Instruction Manual

(Installation, Operation, and Maintenance)

JC-94F2(1)-350(400)-0T5

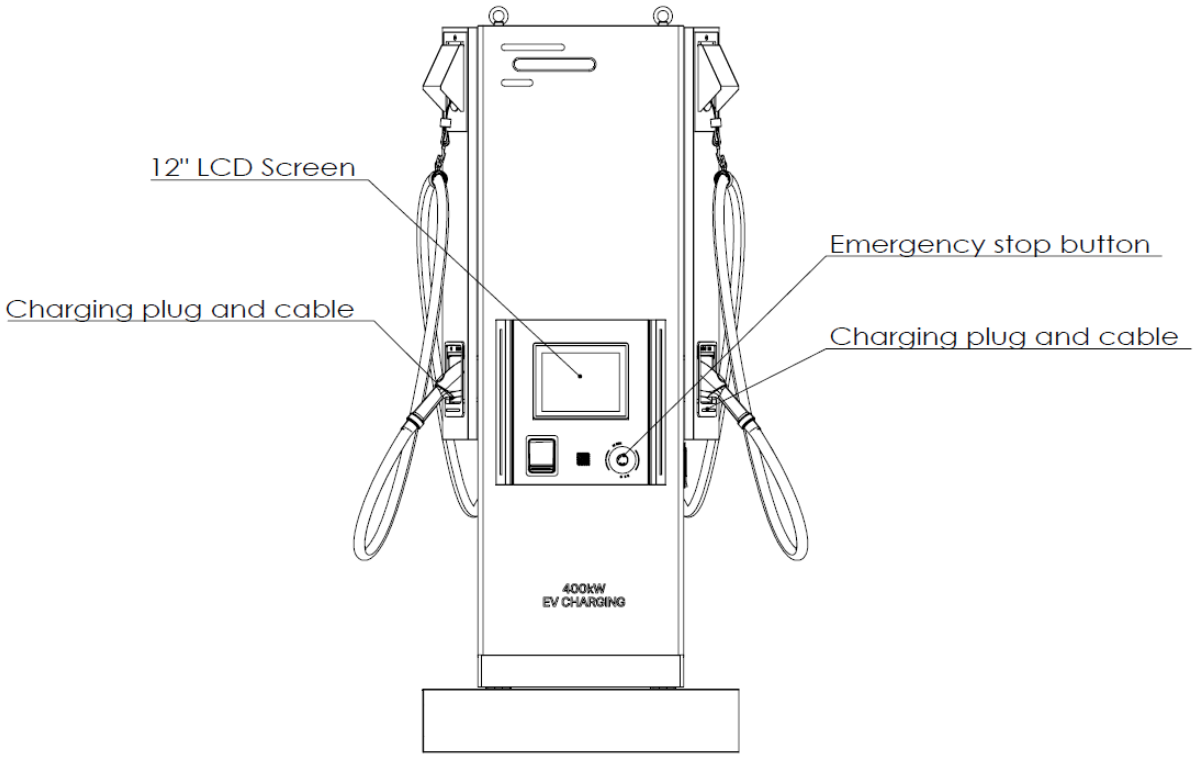
JC-9502-350(400)-CT5

EVSIS

Contents

1. INTRODUCTION

1.1 Features



① Touch screen

- The operation status of the product is displayed on the LCD screen.

② Emergency switch

- Switch that forcefully stops the product in case of an emergency. When the switch is pressed, the product will stops operate.

③ Payment terminal

- Device that authenticates users and transacts payments.

④ Meter

- Device that measures the amount of electricity used

⑤ Circuit Breaker for Control Power (Control Power MCB)

- Device that terminates control power inside the product.

2. PRODUCT INSTALLATION

2.1 Recommended Tools

- The following tools are recommended for DC Fast Charger installation.

① Electric hammer drill (10mm)

② Anchor bolt (10 x 75mm) * 4ea

③ Spanner (19mm)

④ Input [+/-] wiring M12 – 4/0 AWG * 8 Wire

⑤ R, S, T Copper tube terminal 250MCM-M12 for AC Input(400kW) * 6ea

⑥ R, S, T Copper tube terminal 4/0 AWG-M12 for AC Input(350kW) * 6ea

⑦ Dispenser Ground wiring: M8 – 2/0 AWD * 1 Wire

⑧ Power Bank Ground wiring: M8 – 2/0 AWD * 2 Wire

⑨ 1ea, 250MCM, 4/0, 2/0 AWG lug crimper

⑩ Control power AC Input [L1/N] wiring insulated Ferrule – 14 AWG * 2 Wire

⑪ CAN Communication cable wiring insulated Ferrule – 20 AWG * 3C Shield [WHT/BLK/BLU]

⑫ Ferrule crimper

⑬ Hex wrench (10mm)

⑭ Torque wrench, Electric impact wrench

⑮ Electric cutter, Scissor, knife

2.2 Precautions for the main circuit wiring

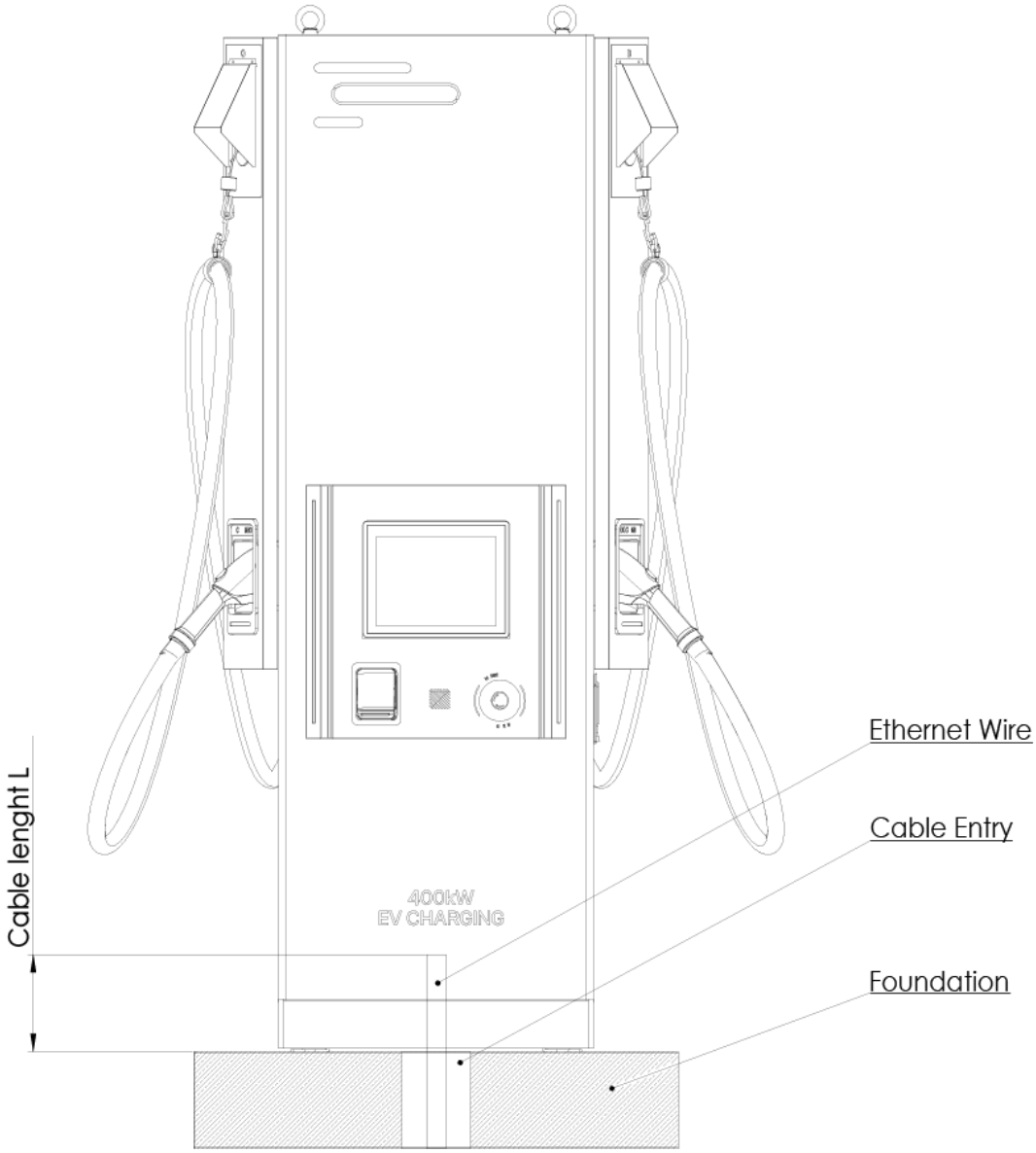
- Use insulated crimp terminals for power input and output terminals. Wire debris may cause abnormalities or malfunctions.
- If the wiring needs to be changed due to nonconformity, make sure that the input power is turned off before rewiring takes place. It is dangerous to begin rewiring immediately after turning off the power since the capacitor inside the charger is charged with high voltage.
- To prevent electric shock, be sure to ground the product using the special type 3 grounding method. The grounding resistance should be 10 Ω or less.
- Connect the product to the dedicated ground terminal. Do not use the case or chassis as a grounding terminal.
- For the grounding wire, use a wire with a thickness of 10 ㎟ or more, and wire it as short as possible.
- Apply the specified torque for the terminal screws. If the screw is loose, it may cause a short circuit or malfunction. If the screw has been excessively tightened, it may cause a short circuit or malfunction due to damage to screws or terminal blocks.
- Use 167℉, 600V copper wire or higher for the input wire.
- Install in accordance with the power supplier's specifications and electrical safety regulations for detailed specifications.

2.3 Installation – Dispenser

- Installation Overview

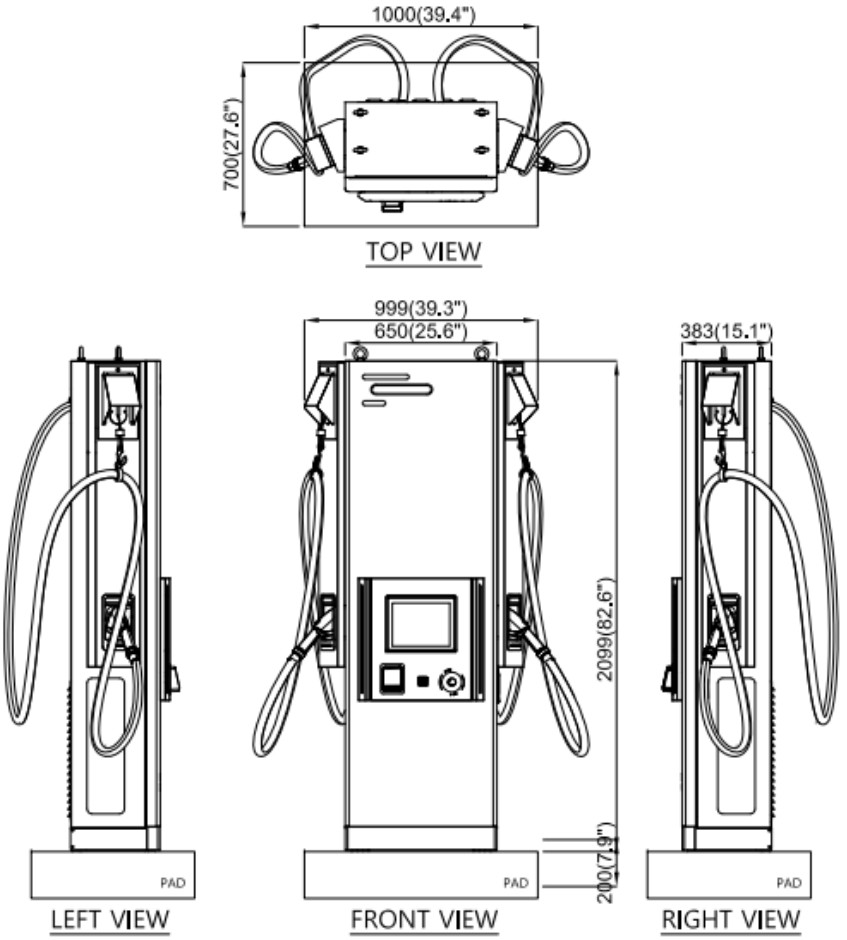
Electrical Input Requirements	Input 1CH Voltage : 150~1,000VDC(Max) 2CH Voltage : 150~1,000VDC(Max)
	Input 1CH Current : 500A(Max), Max power : 350kW or 400kW 2CH Current : 500A(Max), Max power : 350kW or 400kW
Location	This charger has 1 door, 2 air intake and 1 air outlet. For proper air circulation and cooling, a distance of 27.5 inches on the back side and 20 inches on the left and right sides should always be maintained. The clearance also allows the door to be opened for maintenance procedures.
	For relocation or lifting of the charger and mounting pad, a forklift or crane may be used. Provisions for such an action have been included in this document.
	Charger Dimensions : 39.3(W) x 82.6(H) x 15.1(D) inch
Concrete Base	A flat concrete base with a vertical gradient of no more than 5% will be provided, with a provision for electrical service wires to exit the concrete pad in the location as defined in this document.
Mounting Pad	The mounting pads shall be made of concrete cement with approximate dimensions of 39.4 inch(W)* 27.6 inch(D) to accommodate the weight and dimensions of the base. Using a spring washer, nut, and an anchor stud, place the charger on the concrete mounting pad.
Barricade (Bollards)	A suitable bollard must be fitted to restrict the access of the electric vehicle (EV) to the charger. Bollard locations must be in accordance with local regulations.
Cables	The input cable must be copper (3P). Flexible copper is proper. Refer to the table listed on the next page for cable gauge requirements.
	Depending on the situation and cable type, the cables must be embedded in the ground with the proper cable ducts.
Grounding	Reliable, protective grounding must be provided at all times. It is recommended to have a separate, dedicated ground exclusively for the charger in order to ensure the highest degree of safety. The ground resistance should be less than or equal to 4Ω. Copper cable in accordance with the NEC shall be used to connect the charger housing to the external ground.
Breaker	A breaker (3P) with suitable current capacity, dependent upon the charger rating provided, is required. This shall be in accordance with the NEC, typically 1.25 times the full load amperage.
Miscellaneous	Copper lugs (flat type) for the input cable and earth cable should be provided and shall be sized dependent on the size of the cable.
Additional notes	Do not let any flammable, explosive or flammable materials, chemicals, flammable vapors, and/or other dangerous goods within close proximity of the charger.
	The charger is rated IP54. In areas which see flooding, heavy rain, storms, snow, or other harsh weather conditions, recommends erecting a canopy over and above the charger for the equipment's protection.
	Confirm beforehand that the intended installation site has a load capacity sufficient to support this equipment.
	Charging cable length : 18 ft
	Distance between power cabinet and dispenser should be less than 197ft

