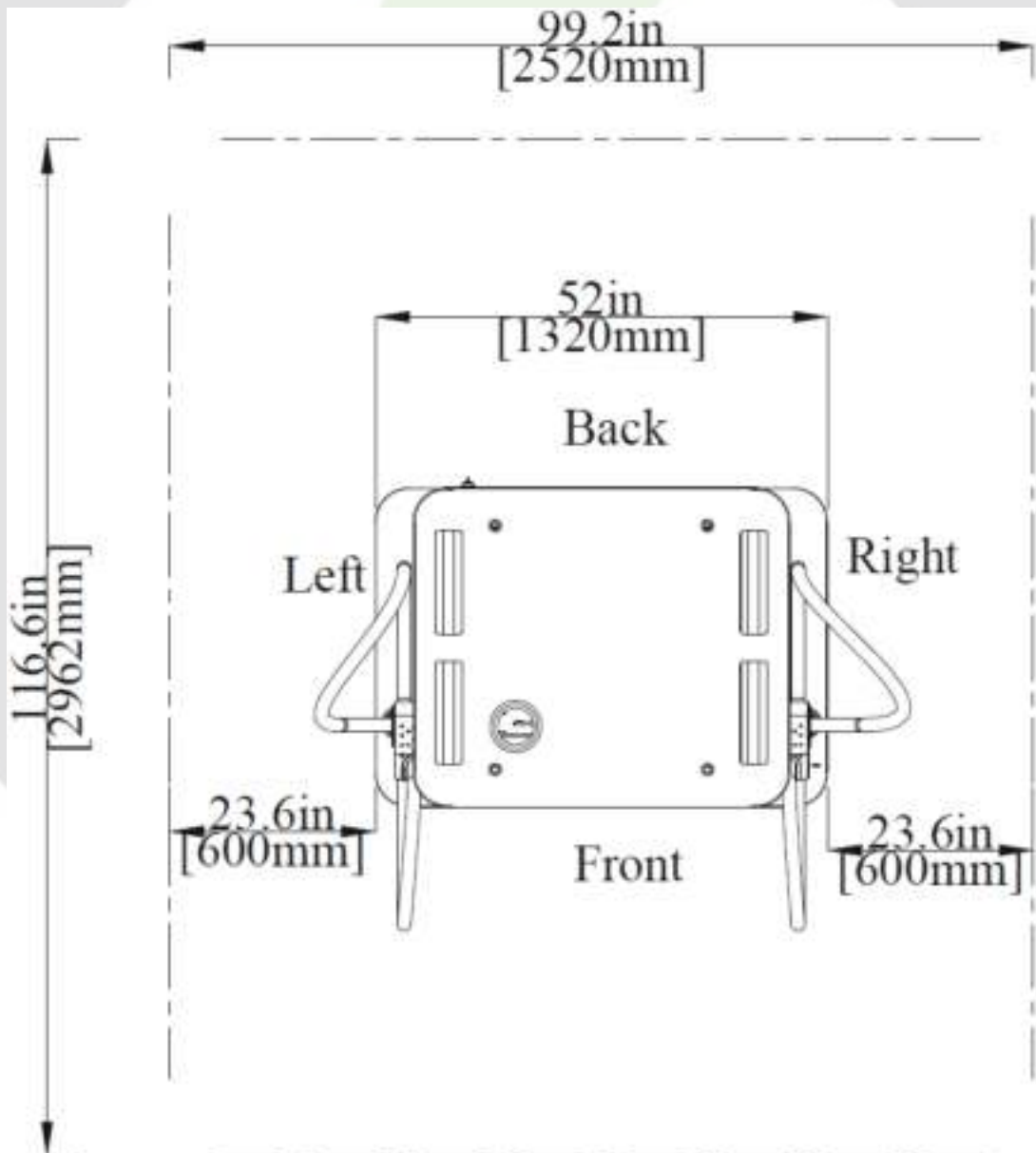


11.7 Installation Procedure

11.7.1 Required Space for Placing and Maintaining

Require a min. space of 99.2 x 116.6 inch (2520 x 2962 mm). This space is calculated as follows:

