top Flange Width: 10.250
- Base Width: 11.500
- Base Mounting Hole Spacing: .750

10.) Single/Dual Post and Cable System Base Plate Dimensions