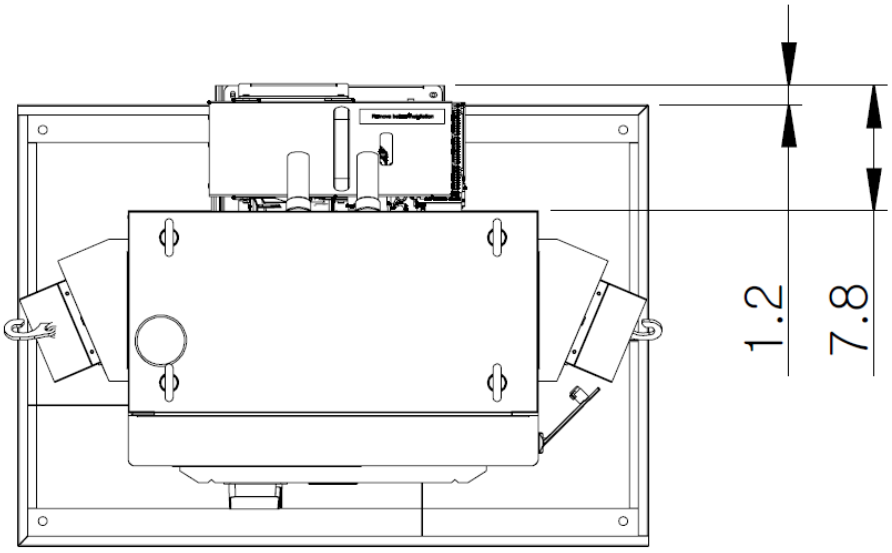
- Consider the location of cable holes and bolts when preparing foundation base and cabling.



2.3.1 Space Requirements

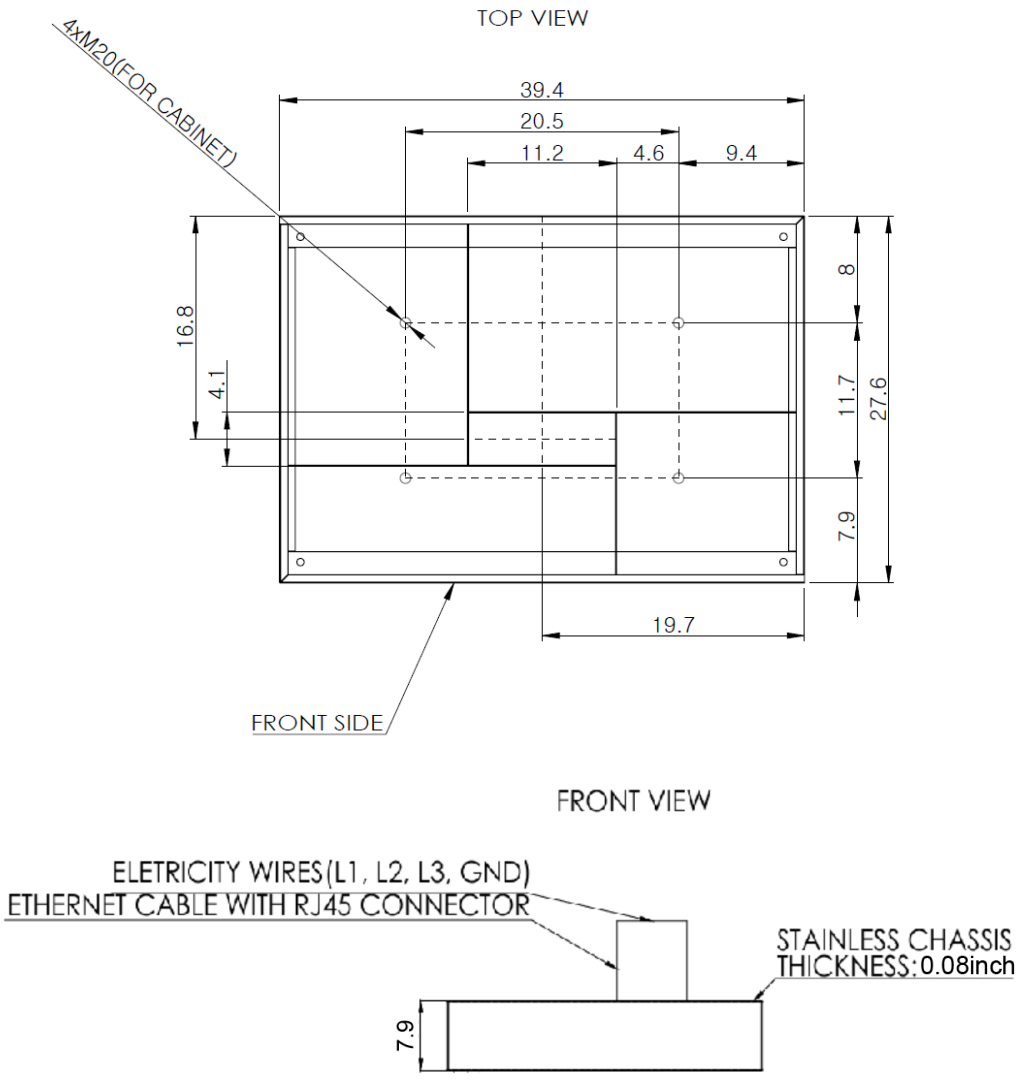
- Measurement (inch)





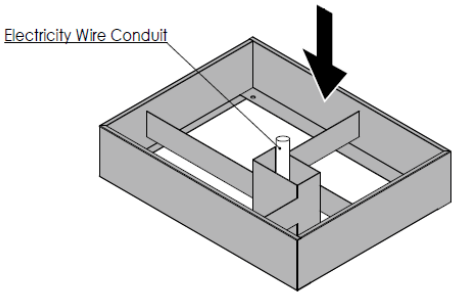
2.3.2 Installing the Foundation

- Construct the stainless steel chassis as the foundation according to the illustration below.
- Fill the base frame with concrete and mount the charger to the concrete base.
- Ensure the location of the cable inlet and the four drill holes (20.5 x 11.7 inch) to secure the cabinet is correct as shown below.
- Unless otherwise agreed, the base will not be included with the product.

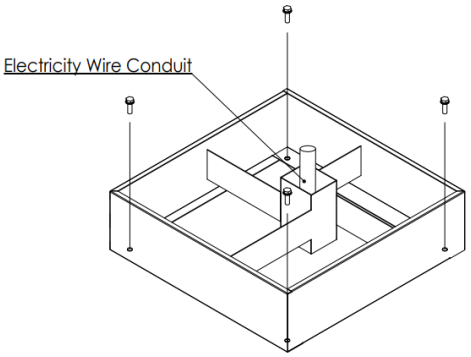


- Recommended Cable / Hole
  - Electricity Cable: Ethernet cable, Power cable, CAN Communication cable, Control power cable
  - Cable Hole: 11.2 x 4.1 inch

① Place the stainless steel chassis on a clean and flat surface.

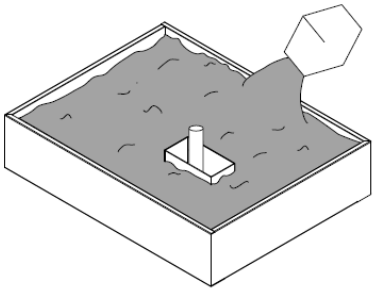


② Secure the chassis to the floor with four screws.



③ Install the electrical wiring and Ethernet cables in each conduit.

④ Pour concrete into the stainless steel chassis until it is level with the top edge.



⑤ Smooth the concrete surface until all of the bubbles are removed.

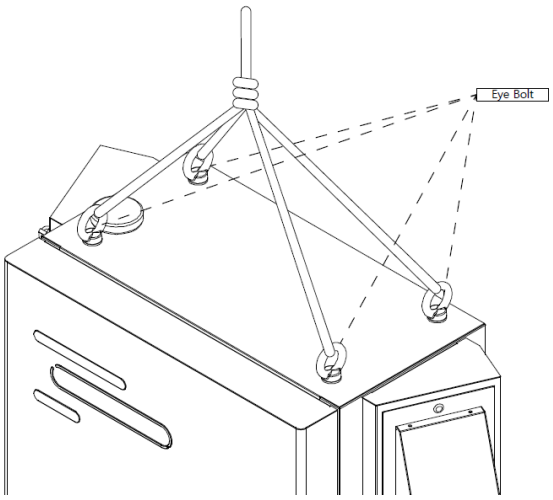
⑥ Wait until the concrete is properly cured before installing the charger.

⑦ Drill four anchor bolt holes in the corners of the 20.5 x 11.7 inch area as shown in the template.

2.3.3 Terminal Wiring

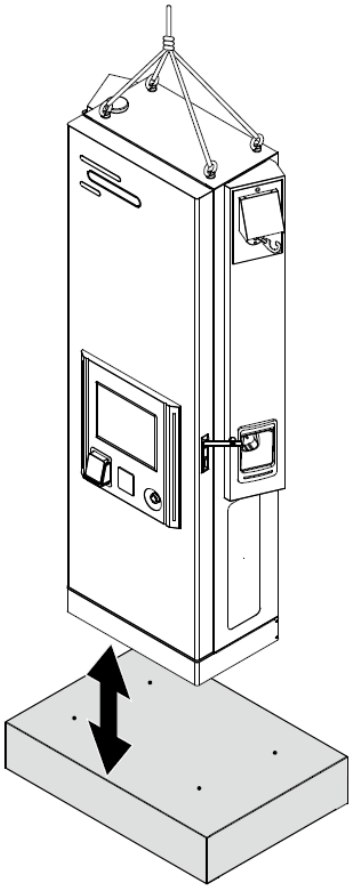
① Remove the cover at the bottom of the charger by removing the four brackets.

② Connect and secure the hoist rope to the two eye bolts.



③ Lift the charger from the palette to the base mount assembly.

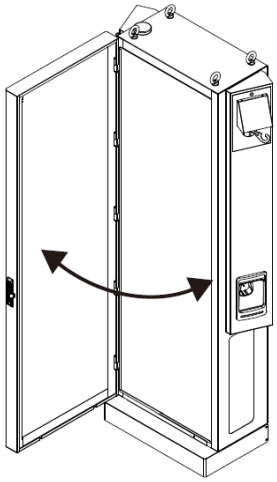
④ Align the charger with a pre-punched hole in the base frame. And fix it with bolts and washers.



⑤ Reassemble the bracket.

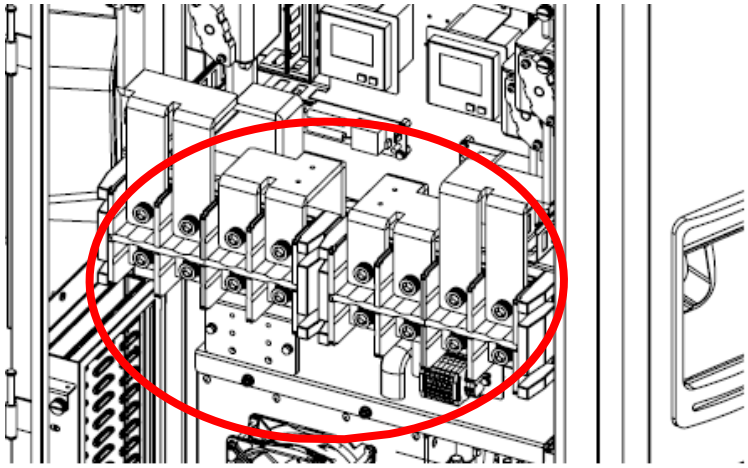
⑥ Open the front door and remove the cover.