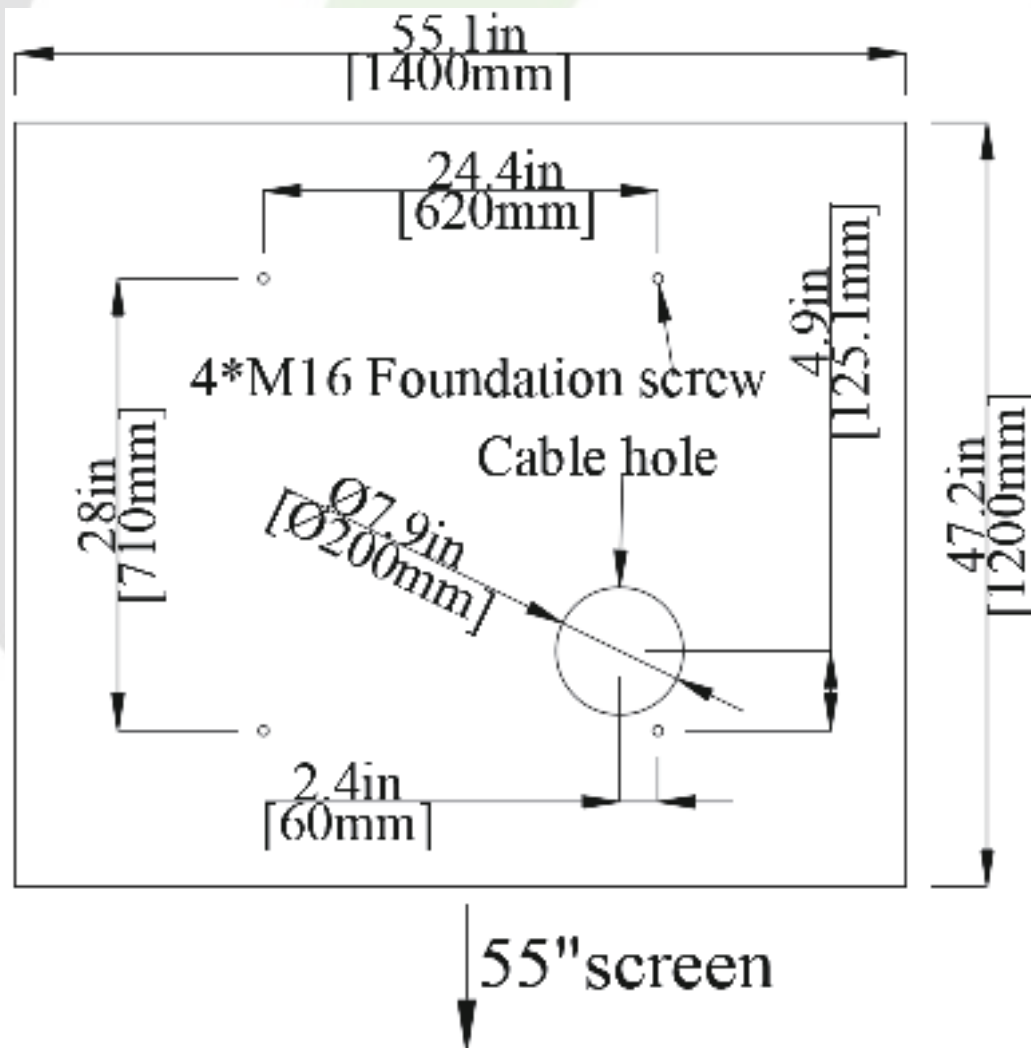
- Charger Size WxDxH: 52 x 36.6 x 91.6 inches (1320 x 930 x 2327 mm)
- Front side 40 inch (1016 mm), in order to operate dashboard & open the front door
- Left and right side 23.6 inch (600 mm), in order to open left and right door
- Backside 40 inch (1016 mm), in order to open the bracket door



11.7.2 Built Concrete Base

STEP 1

- Build 55.1" x 47.2" x 7.9" (1400mm x 1200mm x 200mm) concrete base on the level to stand charger in advance.
- Embed 4 M16 foundation screws into the concrete base; protruding at least 11" (280mm) above the surface
- Implant AC input cable conduit smaller than $\Phi 4.02"$ (102 mm), e.g., $\Phi 3"$ PVC conduit; and SFTP Ethernet cable conduit smaller than $\Phi 1.34"$ (34 mm), e.g., $\Phi 1"$ PVC conduit.
- And implant 4 pcs of M12 screw stick out the concrete base for 1.57" (40 mm) to fix the charger. The positioning of these 4 pcs of M12 screws should be within $\pm 0.08"$ (2 mm) in short axis, $\pm 0.32"$ (8 mm) in long axis according to screw holes of charger.
- To fit this positioning requirement, a steel plate fixture be suggested. Please create the fixture by the following drawing or use the installation template provided.

