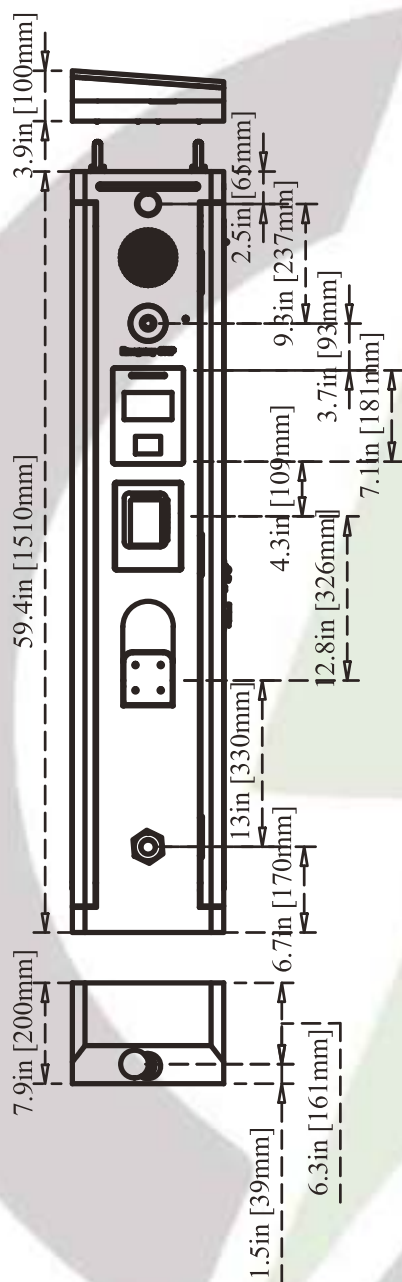
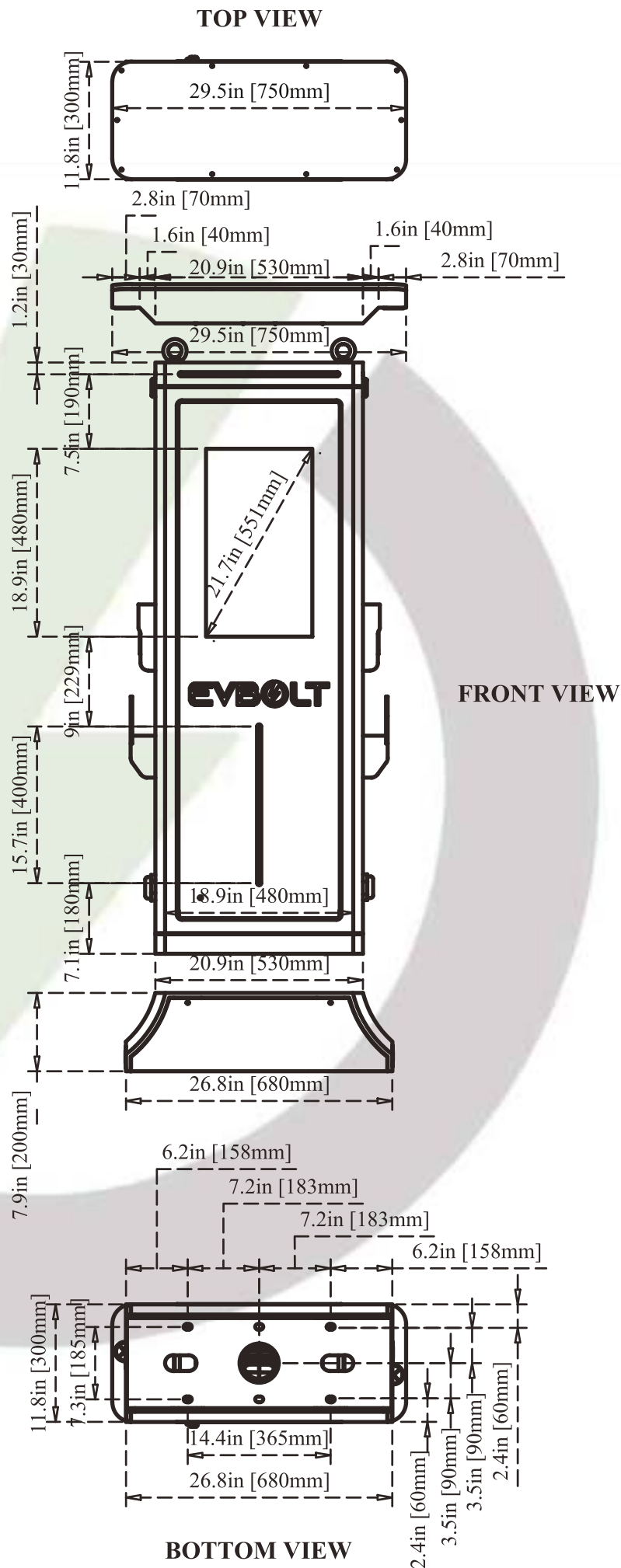