※ You need a key to open the front door. The key is included in the accessory pack.



⑦ Connect the DC input.

- The charger requires 1000VDC, 500A current.
- The terminal block marked TB1-1 is 1 channel, and the terminal block marked TB2-1 is 2 channels.
- When you open the front door of the product, you will find the terminal block located in the bottom (first tier).
- Connect the input line correctly to match each pole (+/-).
- The grounding of the fast charger should be done independently.

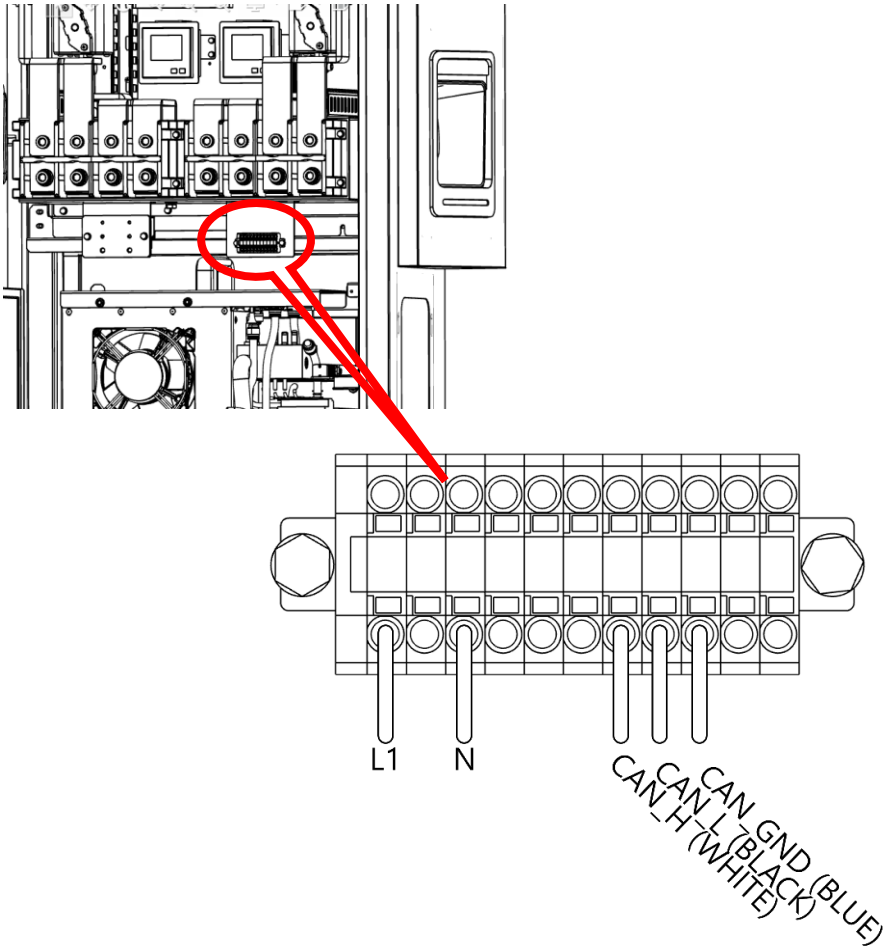


• **Input terminal and wiring specifications**

- Input [+/-] wiring M12 – 4/0 AWG * 8 Wire
- Input bolt : Hex socket head – Tightening torque 20N.m ~ 24N.m
- Ground wiring : M8 – 2/0 AWG

⑧ Connect the AC input and CAN Communication cable

- The charger requires 220VAC, 60Hz.
- The terminal block marked TB1-3 is where the control power and CAN communication cables are connected
- When you open the product cover, there is a terminal block(TB1-3) under the TB2-1 as shown below.
- Connect the AC line correctly to the TB1-3, PIN1 and PIN3 (L1/N).
- Connect the CAN Communication line correctly to the TB1-3, PIN7, 8 and PIN9 (CAN_H / L / GND).



- **Input terminal and wiring specifications**

- Control power AC Input [L1/N] wiring insulated Ferrule – 14 AWG * 2 Wire
- CAN Communication cable wiring insulated Ferrule – 20 AWG * 3C Shield [WHT/BLK/BLU]

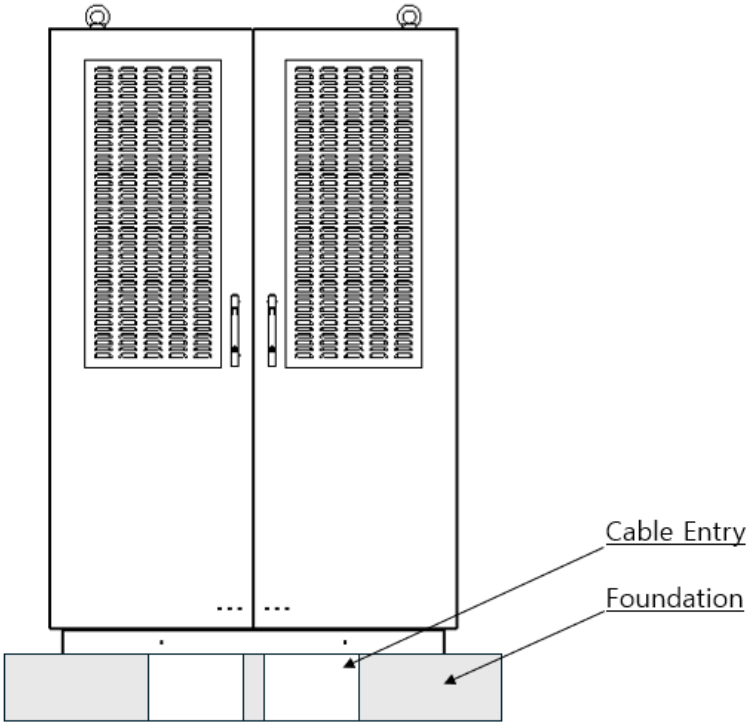
⑨ Reassemble the cover

2.4 Installation - Power Bank

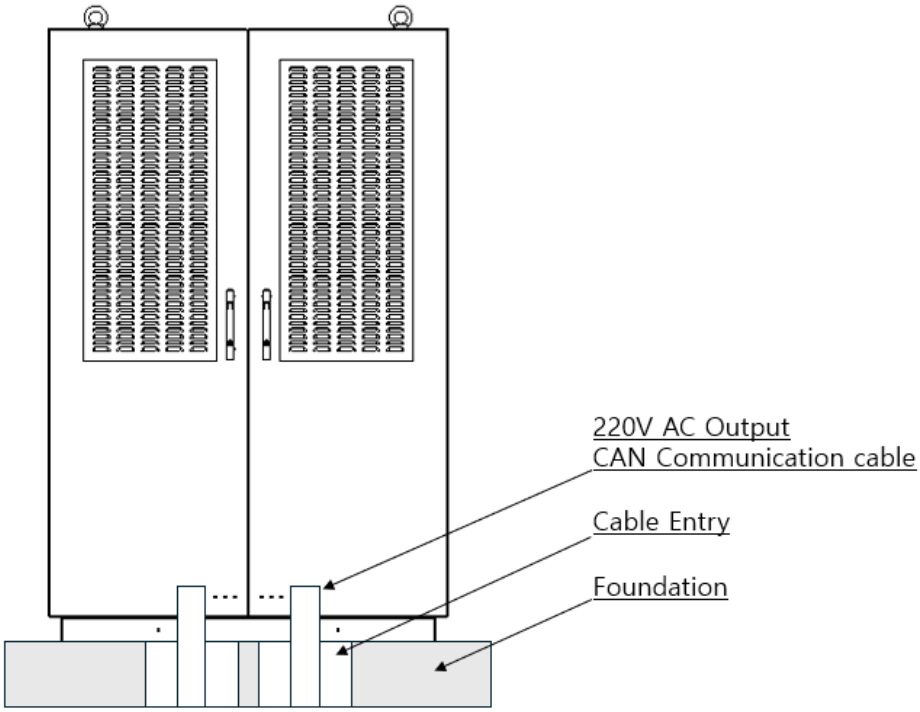
- Installation Overview

Input Requirements	Input voltage: 3Ø3W, 480VAC, 60Hz
	Full Load Amperage (1 Channel Input): 264 Amps (at rated power / 400kW) 232 Amps (at rated power / 350kW) .(2 Channel Input): 264 Amps (at rated power / 400kW) 232 Amps (at rated power / 350kW)
	Breaker Capacity: 400 Amps each Channel
Location	This charger has 2 door, 2 air intake and 2 air outlet. For proper air circulation and cooling, a distance of 27.5 inches on the back side and 20 inches on the left and right sides should always be maintained. The clearance also allows the door to be opened for maintenance procedures.
	For relocation or lifting of the charger and mounting pad, a forklift or crane may be used. Provisions for such an action have been included in this document.
	Charger Dimensions : 48.6(W) x 74.2(H) x 35.7(D) inch
Concrete Base	A flat concrete base with a vertical gradient of no more than 5% will be provided, with a provision for electrical service wires to exit the concrete pad in the location as defined in this document.
Mounting Pad	The mounting pads shall be made of concrete cement with approximate dimensions of 56.5 inch(W)* 43.5 inch(D) to accommodate the weight and dimensions of the base. Using a spring washer, nut, and an anchor stud, place the charger on the concrete mounting pad.
Barricade (Bollards)	A suitable bollard must be fitted to restrict the access of the electric vehicle (EV) to the charger. Bollard locations must be in accordance with local regulations.
Cables	The input cable must be copper (3P). Flexible copper is proper. Refer to the table listed on the next page for cable gauge requirements.
	Depending on the situation and cable type, the cables must be embedded in the ground with the proper cable ducts.
Grounding	Reliable, protective grounding must be provided at all times. It is recommended to have a separate, dedicated ground exclusively for the charger in order to ensure the highest degree of safety. The ground resistance should be less than or equal to 4Ω. Copper cable in accordance with the NEC shall be used to connect the charger housing to the external ground.
Breaker	A breaker (3P) with suitable current capacity, dependent upon the charger rating provided, is required. This shall be in accordance with the NEC, typically 1.25 times the full load amperage.
Miscellaneous	Copper lugs (flat type) for the input cable and earth cable should be provided and shall be sized dependent on the size of the cable.
Additional notes	Do not let any flammable, explosive or flammable materials, chemicals, flammable vapors, and/or other dangerous goods within close proximity of the charger.
	The charger is rated IP54. In areas which see flooding, heavy rain, storms, snow, or other harsh weather conditions, recommends erecting a canopy over and above the charger for the equipment's protection.
	Confirm beforehand that the intended installation site has a load capacity sufficient to support this equipment.
	Distance between power cabinet and dispenser should be less than 197ft

- Consider the location of cable holes and bolts when preparing foundation base and cabling.