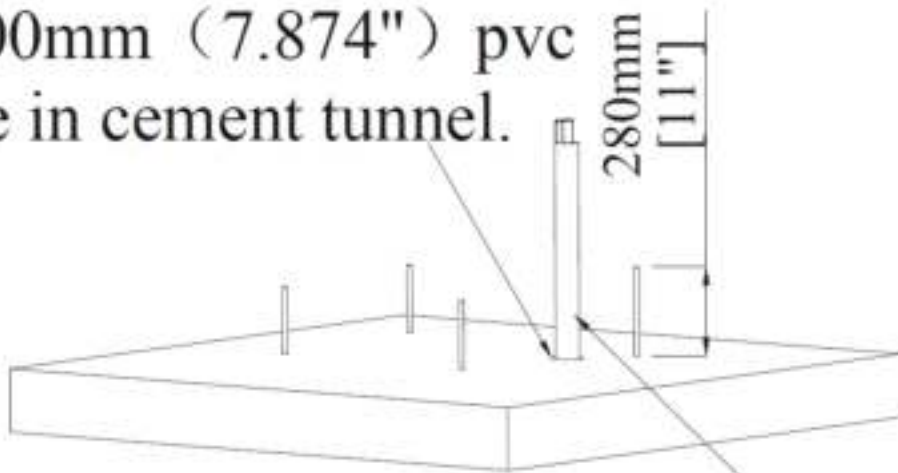


STEP 2

- Extend 3 phase 5 wires AC input cables from conduit of concrete base, AC cables expose at least 19.69" (500mm) and these 5 wires should be with ring terminals (L1, L2, L3 & N: Inner Diameter: 0.41" (10.5mm), Outer Diameter: 1.12" (28.5mm) & PE: Inner Diameter: 0.41" (10.5mm), Outer Diameter: 1.12" (28.5mm)).
- The conductor cross sectional area of input power wires should be not less than 95mm² (212 kcmil). If internet is connected via Ethernet, at least 71" (1800mm) of the Ethernet cable must be exposed from the conduit.

Pre-embedded

Ø200mm (7.874") pvc
pipe in cement tunnel.

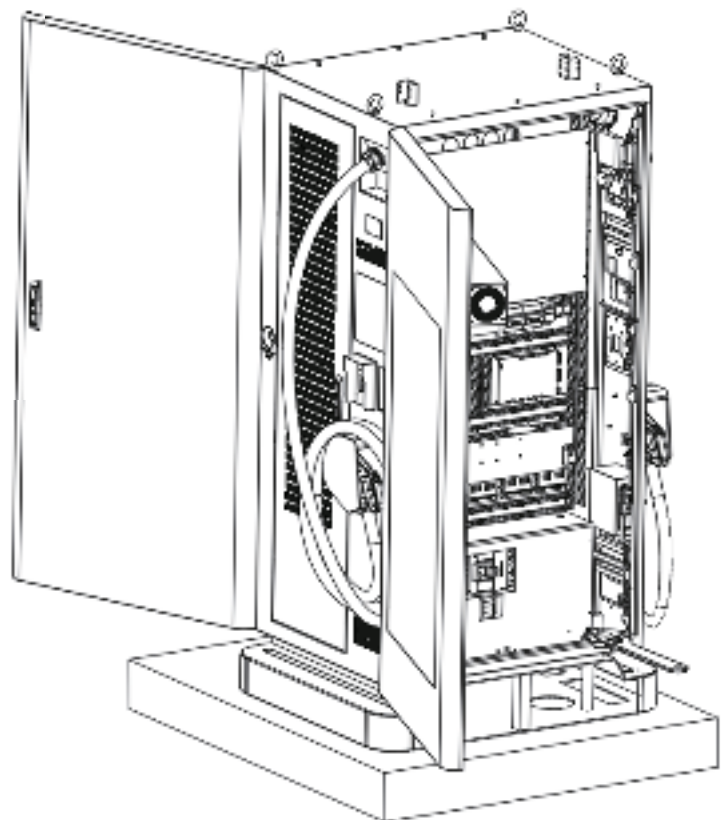
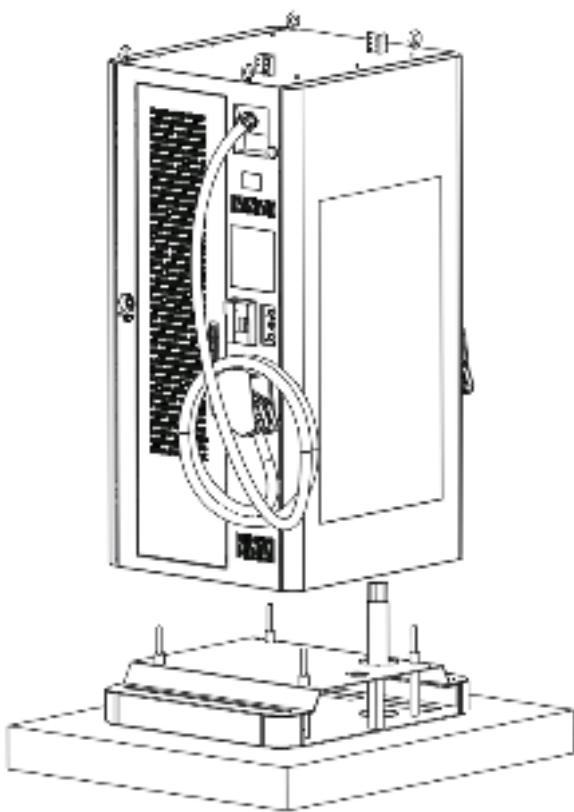