SIDE VIEW



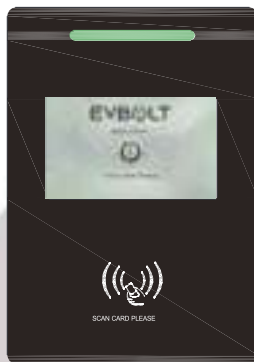
BOTTOM VIEW

7. Specifications

MODEL		BNZO 22 (EVB-AC-B2X11DHD)
AC INPUT	Voltage Rating	Single Phase 200-240Vac
	Max. Input Current	2 x 48A
	Frequency	50/60Hz
	Power Factor	> 0.99
AC OUTPUT	Output Voltage Range	200 – 240 Vac
	Maximum Output Current	2 x 48A
	Maximum Output Power	2 x 11.5kW
	Simultaneously output mode	100% *Each connector will get 100% output power when plugged in simultaneously.
Communication	External	Ethernet, Wi-Fi and 3G or 4G
	Internal	RS485
Input Protection	OVP, OCP, OPP, UVP, SPD, RCD	
Output Protection	OCP, OVP, LVP	
Internal Protection	AC Contactor Detection	
User Interface & Control	Display	2 x 4.3-inch touchscreen LCD
	Button	Emergency shut off
	User Authentication	App, WebApp, ISO 15118, RFID (Optional), Credit Card Terminal (Optional)
	Backend Support	OCPP 1.6 JSON (Upgradeable to 2.1)
Advertisement	Display	21.5-inch LED Screen
	Resolution	TFT – LLCD Panel (1920 x RGB x 1080 pixels)
	Backend	EVBOLT Cloud

Environmental Conditions	Operation temperature	-22°F to 158°F (-30°C to 70°C)
	Storage Temperature	-22°F to 158°F (-30°C to 70°C)
	Relative Humidity	5%~95% RH, non-condensing
	Altitude	≤ 6560 ft (2000m)
Regulations	Safety	UL2202, UL2231
	EMI/EMC	UL2202
	Charging Interface	SAE J1772 (Type 1)
	Certification	ETL, Energy Star
Mechanical Specifications	Dimensions (WxDxH)	29.5 x 11.8 x 71.3 inches (750 x 300 x 1810 mm)
	Weight (typ.)	< 224.8lbs. (102 kg), includes two charging cables
	AC Charging Connector	16.4ft Dual charging cable
	Cooling	Fan cooling
	Ingression Protection	IP54 NEMA 3R
	Anti-vandalism	IK10, excluding LCD & RFID cover

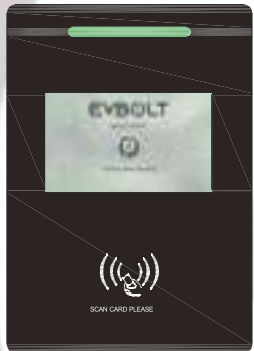
8. Status Description



READY

STANDBY

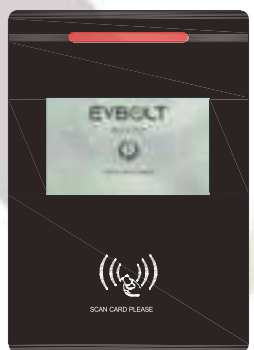
Green light stays steady in standby mode.



CHARGE

CHARGING

Green Light Flashing



FAULT

FAULT

Steady red light when fault occurs

9. Installation Instructions

9.1 Contractor Safety Guide

- A safe work environment for everyone - participants, installation and demolition crews, contractors and subcontractors
- Ultimately, it is the responsibility of contractors to ensure the safety and safe work practices of their employees and subcontractors who may be working at the site on their behalf
- This guide provides a simple reference guide with basic rules for implementation. This guide does not outline every single safety standard: it is designed to be a supplement to participants, contractors and subcontractors
- Contractors, subcontractors and employees should cooperate with their employers and other persons in complying with safety regulations and instructions
- In particular, employees should:
 - Obtain the qualified authorization of the responsible unit in the construction area
 - Work safely
 - Not do anything to endanger themselves or other persons
 - Use personal protective equipment as required and take reasonable care of it when it is not in use
 - Report unsafe activities immediately to supervisors or the responsible person in control of the workplace, and
 - Report all accidents and dangerous occurrences to the supervisor immediately after they happen

