



# EV CHARGING STATION FOUNDATION

## INSTALLATION INSTRUCTIONS

# TABLE OF CONTENTS

## SP3663 - EV Charging Station

|                         |   |
|-------------------------|---|
| Package Components..... | 3 |
| Preparation.....        | 4 |
| Installation.....       | 5 |
| Charger Mounting .....  | 6 |

### WARNINGS AND IMPORTANT NOTES

1. Always check with local codes to ensure compliance. You may need to adjust the guidelines provided here to comply with local regulations.
2. **ALWAYS CALL BEFORE YOU DIG:** 811 is the number used most in the U.S.
3. Use only qualified technicians for the task at hand. Improper installation can lead to equipment damage, injury, or even death of persons involved.
4. Follow all instructions for the charger unit being installed.

### SAFETY CONSIDERATIONS

This application procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual. **FAILURE TO FOLLOW THESE PROCEDURES MAY RESULT IN PERSONAL INJURY OR DEATH.**

**Do not modify this product under any circumstances.**

This product is intended for use by trained technicians only. **This product should not be used by anyone who is not familiar with, and not trained to use it.**

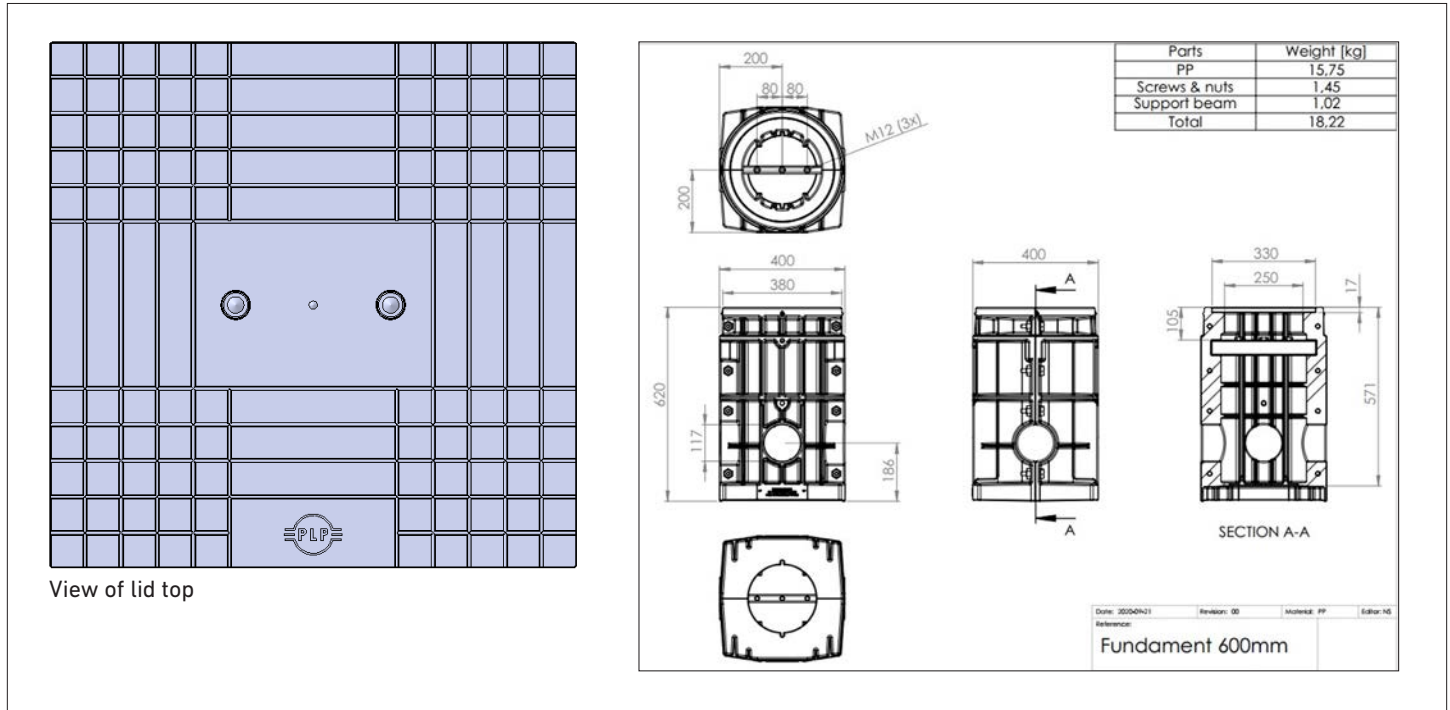
When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact. Be sure to wear proper safety equipment per your company protocol.