Five cables are drawn from the pipeline.

11.7.3 Installation

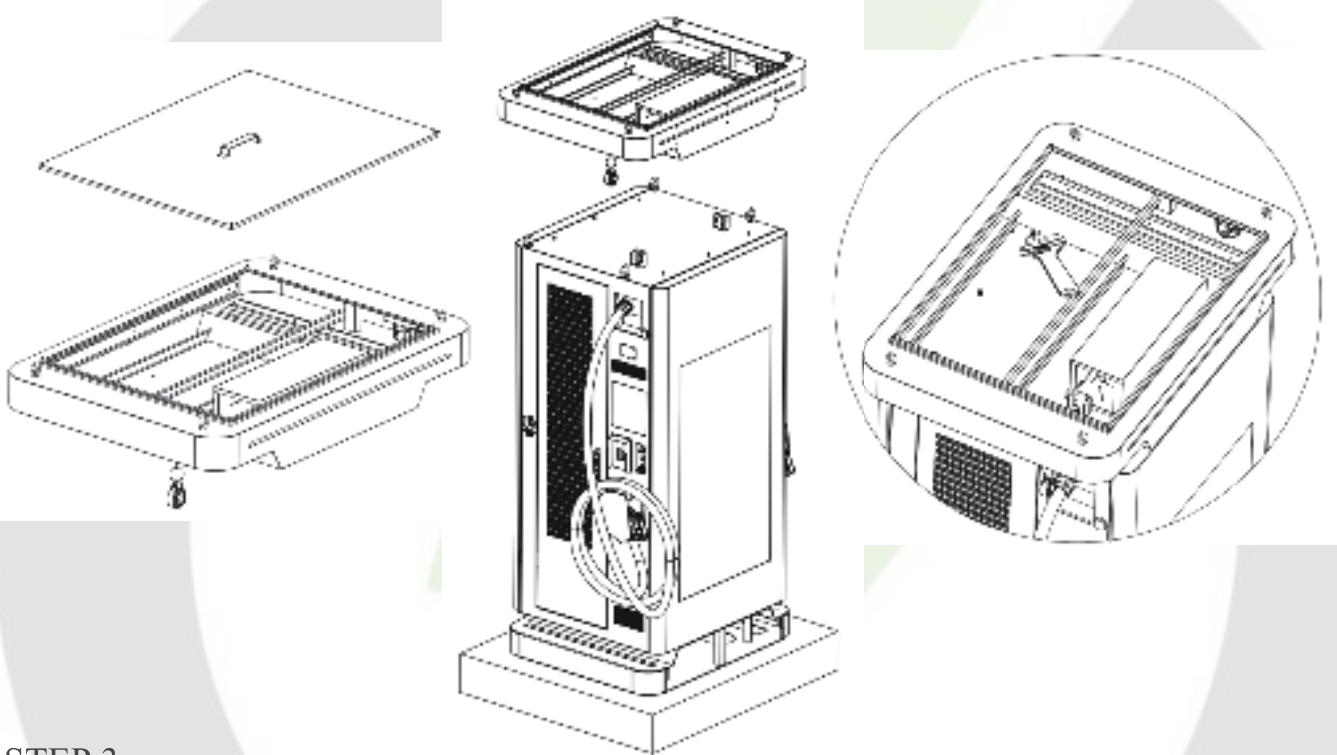
STEP 1

Position the charger's base on the concrete foundation, threading the input cable and M16 foundation bolts through the designated opening at the base's bottom, then remove the 4 eyebolts. Utilize a crane to carefully lift and place the charger atop the base, ensuring the cable and bolts are effectively pulled through from beneath. Subsequently, open the front and rear access panels. Employ an adjustable wrench or power tools to securely fasten the M16 nuts, accompanied by both metal and silicone washers, onto the corresponding bolts within the main unit (each screw is equipped with a nut, a metal gasket and a silicone gasket).