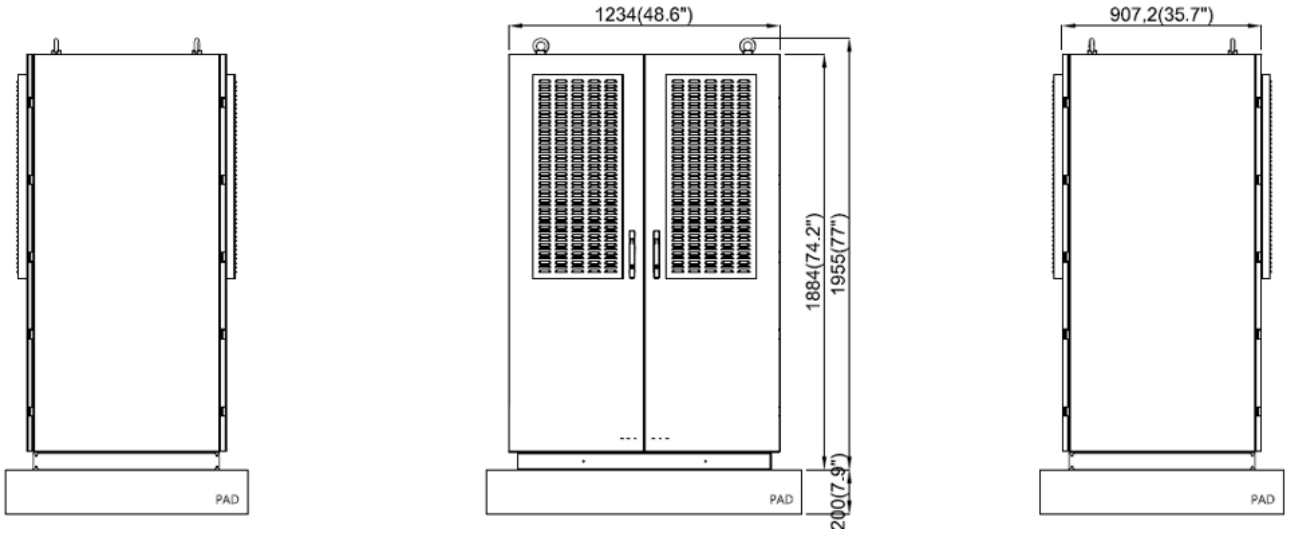
FRONT VIEW

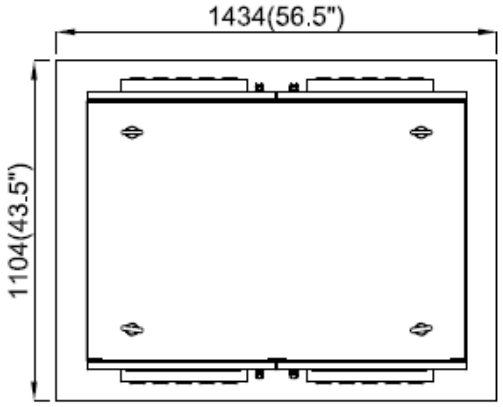


REAR VIEW

2.4.1 Space Requirements

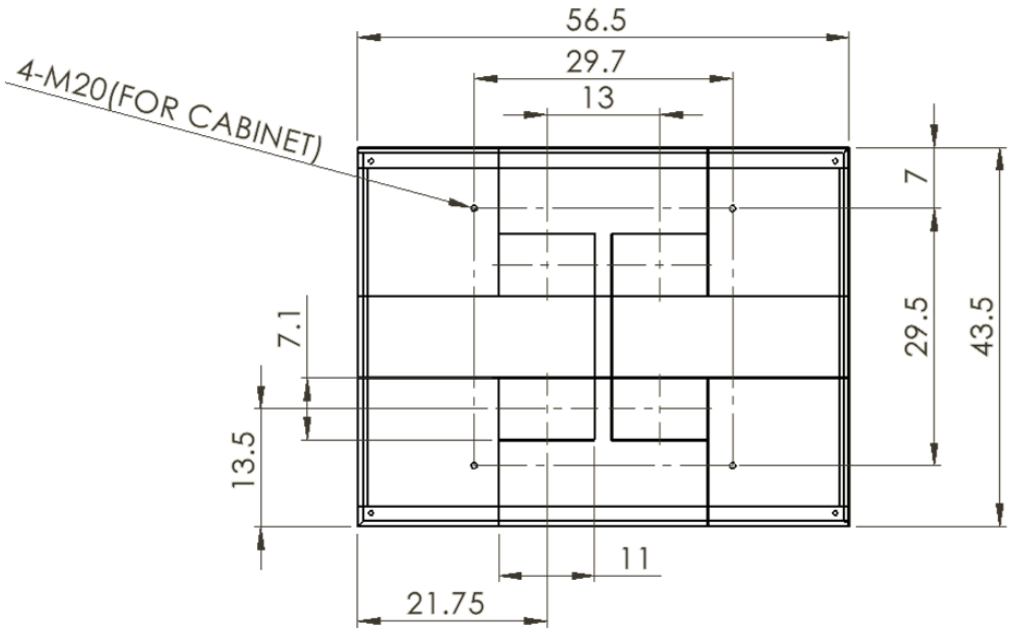
- Measurement (inch)



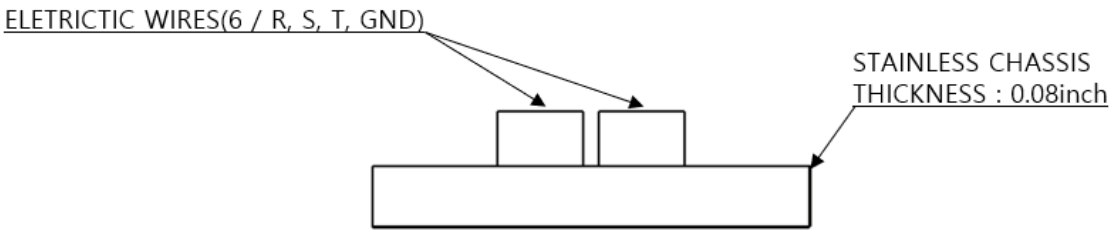


2.4.2 Installing the Foundation

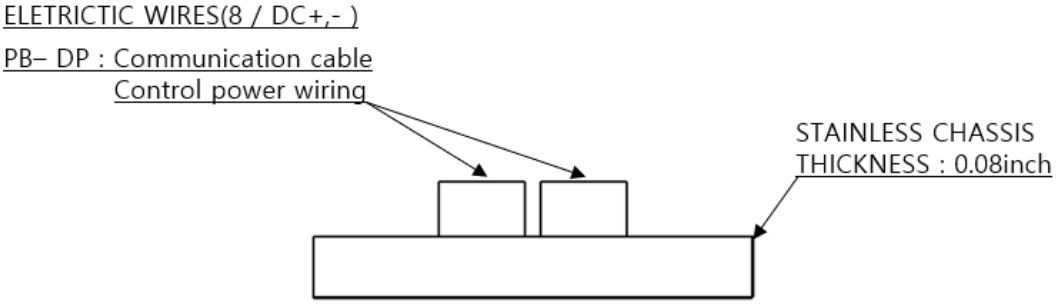
- Construct the stainless steel chassis as the foundation according to the illustration below.
- Fill the base frame with concrete and mount the charger to the concrete base.
- Ensure the location of the cable inlet and the four drill holes (29.7 x 29.5 inch) to secure the cabinet is correct as shown below.
- Unless otherwise agreed, the base will not be included with the product.



FRONT VIEW

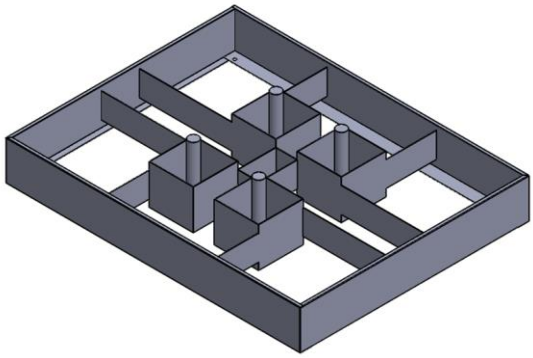


REAR VIEW

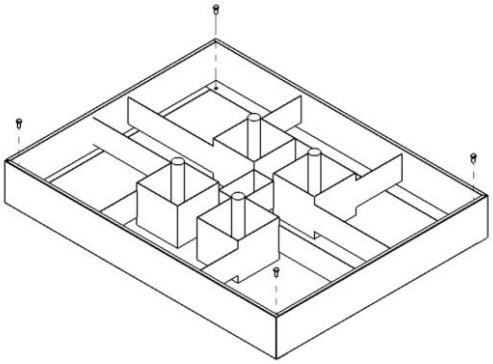


- Recommended Cable / Hole
  - Electricity Cable : AC Power cable, DC Power cable, CAN Communication cable, Control power cable
  - Electricity Hole : 11 x 7.1 inch

⑧ Place the stainless steel chassis on a clean and flat surface.

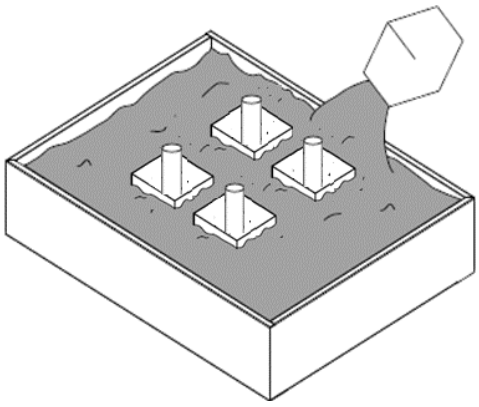


⑨ Secure the chassis to the floor with four screws.



⑩ Install the electrical wiring and Ethernet cables in each conduit.

⑪ Pour concrete into the stainless steel chassis until it is level with the top edge.



⑫ Smooth the concrete surface until all of the bubbles are removed.

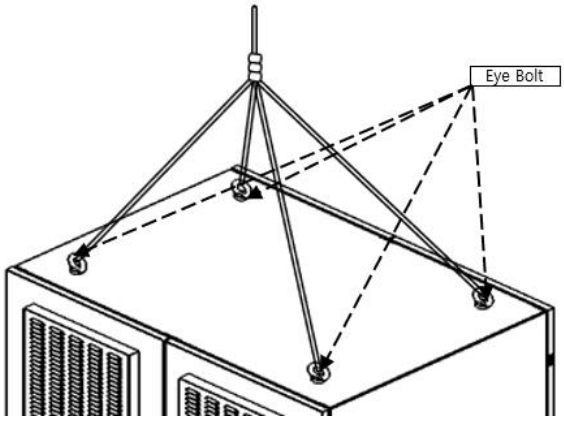
⑬ Wait until the concrete is properly cured before installing the charger.

⑭ Drill four anchor bolt holes in the corners of the 29.7 x 29.5 inch area as shown in the template.

2.4.3 Terminal Wiring

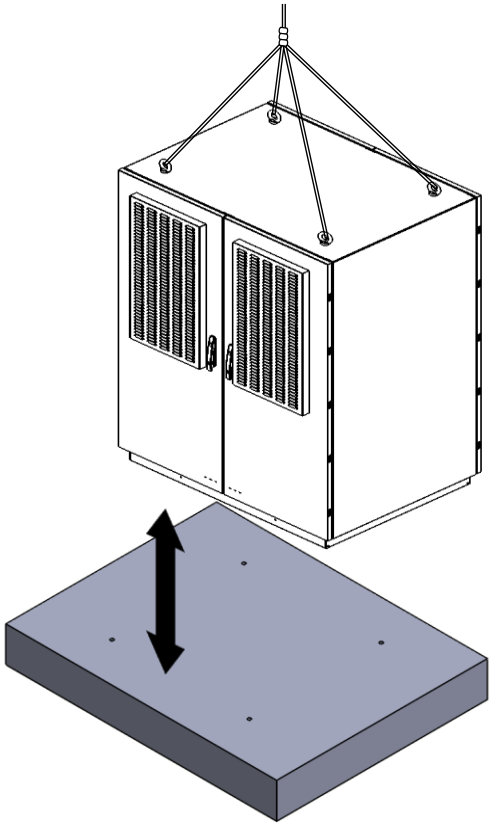
① Remove the cover at the bottom of the charger by removing the four brackets.

② Connect and secure the hoist rope to the two eye bolts.



③ Lift the charger from the palette to the base mount assembly.

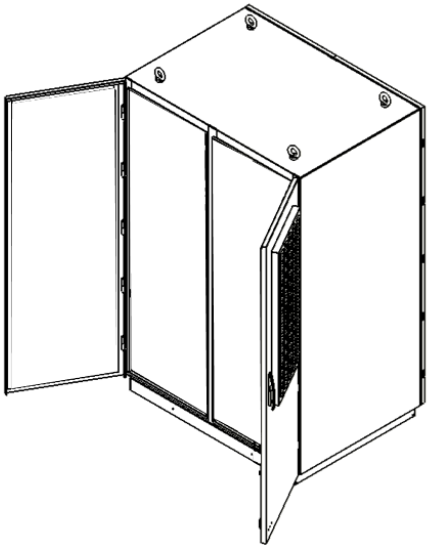
④ Align the charger with a pre-punched hole in the base frame. And fix it with bolts and washers.



⑤ Reassemble the bracket.

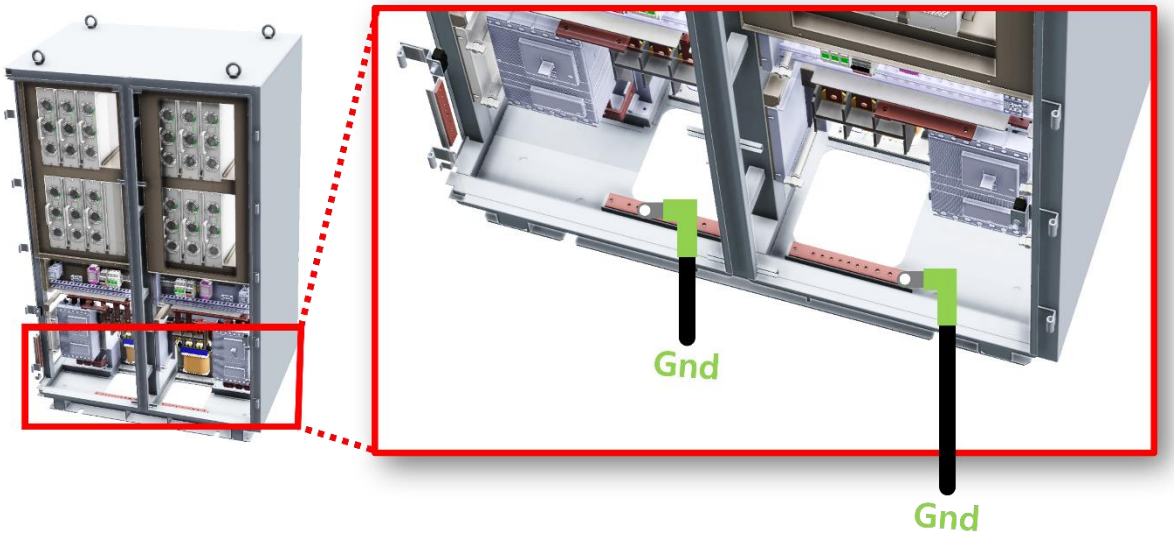
⑥ Open the front door and remove the cover.