1- Reference standards



Adhere to the following codes:

- NFPA-70E -2021 Sec 110.3 (Electrical Safety in the Workplace)
- NFPA-70E -2021 Sec 130.4 (Shock Risk Assessment)
- NFPA-70E -2021 Sec 130.5 (Arc Flash Risk Assessment)

2- Requirements for workplace conditions



- Set up suitable fencing to isolate the construction area from outside
- Close and secure all entrances when the site is unattended
- Hang warning notices nearby which show the following information: warning icon and phone number of people in charge
- Install sufficient lighting fixtures

3- Cleaning up



- Keep work areas (including accessways) free from debris and obstructions
- Keep ground surfaces tidy and flat, to avoid people tripping or being hurt by tools or other objects
- Stack and store equipment and materials in a tidy and stable manner
- Regularly clean up and dispose of waste
- Remove all surplus materials and equipment after completion of work

4- Fire hazards

- Beware of flammable materials and goods. Keep them away from work areas.

5- Protection against high temperatures on the worksite



- Erect a sunshade or shed to shelter workers from the heat and sun
- Set up cooling equipment, such as exhaust fans
- Make water dispensers available
- Provide suitable protective clothing such as hat, sunglasses and long sleeves to protect workers from heat stroke and UV rays

6- Inclement weather



- Secure all scaffoldings, temporary structures, equipment, and loose materials
- Check and implement SOP to ensure disconnection of gas supplies, electrical circuits and equipment
- Inspect worksites to ensure protection against ingress of water or dust
- Inspect the drainage system for blockages and remove if found
- Stop all outdoor works except for emergency works

7- Ladders



- Only use ladders that meet local safety regulations
- When working at height, it is recommended to use platforms instead of ladders
- If using a platform is not practicable, a supervisor should assess the potential risk and provide safety
- protection equipment for workers
- use non-conductive ladders made of glass-fiber or reinforced plastic when carrying out electrical work
- Assign assistants to provide support when working on ladders
- Check all ladders for broken rungs or other defects before use and periodically
- Fully open stepladders when in use
- Do not overreach when working on a ladder
- Beware of overload restrictions

Country	Standards
USA	ANSI A 14.1, ANSI A 14.2, ANSI A 14.5
Canada	CSA Z11 M81

8- Working at height



- Avoid working at height by using alternative tools and methods as far as practicable
- It is strongly recommended to build suitable scaffolding or work platforms
- Provide fall arrest systems for workers if it is impracticable to use working platforms
- Secure all materials and tools to prevent them falling from height

9- Lifting operations



- Have lifting gear and apparatus regularly inspected and tested by qualified persons
- Isolate and cordon off lifting areas to keep out non-construction personnel
- Ensure that lifting routes do not cross buildings or people, and avoid collision with objects
- Do not exceed safe working load limits