STEP 2

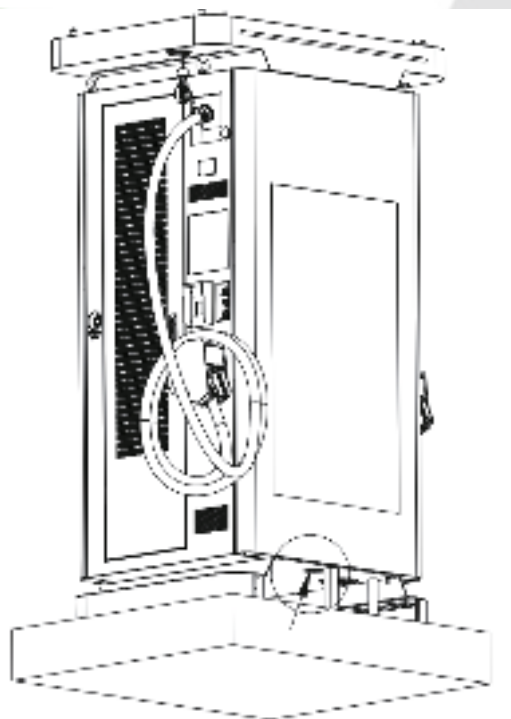
Remove the 4 eyebolts from top of the main unit and replace with rubber plugs. Then carefully remove the top cover of the cable management system by loosening the four M6 nuts and set it aside in a secure location. Utilize a crane to lift the cable management assembly and accurately position it onto the main unit of the charger. Secure the cable management to the charger using six M8 nuts, employing a wrench or power tools to ensure a tight and secure fit, then remove the eye bolts from top.



STEP 3

Wiring LED Lights on the Base:

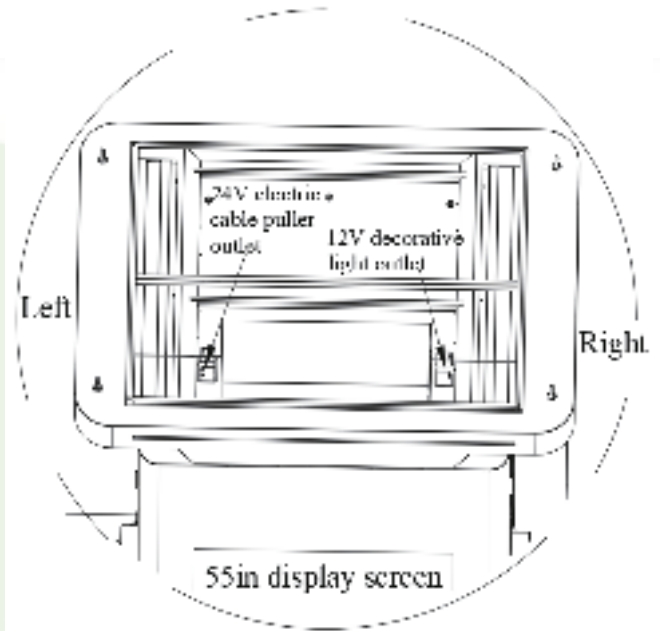
Extract the waterproof connector and cable from the designated arrow-marked position as illustrated in the figure. Proceed to establish a connection between the primary waterproof connector and those situated on both the left and right sides of the base.



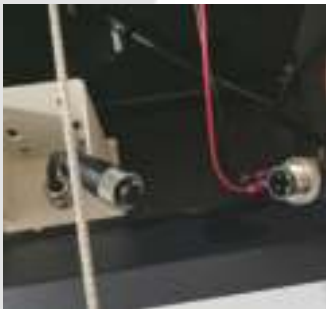
STEP 4

Wiring LED Lights on the Cable Management:

Securely fasten the waterproof connector from the main body located on the left, to the corresponding waterproof connector in the cable management system. Similarly, ensure the waterproof connector of the main LED light on the right is tightly secured to the corresponding connector in the cable management for the LED light.