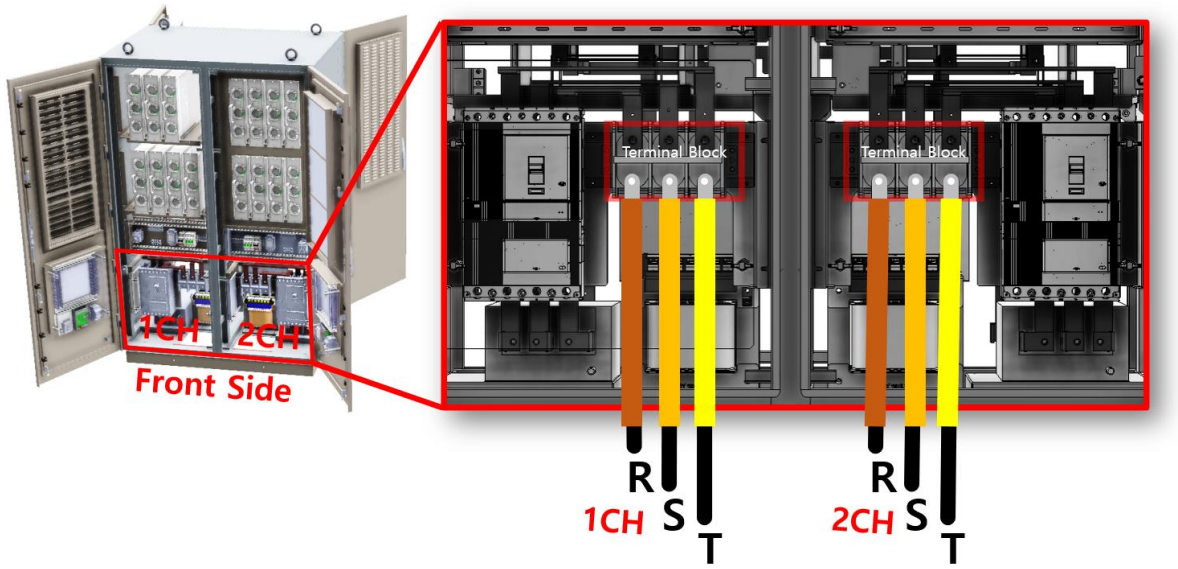
※ You need a key to open the front door. The key is included in the accessory pack.



⑦ Connect the AC input.

- The charger requires 480VAC, 265A (400kW) / 232A (350kW) * 2 current.
- The terminal block marked TB1-1 is 1 channel, and the terminal block marked TB2-1 is 2 channels.
- When you open the front door of the product, you will find the terminal block located in the bottom (first tier).
- Connect the input line correctly to match each pole (R/S/T).
- The grounding of the fast charger should be done independently.



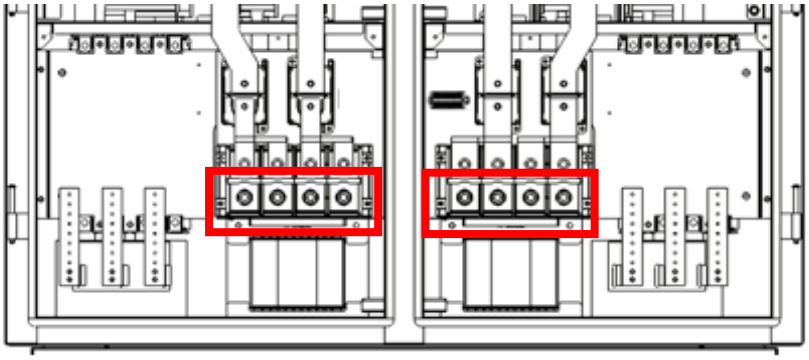


- **AC Input terminals and wiring specifications**
  - Input [R,S,T] wiring M12 – 250MCM(400kW) / 4/0 AWG(350kW)
  - Input bolt : Hexagonal head – Other Connections 20.3N
  - PV[+] wiring M12 – 4/0AWG
  - PV[-] wiring M12 – 4/0AWG
  - Ground wire M8 – 2/0 AWG

⑧ Connect the DC Output

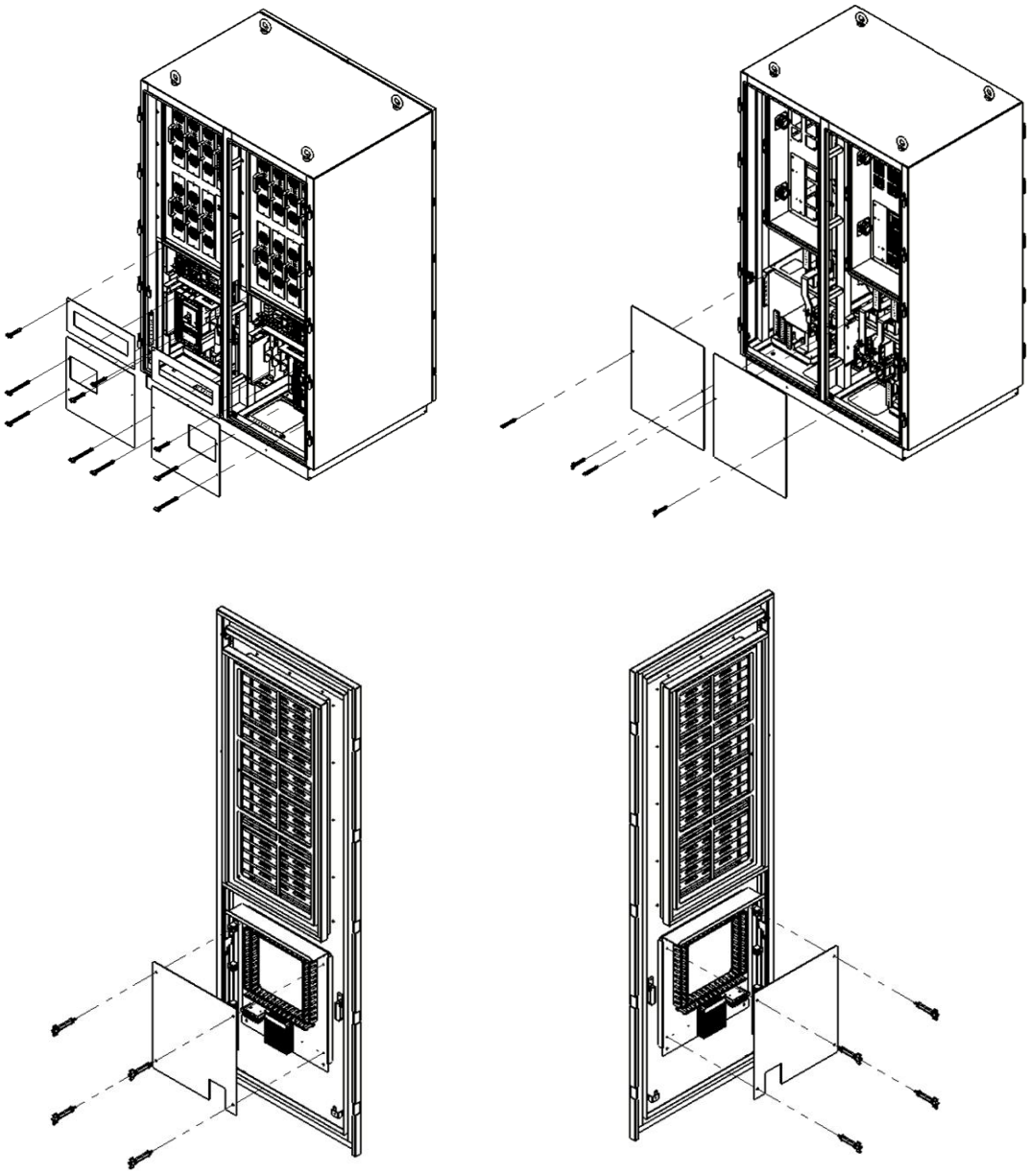
- The charger requires 1,000VDC, (250A*2) current.
- The terminal block marked TB1-4 is 1 channel, and the terminal block marked TB2-3 is 2 channels.
- When you open the product cover, there is a terminal block at the bottom (first tier) as shown below.
- Connect the input line correctly to match each pole (+/-).
-

REAR VIEW



- **DC Output terminals and wiring specifications**
  - Output [+/-] wiring M12 – 4/0 AWG * 8 Wire
  - Output bolt : Hex socket head – Tightening torque 20N.m ~ 24N.m
  - Ground wiring : M8 – 2/0 AWG * 2 Wire

⑨ Reassemble the cover

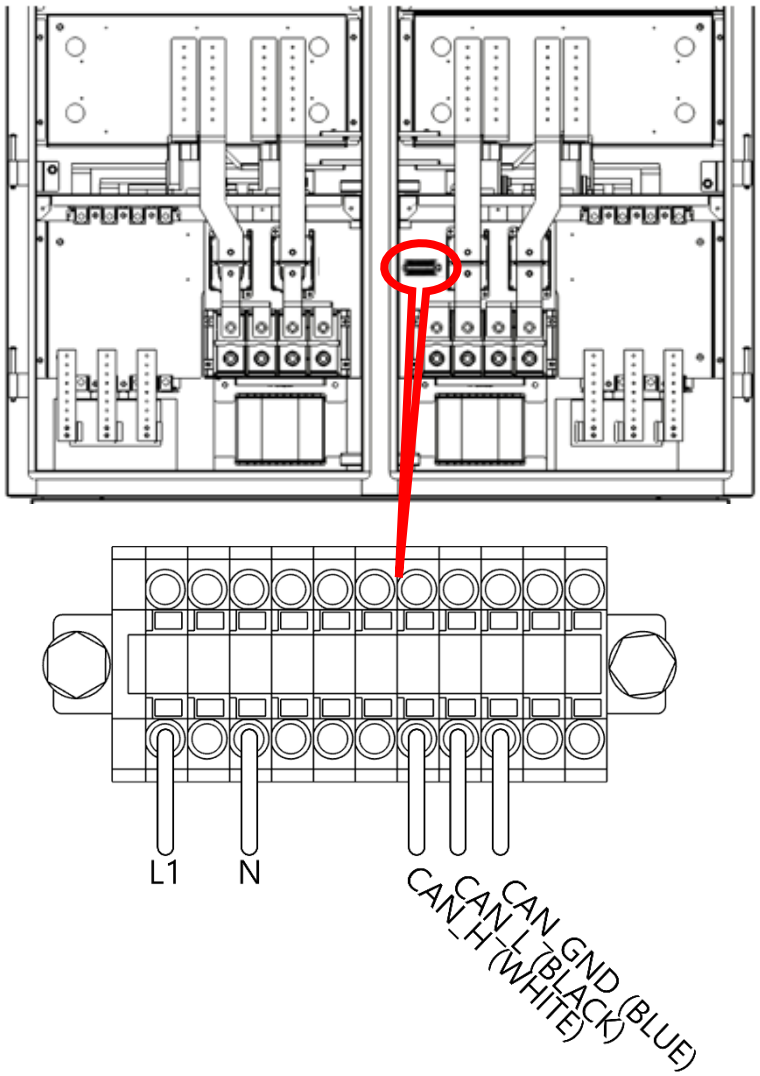


DOOR (RIGHT -LEFT)

⑩ Connect the AC Output and CAN Communication cable

- The charger requires 220VAC, 60Hz.
- The terminal block marked TB1-3 is where the control power and CAN communication cables are connected
- When you open the product cover, there is a terminal block(TB1-3)
- above the TB1-4 as shown below.
- Connect the AC line correctly to the TB1-3, PIN1 and PIN3 (L1/N).
- Connect the CAN Communication line correctly to the TB1-3, PIN7, 8 and PIN9 (CAN_H / L / GND).

REAR VIEW



- **Input terminals and wiring specifications**

- Control power AC Input [L1/N] wiring insulated Ferrule – 14 AWG * 2 Wire
- CAN Communication cable wiring insulated Ferrule – 20 AWG * 3C Shield [WHT/BLK/BLU]

3. OPERATING INSTRUCTIONS

3.1 Charging sequence by authentication method

3.1.1 PIN code / Membership card

① Select the charging port.

② Select either the PIN code or the membership card method.

③ PIN code: Enter the PIN code and click the OK button.

④ Membership card: Scan the membership card.

⑤ ‘Authentication in progress’ will be displayed.

⑥ If authentication is successful, move to step 6.

⊗ If authentication fails

- Return Home: Moves to screen ①.
- Retry: Moves to screen ③.

⑦ Plug the connector into the vehicle.

⑧ ‘Connection in progress’ will be displayed.

⑨ Click the 'Stop Charging' button to finish your charging session.

⑩ Information about your charging session will be displayed.

⑪ After disconnecting the connector, the screen will move back to ①.

3.1.3 Credit card

① Select the charging port.

② Select the credit card method.

③ If recipt is need, please enter the phone number to receive.

④ Scan/insert the credit card.

⑤ The authentication screen will be shown.