10- For on-site workers

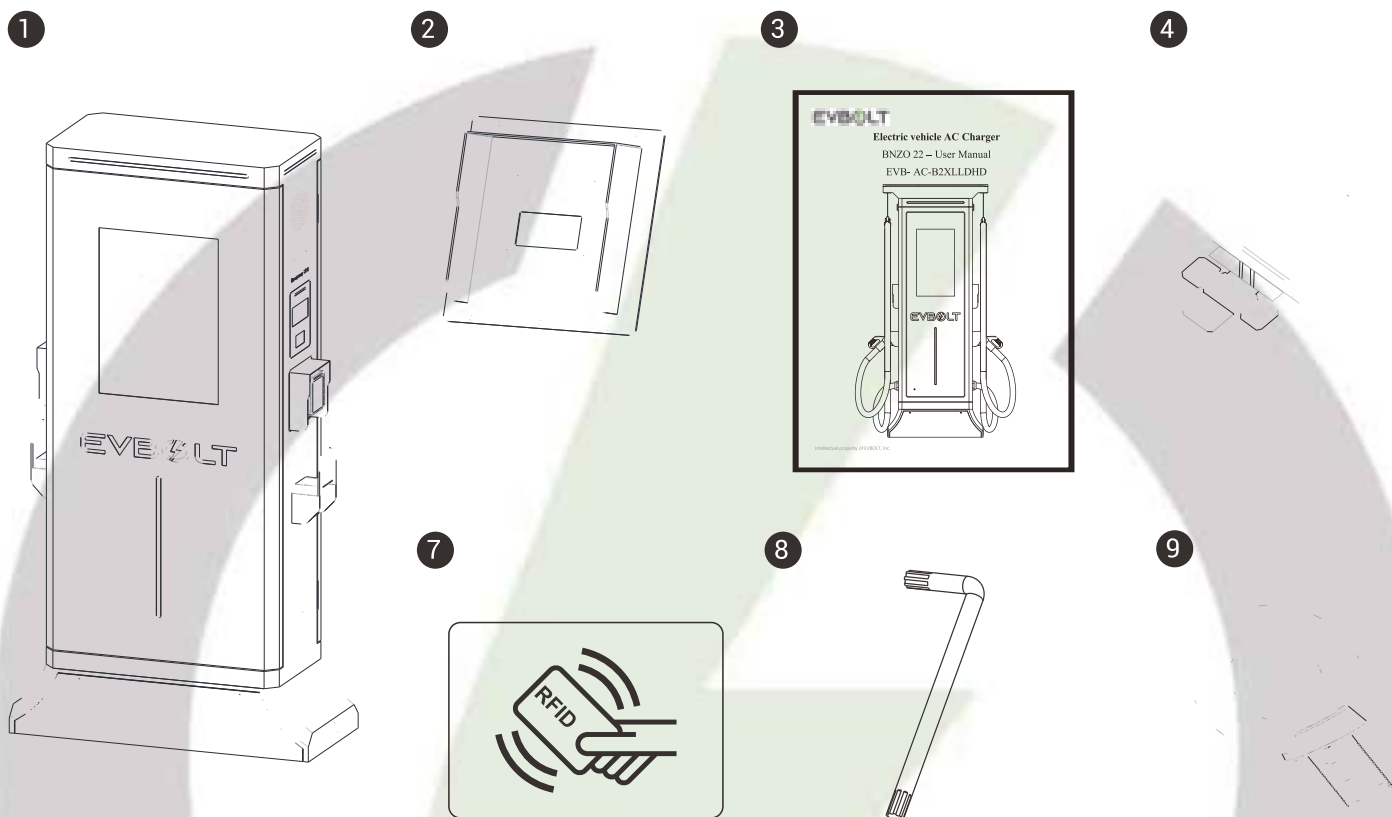


- Plan all work
- Turn off power (work with live parts de-energized whenever possible)
- LOTO (Lock Out, Tag Out)
- Live electrical work permit (input terminals with HV after door open)
- Use personal protective equipment (PPE)
- Safe workplace conditions and space
- Adhere to other occupational health, safety and security codes, such as those published by OSHA

9.2 Safety Requirements

- Read this user manual thoroughly and make sure to review all local building and electrical codes before installing the AC charger. A qualified technician should install the AC charger according to the user manual and local safety regulations
- Use appropriate protection when connecting to the main power distribution cable
- Type B, C or D breakers with a rating current of 60Amp should be installed in the upstream AC distribution box for each connector
- Disconnect switch for each ungrounded conductor of AC input shall be provided by others in accordance with the National Electric Code, ANSI/ NFPA 70
- Verify that the connector is properly grounded. The ground connection must be bonded in the upstream power supply for proper operation. Check all physical connections, including the wire box terminals, electrical panel(s), and wire box. In residential power supplies, check the bond between ground and neutral at the main panel. If connected to a step- down transformer, contact the transformer's manufacturer for direction on how to bond the ground connection

9.3 Packing List



No.	Product Name	Qty	Notes
1	AC Charger (With Charging Cables)	1	
2	POS Fixing board	2	
3	User Manual	1	
4	Expansion Screw	4	
5	RFID Card (RFID Version Only)	2	
6	Torx/T30 L-Wrench	1	
7	Eyebolt	4	

9.4 Tools and Materials Required

9.4.1 Recommended Tools for Installation

Type	Description
Philips Screwdriver	No. 2 and 3
Torx Wrench	Specification 16*18mm\17*19mm
Socket Screwdriver	No. 8, 10, 17 and 19
Electrical Tape	Black / 15mm (0.6”) Width
AC Input Cable	2 x 6 AWG three-core cable (L1, L2, PE)
Ring Terminal	1. Ring Terminal for L1, L2, PE
Needle nose Pliers	
Crane/ Forklift	<500 lbs. (1102 kg)