Cable Management Wiring:



Pull out the waterproof connector



Splice waterproof connector



Tighten the screw on connector

Note: The connector of the CM is 4 cores, reinsert it under rotary connection if initial insertion is successful.

LED Light wiring:



Pull out the waterproof connector



Splice waterproof connector



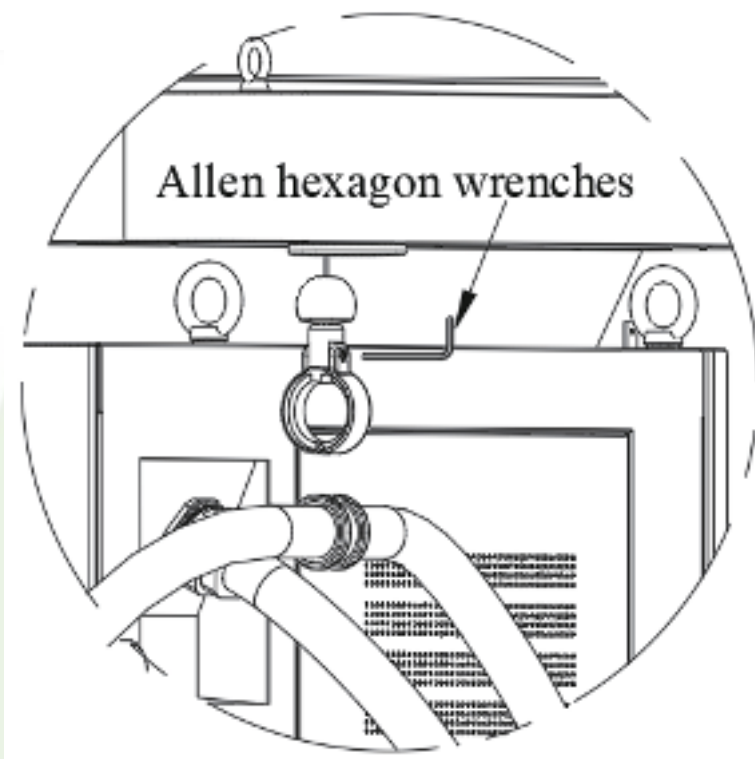
Tighten the screw on connector

Note: The connector of the Lights is 2 cores, reinsert it under rotary connection if initial insertion is successful.

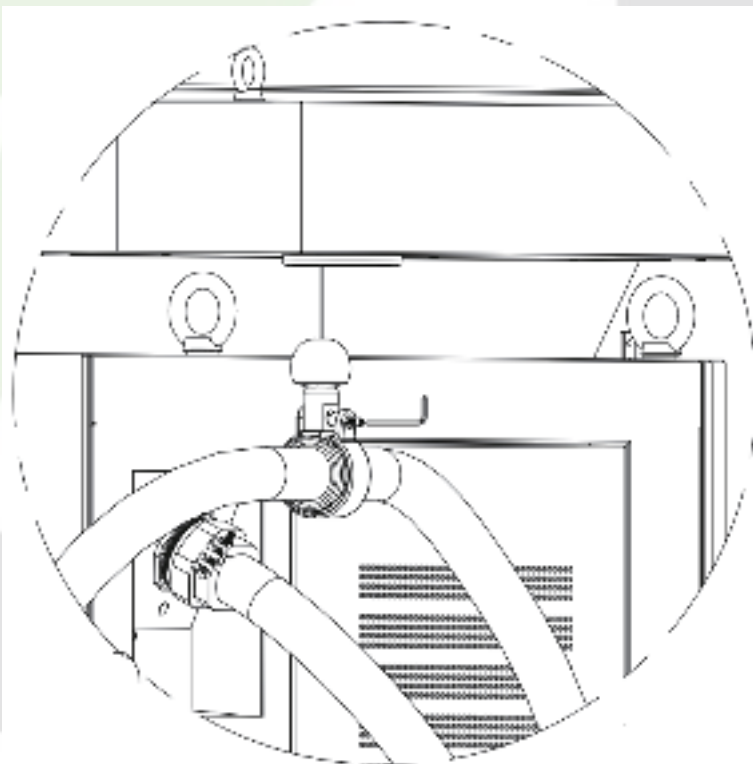
The wiring method of the LED Lights in the base is the same as of the LED Lights in CM.