⑥ The successful authentication screen will be shown.

⑦ Plug the connector into the vehicle.

⑧ ‘Connection in progress’ will be displayed.

⑨ Click the 'Stop Charging' button to finish your charging session.

⑩ Information about your charging session will be displayed.

⑪ After disconnecting the connector, the screen will move back to ①.

3.1.4 QR code

① Select the charging port.

② Select the QR authentication process.

③ The authentication screen will be shown.

④ The successful authentication screen will be shown.

⑤ Plug the connector into the vehicle.

⑥ ‘Connection in progress’ will be displayed.

⑦ Click the 'Stop Charging' button to finish your charging session.

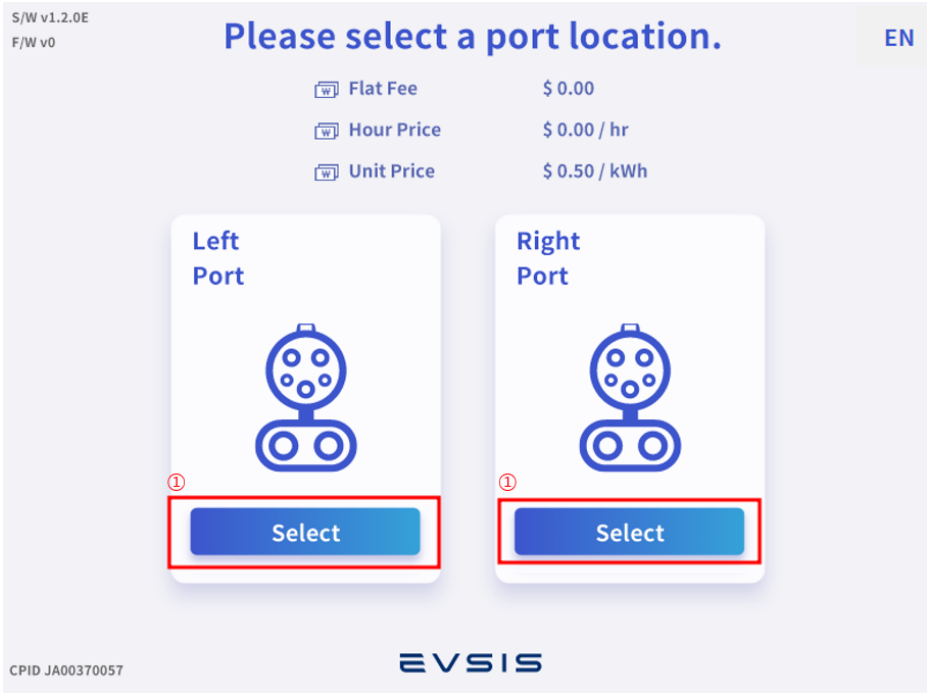
⑧ Information about your charging session will be displayed.

⑨ After disconnecting the connector, the screen will move back to ②.

3.2 UI settings

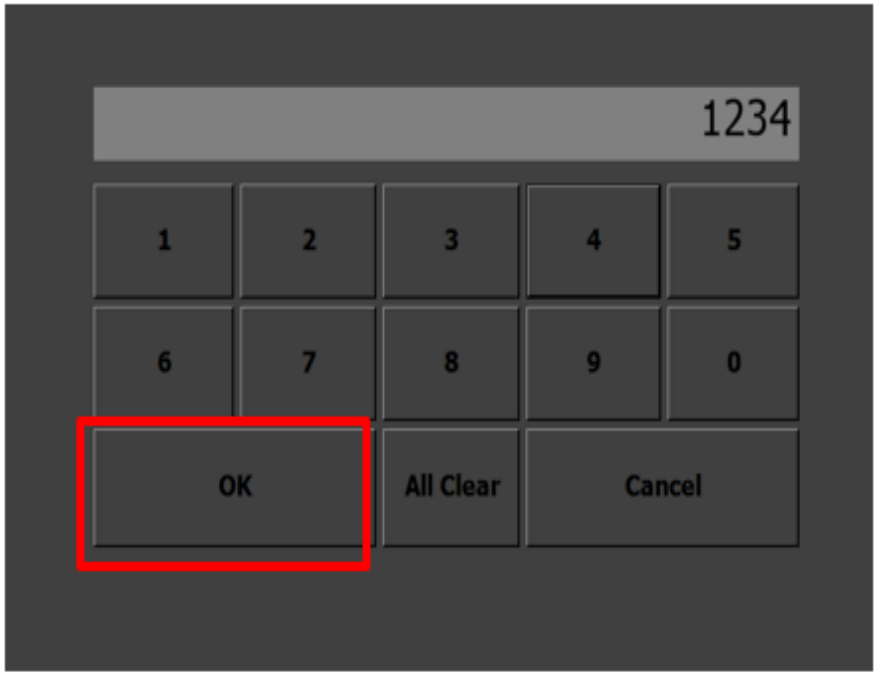
3.2.1 Configuration - Charger

① Double-click the EVSIS logo at the bottom of the home screen.



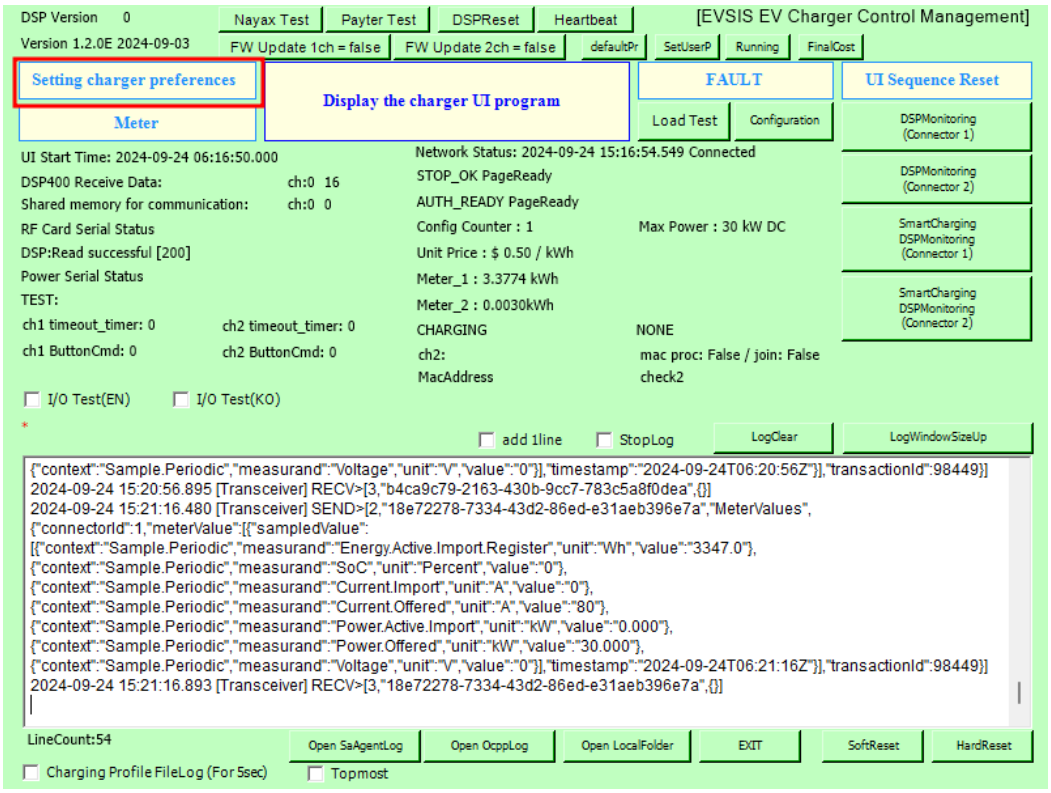
② Enter the number [1234] and click the OK button.

- Your password can be changed in UI settings.

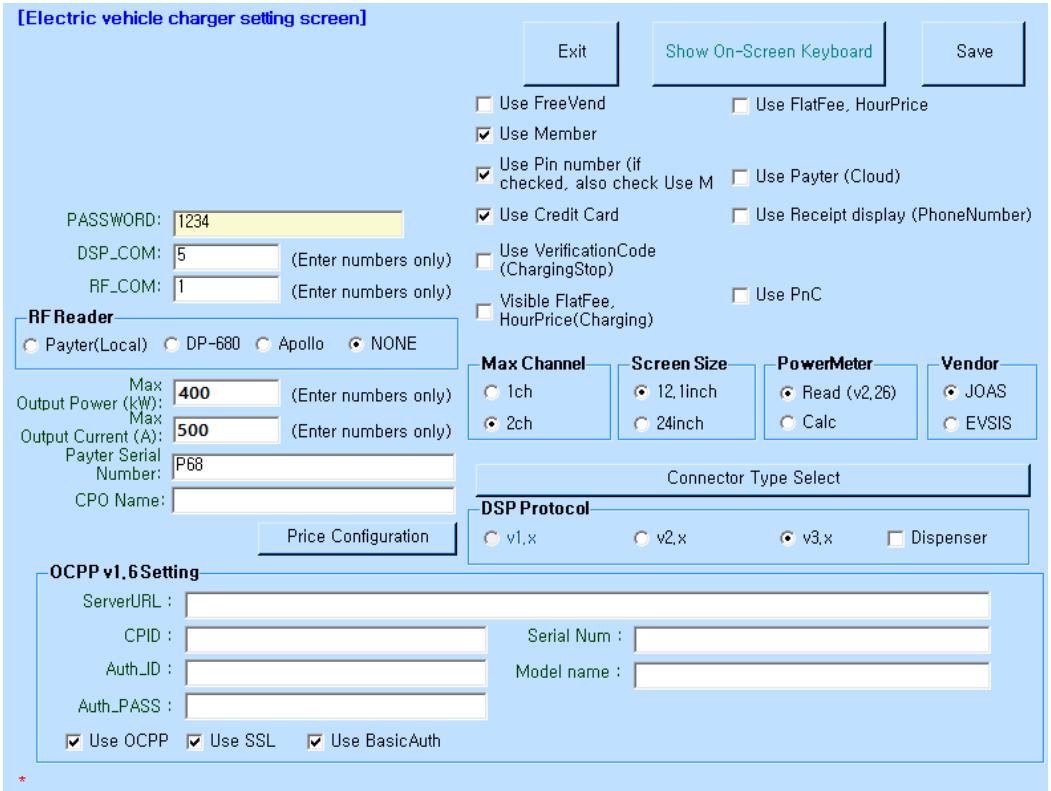


③ Setting the charger preferences

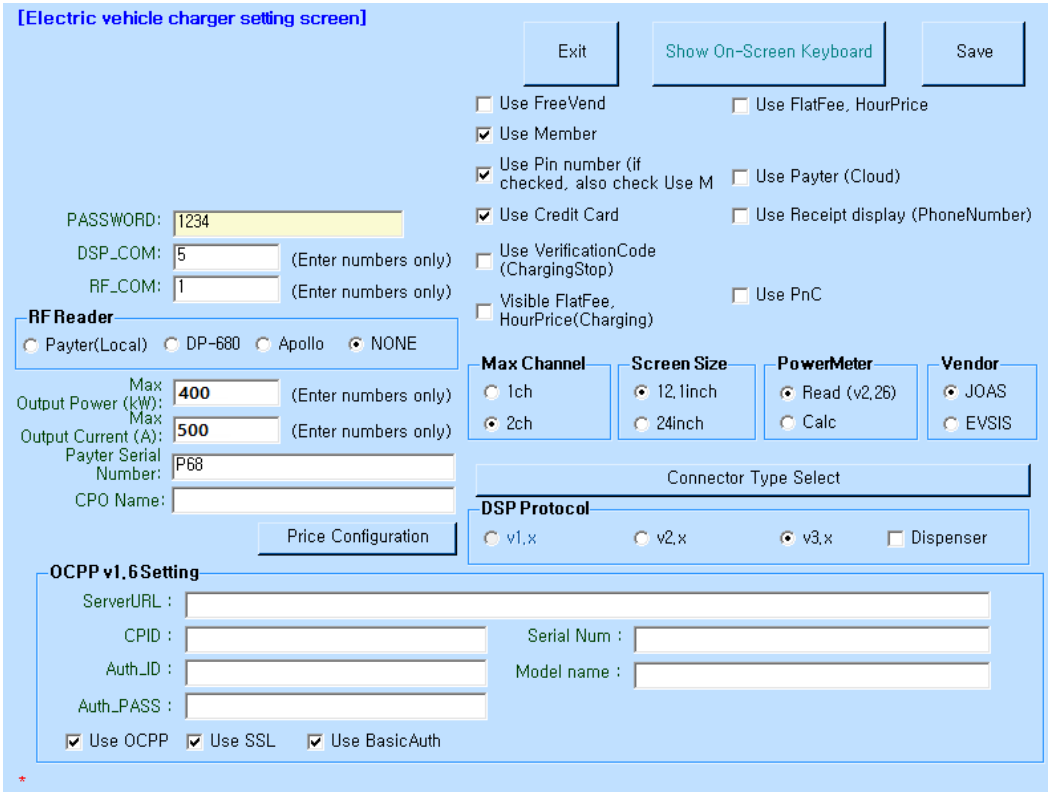
- Click ‘setting charger preferences’ on the screen to set the charger's default settings.