For proper performance and personal safety, be sure to select the proper size PREFORMED™ product before application.

PREFORMED products are precision devices. To ensure proper performance, they should be stored in cartons under cover and handled carefully.

## PACKAGE COMPONENTS

Be sure to read and completely understand this procedure before installing product.



### Package Components:

- Foundation Base
- Cast Aluminum Lid
- 90 mm x 12 mm Allen head cap bolts (2)
- Installation guide

### Tools Required:

- Back hoe or shovel(s)
- M10 Allen wrench
- Assorted drill bits
- Metal cutting hole saw with arbor for conduit pass through

# PREPARATION

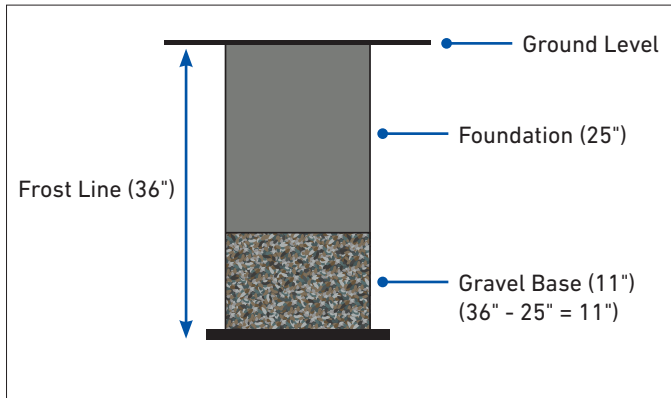
## STEP 1



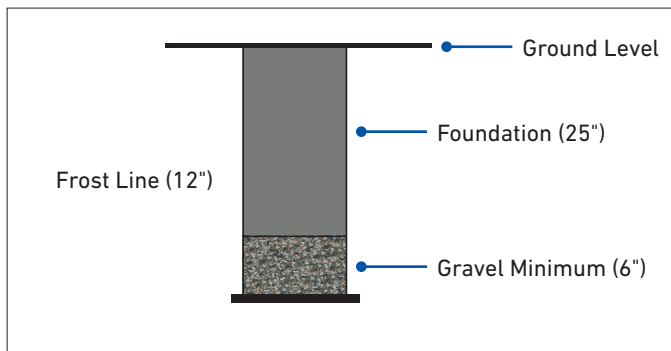
Prepare the site with substrate dug out to accommodate a hand tamper or vibrating plate to be used on all sides of the foundation. Depth should be the height of the foundation (25") plus a 6" gravel base. Minimum gravel base: 6" or enough to reach the region's frost line.

### NOTE

Layers of gravel compacted every 3" to 6".



36" Frost Line requires 11" of gravel (36" - 25" = 11")



12" Frost Line requires 6" of gravel (25" + 6" = 31")

## INSTALLATION

### STEP 2



Ground prepared for installation of foundation; conduit ran and routed through open port to middle bar.

Feed the conduit and route to the center bar. PLP recommends tie wrapping the conduit to the center bar for centering and ease of use later. See images.



Conduit can be tie wrapped or wire tied to the middle bar for support.

### STEP 3



Once the foundation is leveled and at the desired height for finishing the EV installation, begin to add gravel (PLP recommends #3 or #4 compacting limestone or a locally available bedding stone) in 3-6" layers, compacting each layer with a manual compacting sledge or compacting machine. Ensure level status is maintained and that the gravel is filling the ribs on the exterior of the foundation. Repeat this process until the desired height has been reached. (You may finish the surrounding area with concrete, paving stones, grass, mulch, or gravel.)