STEP 5

Use a hex wrench to loosen the screw of the cord coil and install the cord coil at a suitable length on the charging cable



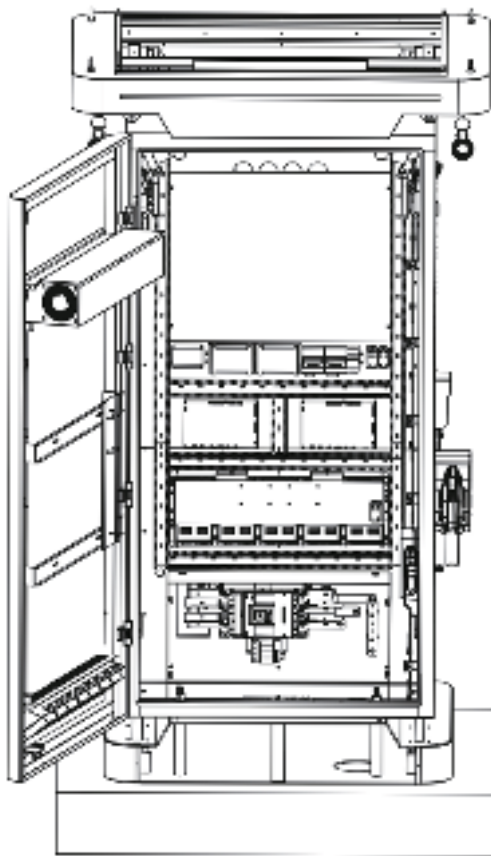
Replace the cover on the cable and fasten the screw to finish installation



11.7.4 Installing Cable

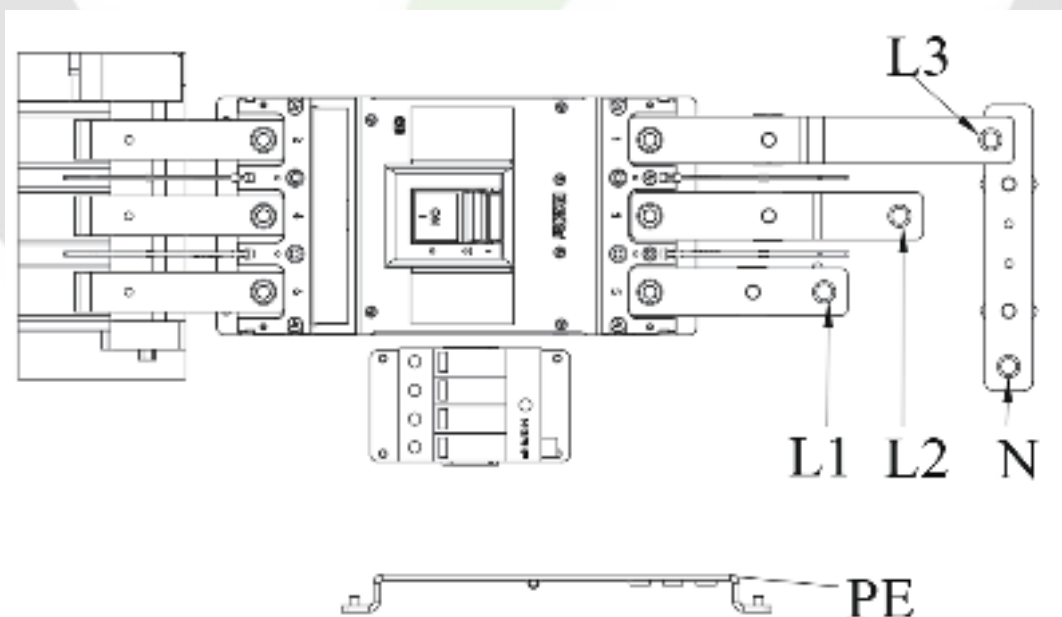
STEP 1

Open front and right door and disassemble the protection cover for wiring



STEP 2

Connect L1, L2, L3 and N of AC power to 4P terminal. Fasten each wire with proper screw and torque number - 180Kgf.cm/5-15 secs. Connect the PE wire (green with yellow) to grounding position of charger and torque number - 220Kgf.cm. Keep proper length of each wire then fasten cable grand.



STEP 3

Pull AC power cables to power distribution box, connect the Protective Earth wire (Green/Yellow) to ground point of power distribution box. Neutral should be shorted with ground point to meet TN(-S) grounding system. Ethernet cable should be connected to charger RJ45 port and fixed with adhesive cable ties as the picture below.