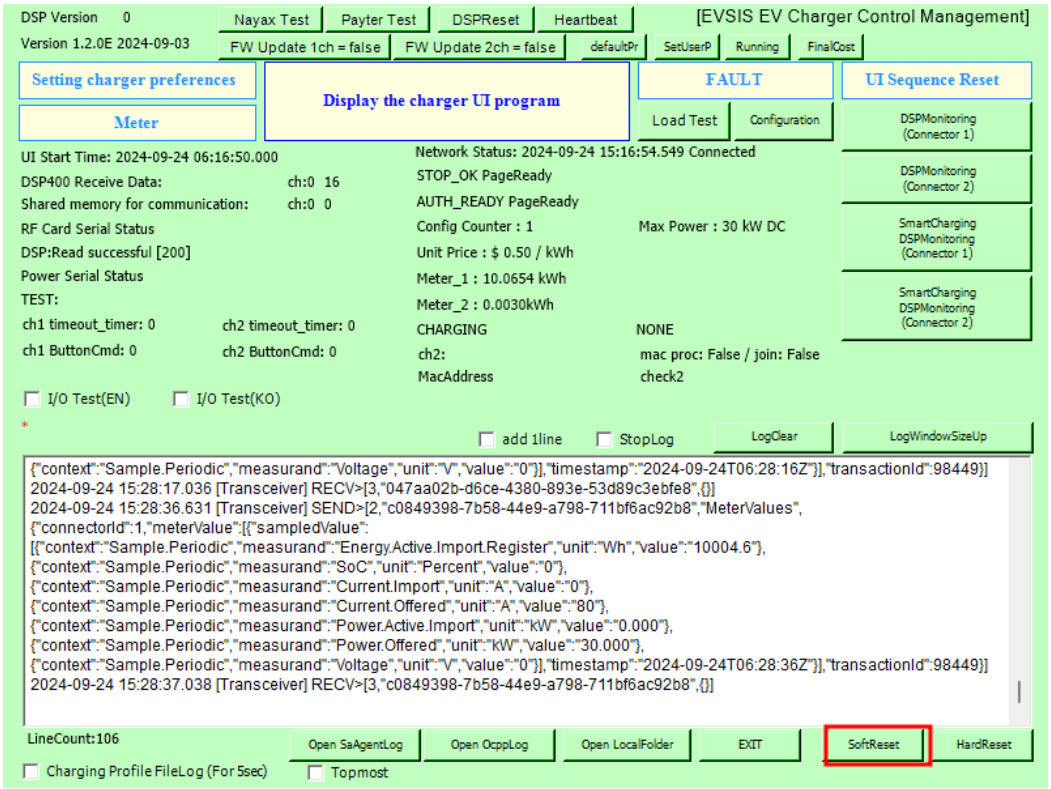
④ Electric vehicle charger settings screen



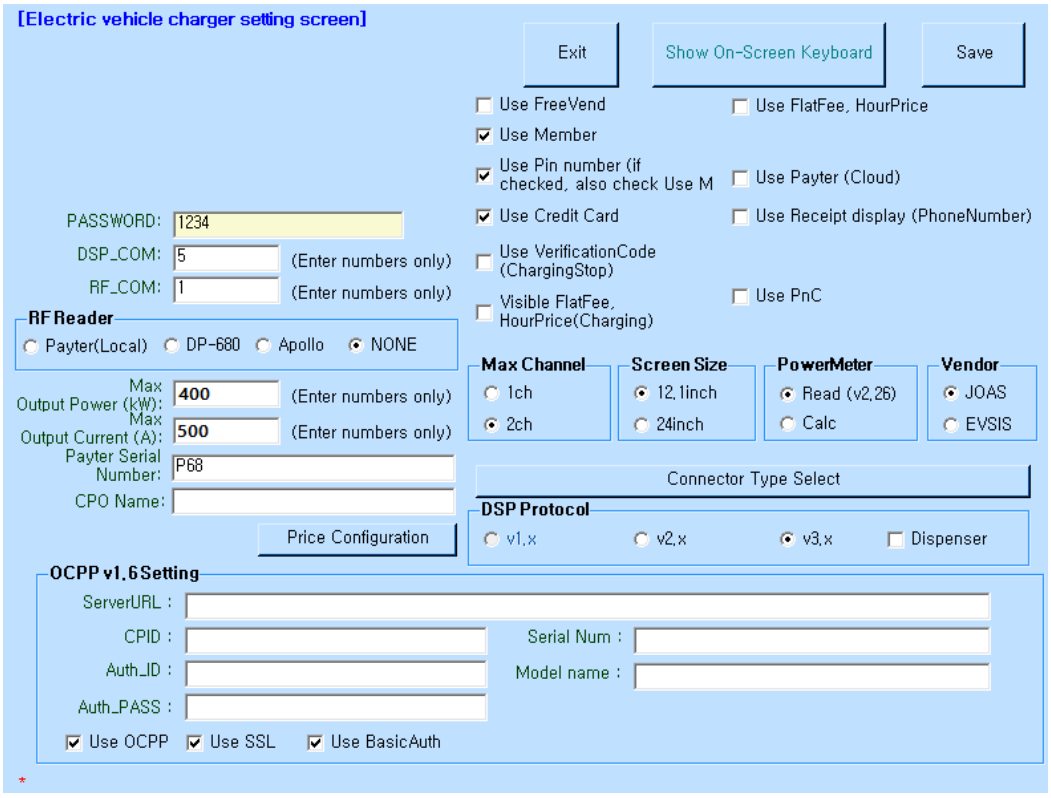
⑤ After changing the default settings on the screen, click the Save button and then click the Exit button.



⑥ Click SoftReset to apply settings. (The UI will automatically restarts.)



- Detailed information on the configuration setting screen



① PASSWORD: Password required to enter the settings screen

② DSP_COM: Charger Control Board - UI Communication Serial port number (Default: 5)

③ RF_COM: Payment/RF Terminal Serial port number (Default: 1)

④ RF Reader: Set according to the RF Terminal in use (Payter Cloud: NONE)

⑤ Maximum Output Power (kW): Setting for the maximum output power (Default: 240)

⑥ Maximum output current (A): Setting for the maximum output current (Default: 375)

⑦ Authentication method

- Use FreeVend: Using FreeVend Mode
- Use Member: Using the membership card tagging authentication method.
- Use Pin number: Using PinCode authentication Method (Only available when checking “Use Member”)
- Use Credit Card: Using Credit card mode.
- Use VerificationCode (ChargingStop): Stop charging only after scanning or entering the PIN of the membership card.

⑧ Use FlatFee, HourPrice: Set whether to use FlatFee, HourPrice (When checking, HourPrice Configuration Available)

⑨ Use PnC: Using Plug and Charge

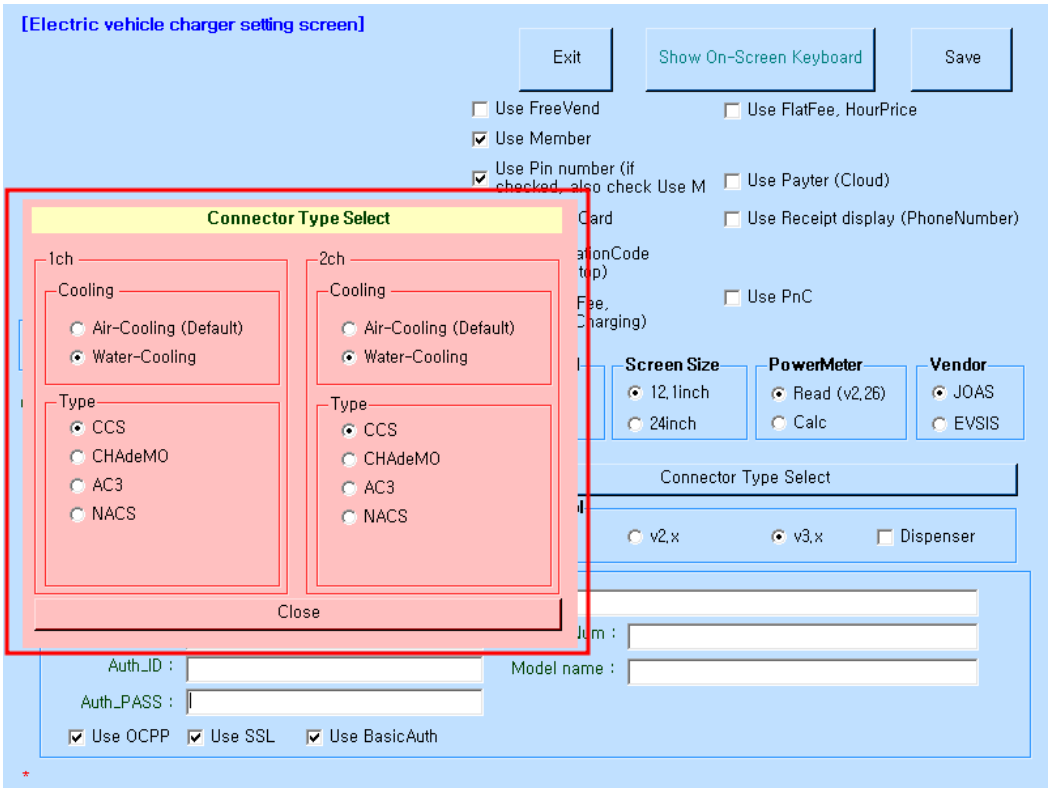
⑩ Use Payter (Cloud): Check when using the Payter Cloud method.

⑪ Max Channel: Number of charger ports (Default: 2ch)

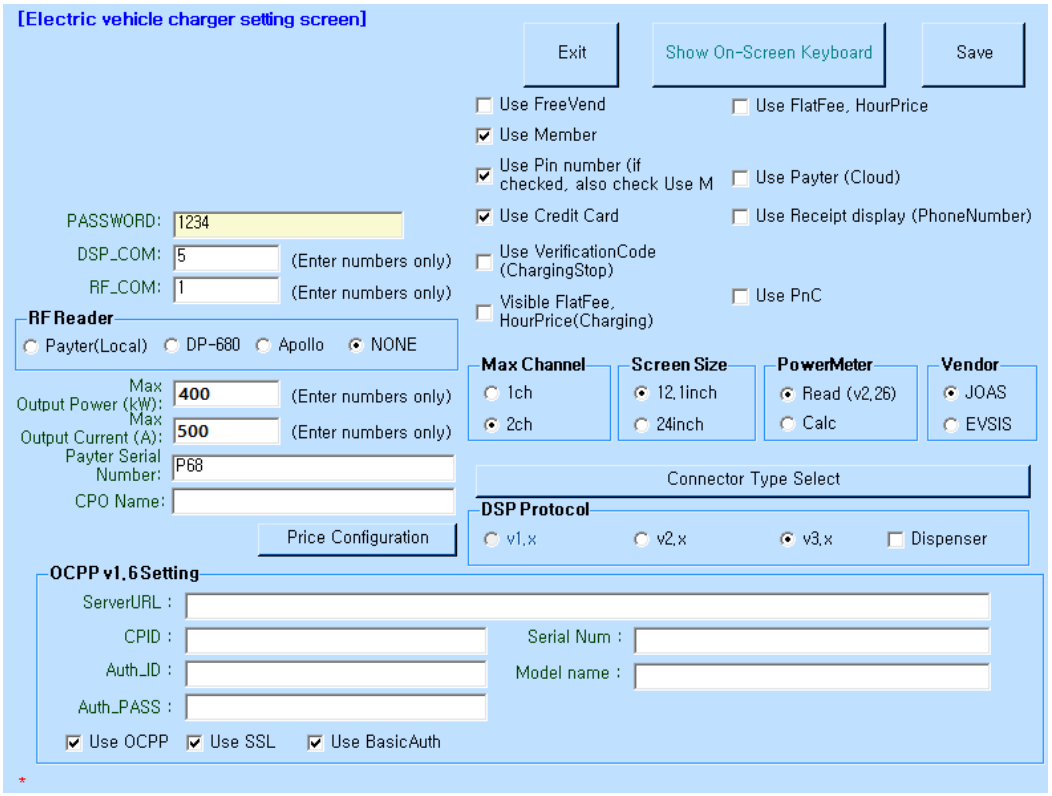
⑫ Screen Size: PC Screen size (Default: 12.1inch)

⑬ PowerMeter (Default: Read MeterValue)

⑭ Connector Type Select : Select connector type of charger (Default: Water-Cooling / CCS)



3.2.2 Configuration – OCPP



① ServerURL: OCPP ServerURL

② CPID: ChargerPoint ID

③ Auth_ID: Basic Authentication ID (Setting up when using Basic Authentication among OCPP server connection methods)

④ Auth_PASS: Basic Authentication Password (Setting up when using Basic Authentication among OCPP server connection methods)

⑤ Serial Num: Serial number of the charger

⑥ Model name: Model name of the charger

⑦ Use OCPP: Click when using OCPP (default: CHECKED)

⑧ Use SSL: Use SSL when connecting to server.