## STEP 4



Gravel filled in, in 3" - 6" increments, and then hand- or machine-tamped.

Once the foundation is embedded into the gravel and compacted, remove cover and proceed to create a drill pattern using the template or mounting hardware for the charger of choice.

## CHARGER MOUNTING

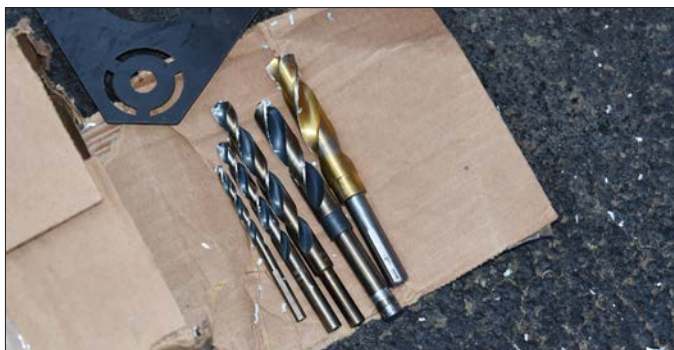
### STEP 5



Use the charger's template to determine drill hole pattern.

Lay out the template (ChargePoint CT4000 is shown in images), marking hole locations needed and drill into the aluminum cover. Place lock washers on the top part of the bolt to hold the bolts in place.

### STEP 6



Starting with a smaller drill bit and working up makes for a quicker and cleaner job.

Drill into the center of the cover (dimple in plate is provided for a good start) for the conduit run. Stepping up in drill bits is easier than going to the largest bit right away. Oversize the hole by 1/8" for proper clearance for bushing or wire clamp. See image.

## STEP 7



Attach the mounting bracket or plate for the charger/charger stand. Suggested use is to put star lock washers on to hold the bolts in place as the lid is bolted back down to the foundation.

## STEP 8



Route cable through the large center holes. Ensure no burrs or sharp edges are present. Using a bushing or wire clamp will protect the wire. Extending the conduit up through the hole in the plate or just the wire will be a local decision based on the type of charger, mounting pole, and codes. PLP highly recommends protecting the wire at any potential contact or rub points.

With an electrical nipple in place, route electrical wires through the oversized hole in the center of the plate. Take steps to protect the wire from any contact.

## STEP 9



Before attaching the aluminum cover, make sure that the foundation rim is clear of any gravel pieces that might make the adapter cover unstable after installation.

Once holes are drilled, bolts are mounted, and wire has been run, secure the plate down using the two M12 bolts. Clean the outer edges for a secure fit.

## STEP 10

Attach the adapter cover with the accompanying M12 x 90 mm bolts (2 pieces) through the recessed bolt holes in the top of the plate into the beam inside of the foundation using an M10 Allen wrench.

- If they align with your charger's mounting bracket, these bolts may also be used to attach the charger. PLP recommends that you switch to a hex bolt or a flange bolt for this purpose.
- The threads on the bar are M12 x 1.75.
- The maximum torque on the screw is 15 ft-lbs. Greater torque will start to deform the bracket, which is part of the patented functionality to maintain the foundation's position in the event of vehicle collision damage.
- Some charging stations can be fastened using only one center screw (M12 x 90 mm), making the mounting plate rotatable at the foundation top. However, if larger charging stations are anchored, all three attachment points may be needed, and then the orientation of the beam will become important. Drilling holes in the aluminum cover will be necessary per the mounting plate attachment.

## STEP 11



At this point, follow the installation instructions for the charger that you have chosen.

Installation is complete in one day, and charger is ready for use.



A charging-ready street showing a future proofed, scalable, pre-prepared PLP EV charger foundation. EV chargers can now be installed without any further infrastructure interruption. You may finish with concrete, paving stones, grass, mulch, or gravel.











---

**GLOBAL HEADQUARTERS**  
660 BETA DRIVE  
CLEVELAND, OH 44143

+1 440 461 5200  
PLP.COM  
EVINFO@PLP.COM