9.4.2 Recommended Tools for Inspection & Commissioning

Type	Description
EV or EV Simulator	Meet SAE J1772 Standard
Multi Meter	1000V
Current Probe	400Amp
RFID Authorized Card	
RFID No Valid Card	
Door Key	
Needle-Nose Plier	
Laptop or PC & CAT6 cable	For Charger Configuration
Wi-Fi /4G signal quality checker	Recommended
Wi-Fi /4G signal quality checker	Recommended
Philips Screwdriver	No. 2 and 3
Socket Screwdriver	No. 8, 10, 17 and 19

9.5 Unpacking the Charger

- The product is alternate current (AC) charger and the packing design passed the packaging simulation test. If the packaging damage caused by overturning, falling or external impact during transportation, it may cause the product damage or defects. If there is any serious damage to the packaging when receiving the goods, please notify the supplier about your findings.
- The product is delivered by transport company to warehouse or specified location where it will be handed over. Transporting the charger to its final location (last mile service) is not standard included in the order.
- NOTICE: The delivery truck unloads the pallet carrying the charger. The movement of the charger to its final location is the responsibility of the customer / contractor.

If the packaging is damaged

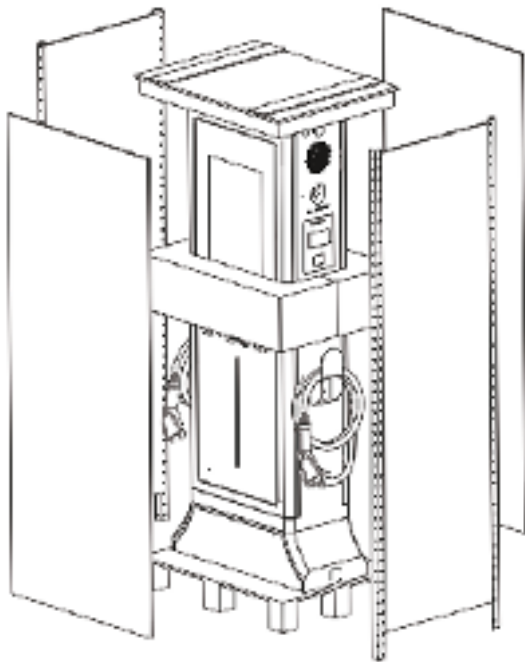
- Do not refuse the shipment / receipt.
- Make a notation on the delivery receipt and inspect cabinet for damage.
- If damage is discovered, leave cabinet in original package and request immediate inspection from carrier within 3 days of delivery.
- Contact the supplier by mail or phone to address your findings.



WARNING!

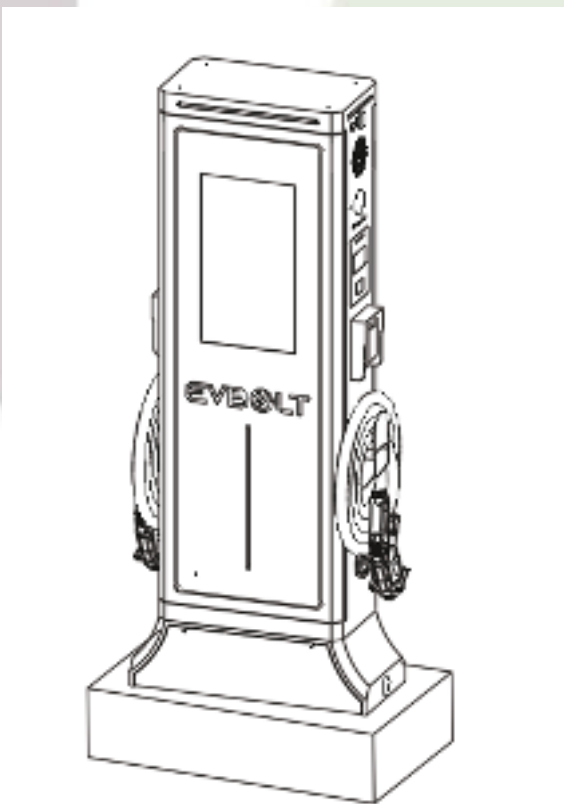
Charger weight might be 224.8 lbs. (102 kg). Charger with package might be 283.2 lbs. (128.5 kg). Be careful during unpack process.