STEP 4

Wiring installation of L1, L2, L3 and Neutral wire to an external breaker. Recommended breaker spec.: Max. input current shall be not less than 300A, B Curve type. Max residual leakage current (RCD) shall be 30mA.



A 300A NFB with 30mA RCD – Type A is recommended.

STEP 5

Do Inspection as section 11.8.

Turn on the power source and be ready for operational testing. The power supply of the Standalone DC Fast Charger will be enabled and automatically drive the information screen. Information screen will turn to Supplier charging solution screen within 30 seconds.



Not following installation instruction will cause charger damage.

STEP 6

Use adaptive flame retardants and electrical insulated foaming agent and far from conductive live parts at least 12mm or other method to seal the cable entry hole to assure the IP55 grade of the charger, and prevent insects enter the cabinet.

STEP 7

Decorative LED Light Control settings

Use these settings to set the functional timer for DC Charger LED Lights

STEP 8

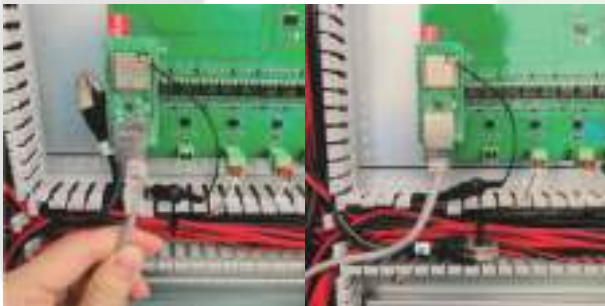
Network connection

a. Access internet by 4G module



Insert the simcard in the router's card slot and plug the 4G network cable (reserved in Chargers) into the module's network port.

b. Access internet by LAN



Connect the Ethernet cable to the module's network port reserved at the mainboard.

P.S. Unplug the module from the 4G network wire before switching to Ethernet.

c. Access internet by WIFI



There is nothing more for you to do. Please note: avoid inserting the 4G network cable into the module port.

11.8 Installation Inspection & Commissioning

11.8.1 Environmental Check

Item	Status	Remark
Ambient Temperature		
Ambient Humidity		
Sunshade		Recommended but not required.
Rain Canopy		Recommended for better charging experience and maintenance on rainy day.
Installation Altitude		< 6560 ft (2000m)
Air Circulation / Drafty		
Dust Level		
Anti-Vandalism Measures		

11.8.2 External Infrastructure Readiness & Check

Item	Status	Remark
Input Wirings & Terminals		Type/ Length/ Cross Section
Key & Lock of Cabinet Door		
Fixing Screws		Type / No.
No Fuse Breaker (NFB)		Notice: Current rating of NFB shall be higher than 300 Amp
Input Electricity Capacity		
Input Electricity Configuration		Wye
Grounding Resistance		< 10 Ω
Grounding System		
Input Voltage & Frequency		
Network Connection & Quality		Wi-Fi, 4G > -65dBm

11.8.3 EVSE Check – Static (Non-Powered)

Item	Status	Remark
Outlook		
Labeling & Warning Signs		
Package (Accessory) List		
Robustness of Input Wirings & connection		Refer to 13.2 Screw torque requirement table

11.8.4 EVSE Check – Powered On

Item	Status	Remark
Screen On		
Acoustic Noise		
Screen Display & Function		
Time Display Correctly		
Network Connection Quality		
Cooling Fans Operation & Noise		
Led Status Indication		
EVSE Setting		
Function of Engineer Mode		
Version of H.W. & F.W.		
Remote Control & Monitoring		
Backend Server Connection		Wi-Fi, 4G > -65dBm

11.8.5 EVSE Check – Charging

Item	Status	Remark
User Authorization –RFID		
User Authorization –QR Code		
User Authorization –Others		
Waiting Time of Connection Check		
Reading of Each Display Item		
Full Charge Test		
Function of Electronic Lock		
Reading of Engineer Mode		
Airflow & Noise of Cooling Fan		
Charging Record (log) Upload		
Remote Control & Monitoring		

11.8.6 EVSE Check – Emergency stop check

Item	Status	Remark
Emergency stop & Recovery		

11.8.7 CM Inspection & Commissioning

The cable management is controlled when the gun is drawn. This operation cannot be performed when the gun is into the charging port.

- The button indicator lights up after charger is powered on
- Press the “Extend cable” button to release the cable to a preset length
- Press the “Retract cable” button to wind up the cable into its original position
- Do not press “Stop” unless it is an emergency.

Note: do not try to pull the cable manually