STEP 1



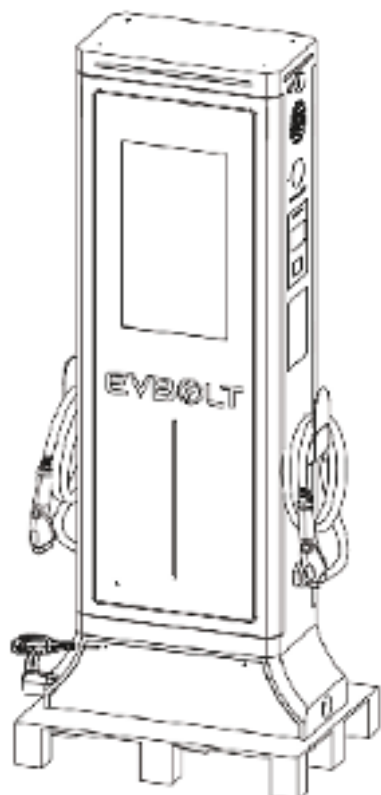
Remove the Surrounding boards

STEP 2

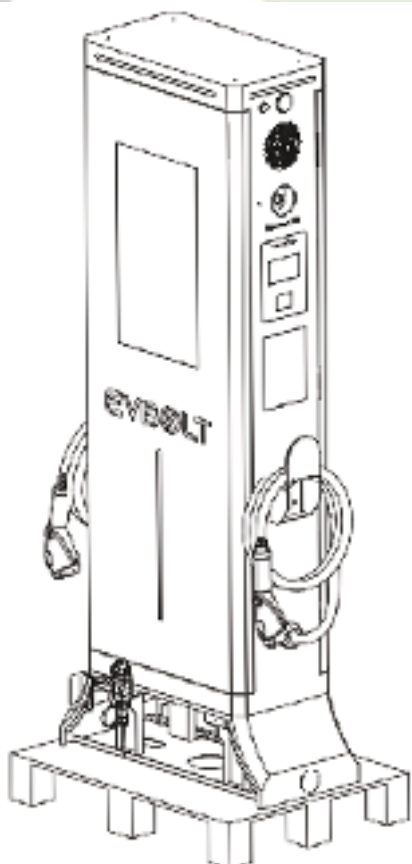


Remove the carton and packing cushion and film

STEP 3



Open the front and back plate to expose the M12 Screws



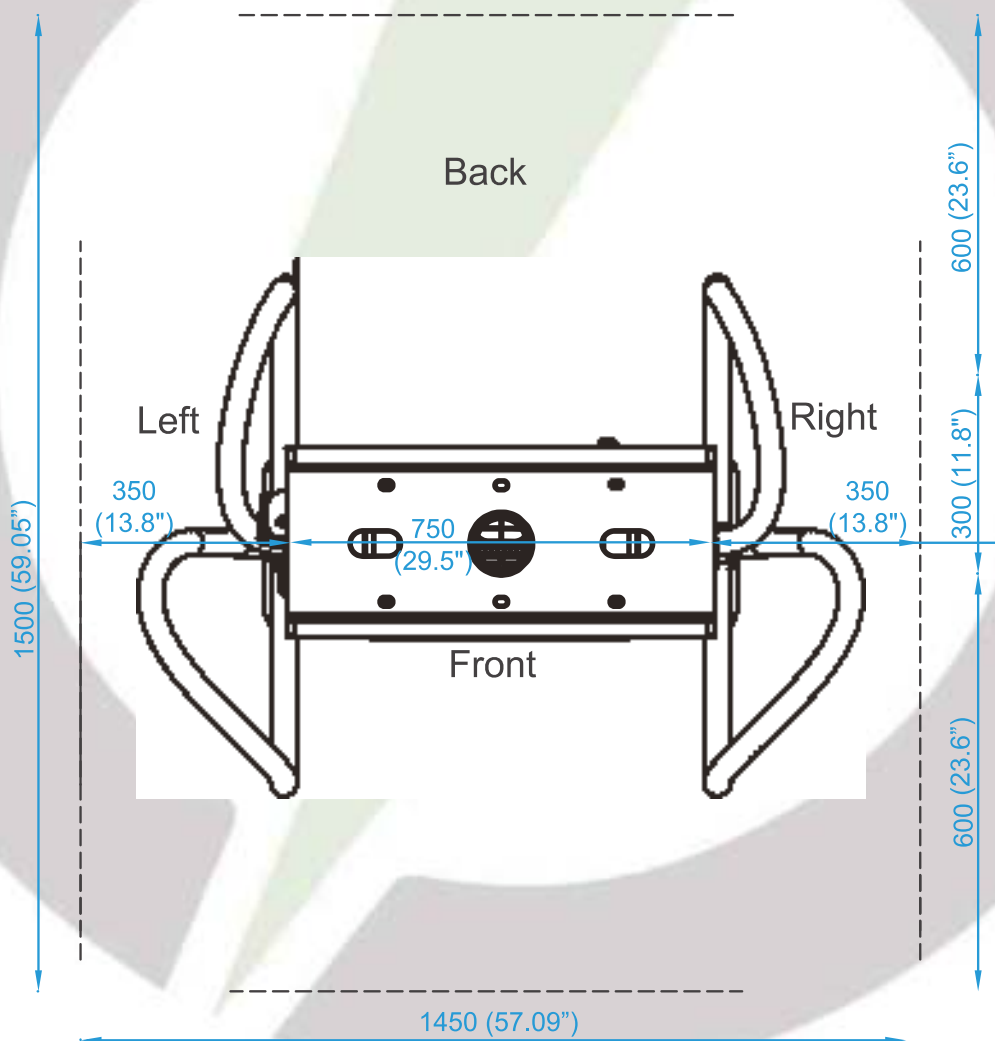
Remove the 4 pcs of fixing M12 Screws

9.6 Installation Procedure

9.6.1 Required Space for Placing and Maintaining

Require a min. space of 57.09 x 59.05 inch (1450 x 1500 mm). This space is calculated as follows:

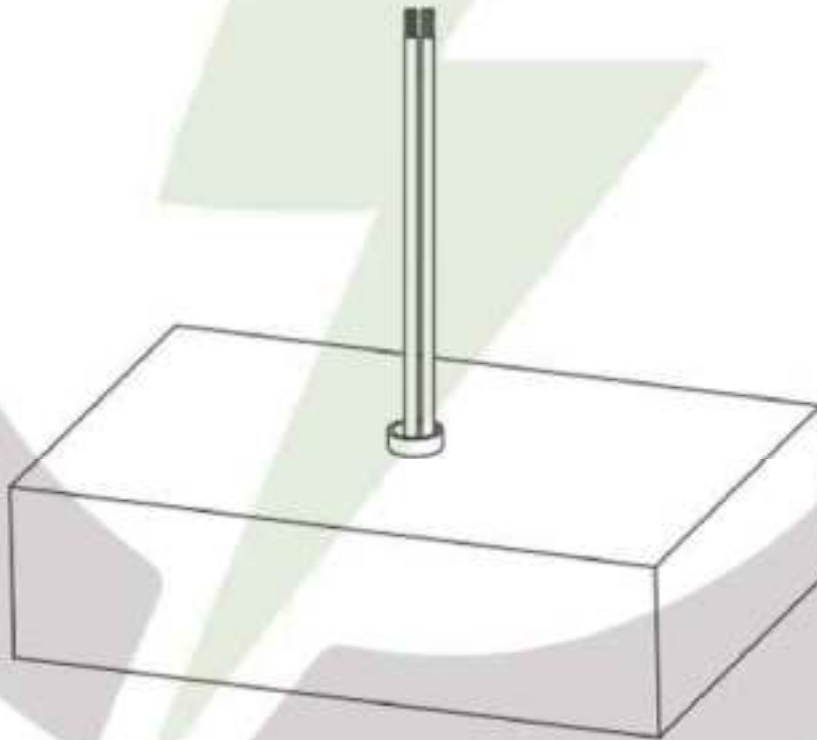
- Charger Size WxDxH: 29.5 x 11.8 x 71.3 inches (750 x 300 x 1810 mm)
- Front side 23.6 inch (600 mm), in order to operate dashboard.
- Left and right side 13.8 inch (350 mm), in order to open left and right door.
- Backside 23.6 inch (600 mm), in order to open the bracket door.



9.6.2 Built Concrete Base

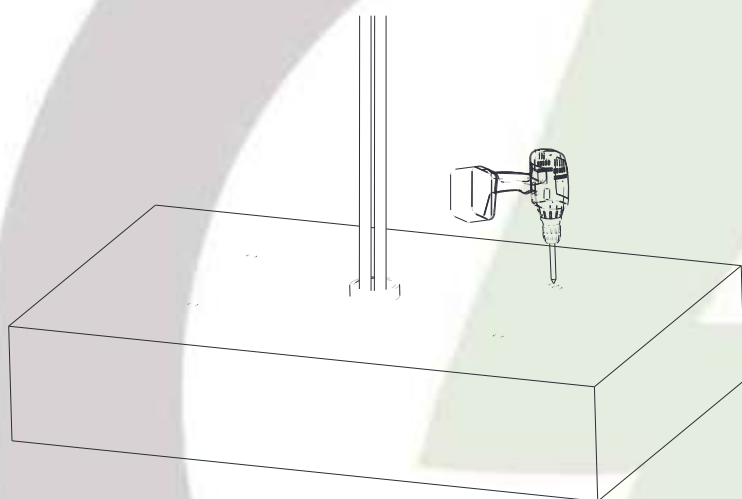
STEP 1

- Build 40.16" x 16.93" x 7.87" (1020mm x 430mm x 200mm) concrete base on the level to stand charger in advance.
- 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.
- In order to meet this positioning requirement, it is recommended to use positioning wood fixture. Please make the fixture according to the following drawing.

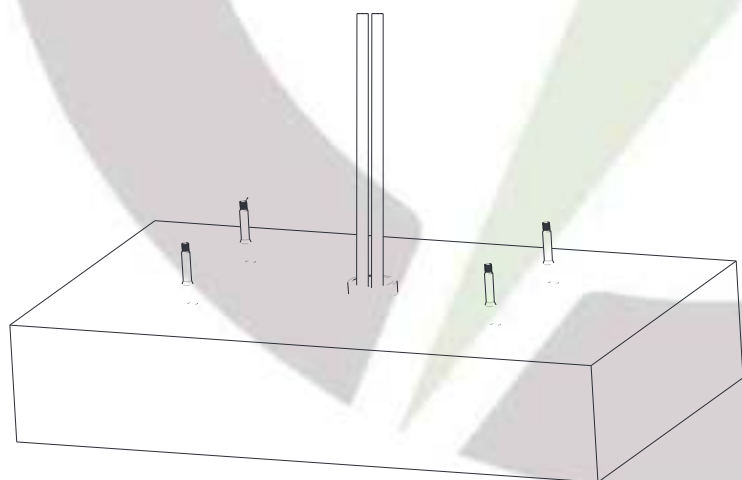


STEP 2

- Extend two 3-core AC input cables from conduit of concrete base, AC cables expose at least 23.62" (600mm), and the two cables should be connected with the corresponding circuit breaker.
- The conductor cross sectional area of input power wires should be not less than 6 AWG (13.3mm²). If internet is connected via Ethernet, at least 71" (1800mm) of the Ethernet cable must be exposed from the conduit.

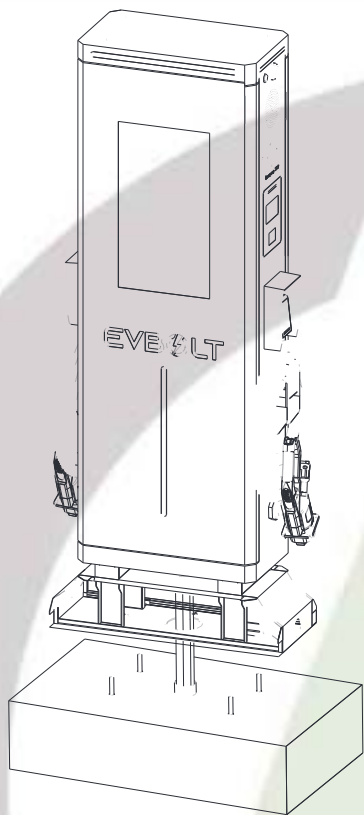


Drill 4 holes on concrete (4 – Ø 0.63")

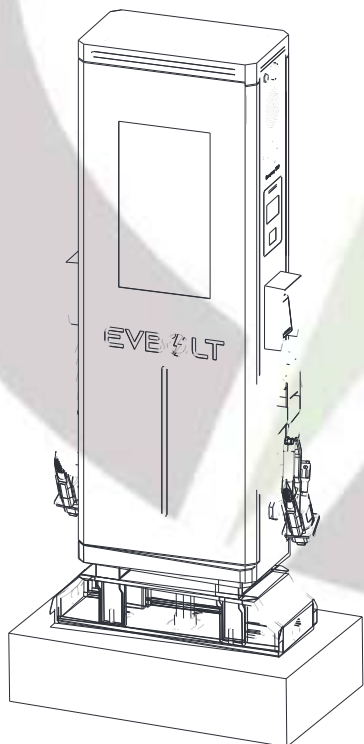


Bury expansive screws (M12*150) in the concrete

STEP 1



Lift and replace the charger on concrete base, making sure the installed screws are aligned in the holes.



Pull the input cable through bottom hole of charger; fasten 8 pcs of M12 screw nuts and 4 pcs of M12 washers on 4 pcs of M12 screw of concrete base (2 nuts for each screw) to secure the charger. Then fix the base covers in the charger base.