→ Ensure the option is checked if the server URL starts with "ws-", or unchecked if it starts with "wss"

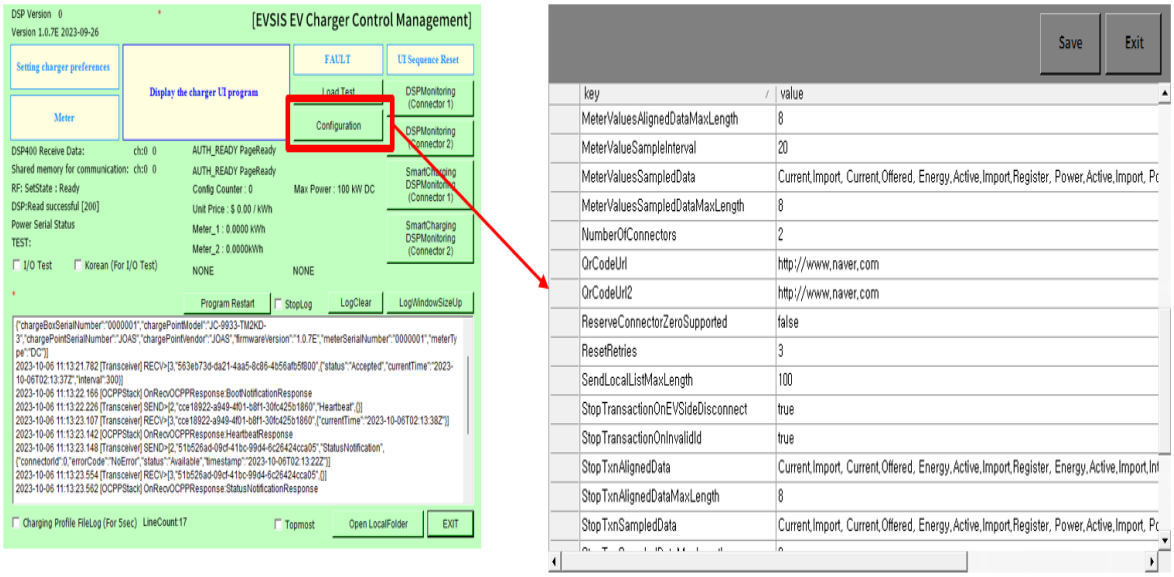
⑨ Use BasicAuth: When connecting to the server, use Basic Authentication

→ When checking, Auth_ID and Auth_PASS must be entered.

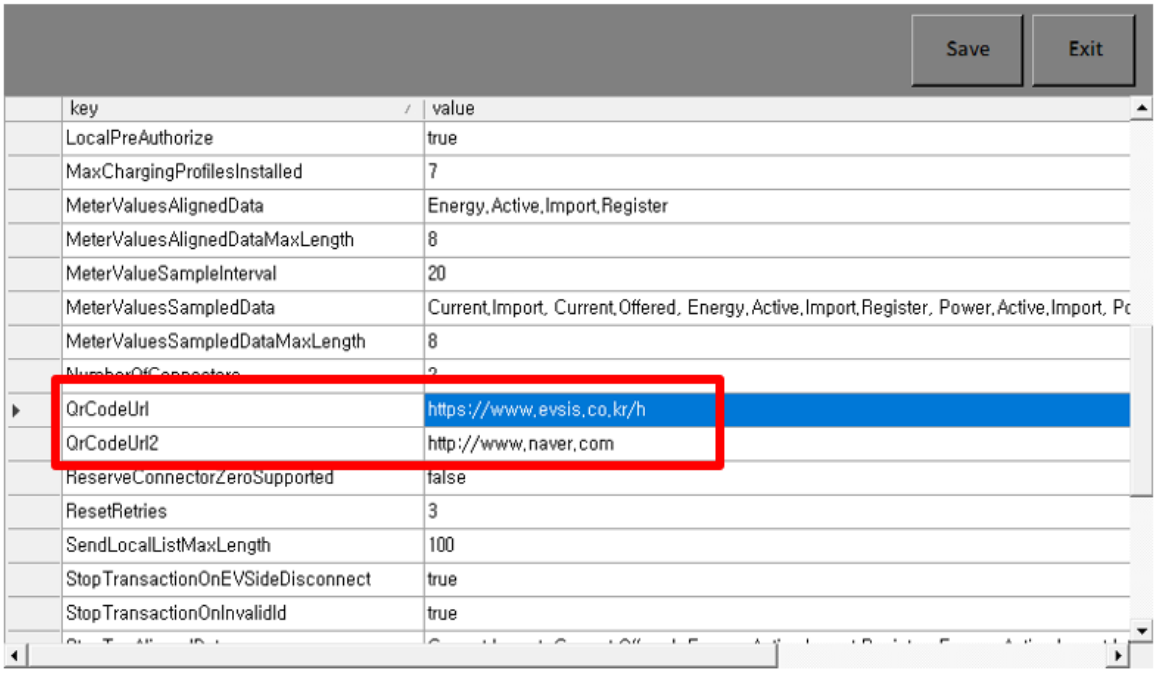
*** After completing the settings, click the Save button and then click the Exit button.**

3.2.3 Configuration – QR Code URL Setting

① Click the Configuration button on the screen



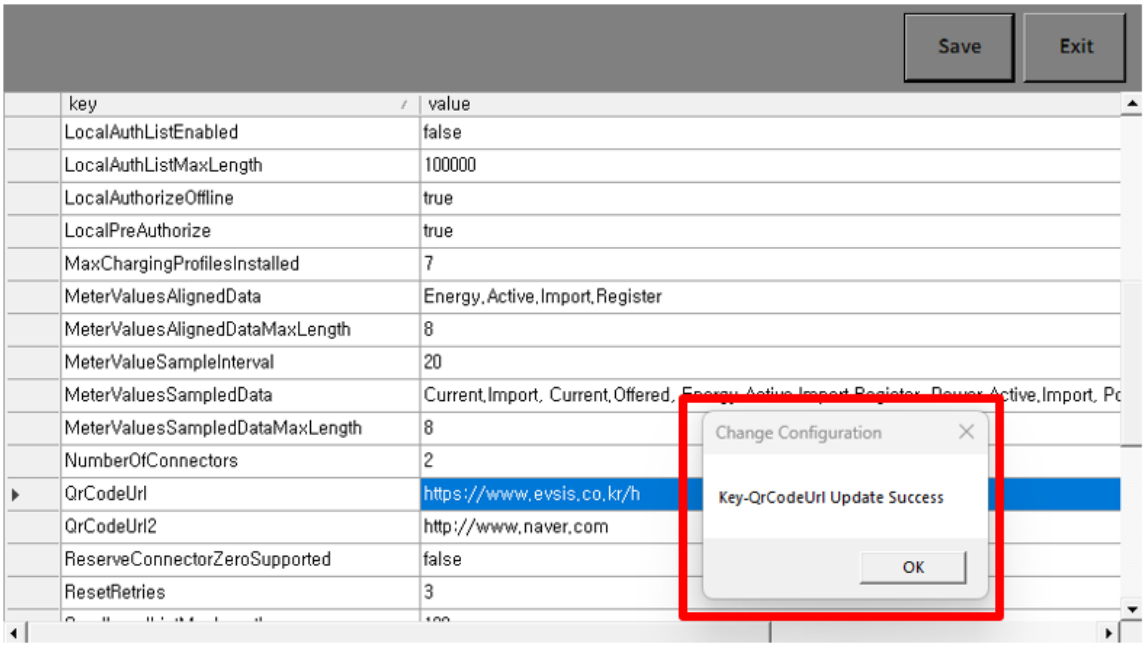
② Click QrCodeUrl from among the items under Key and change the address.



- QrCodeUrl: Left Port QR Code Url
- QrCodeUrl2: Right Port QR Code Url

※ Leave it blank if it doesn't use QR Code.

③ After entering the URL, click the Save button at the top right→ MessageBox - Click OK button → Exit



3.3 SIM Card Installation

① If the modem is ordered with a data plan, an activation instruction sheet will be included with a SIM card. Insert the SIM card into the modem as shown above, ensure that the SIM card is in the "SIM 1" position. Follow the data plan activation instructions provided to activate the data plan.

② Connect the DIN rail to either the left or right side of the modem using the included bracket and screws.

③ Locate a suitable location to install the cell modem. If installing in a Powered Enclosure Kit (PEK), mount it on the DIN rail.

④ If using a PEK or other suitable enclosure, use the 2x short SMA extension cables to connect from the Cellular1 and Cellular2 connectors on the modem to create a bulkhead connector on the enclosure.

⑤ Connect the antennas to the bulkhead connectors on the enclosure or directly to the cell modem if not using an enclosure.

⑥ Connect the power cord to the cellular modem.

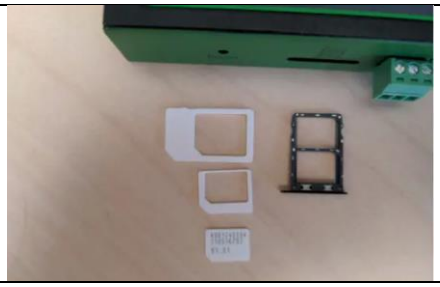
⑦ Connect the Gauge meter via Ethernet to a LAN port on the modem.

3.3.1 Instructions

① Use the SIM card remover tool to eject the SIM card tray.

1-1. SIM Card remover tool	1-2. Insert the SIM card removal tool into the SIM card ejection port
	

② Remove the SIM card from the SIM card holder. The SIM card has 2 outer shells that must be removed prior to inserting it into the holder.

2-1. Full SIM card	2-2. SIM card with 2 outer shells removed
	

③ Insert the SIM card (with no outer shells) into the lower (SIM 1) position of the SIM card holder tray and insert it back into the IR302 modem.

3-1. SIM Card in holder before inserted


3.3.2 Router setting (InHand IR302)

① Insert the SIM card into slot 1 and attach 4G antennas to the Main and AUX connectors, and then power cycle the device. When replacing or inserting the SIM card, the device must be powered off to avoid data loss or damaging the equipment.

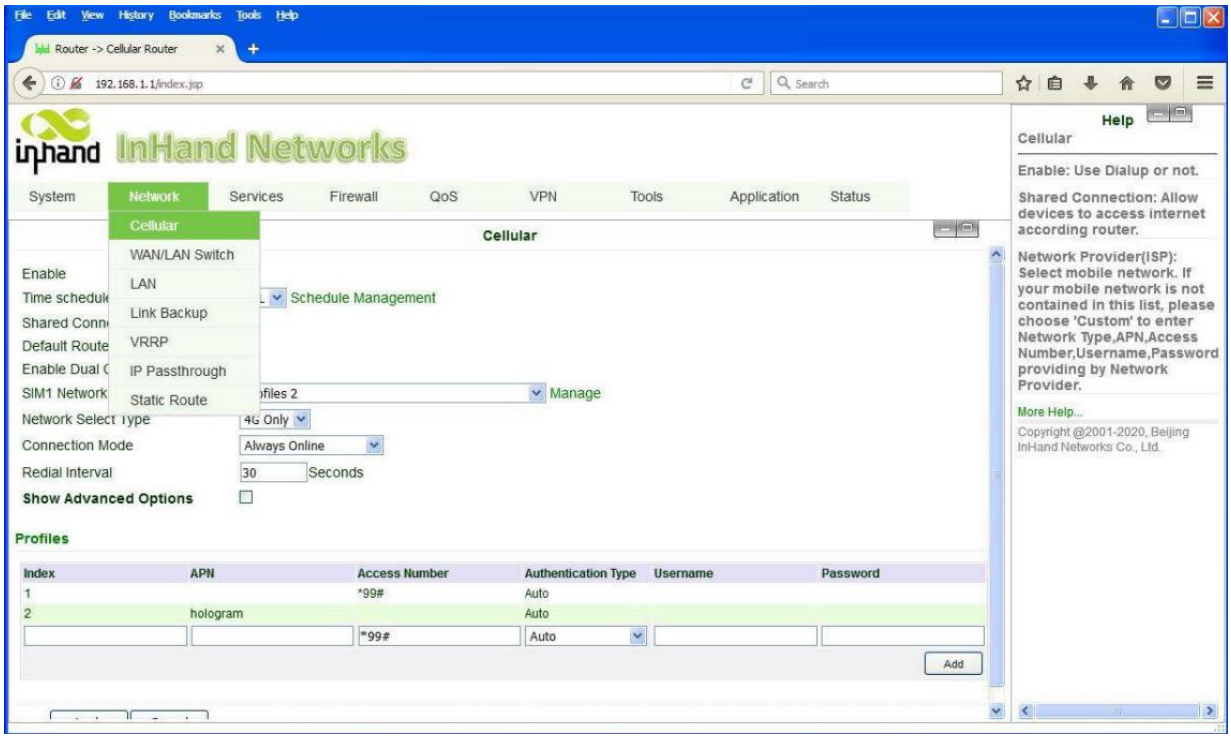
② Connect the LAN2 port with your PC.

③ 3. Fill in the IP of the router on the browser (you can find the IP on the router's label).

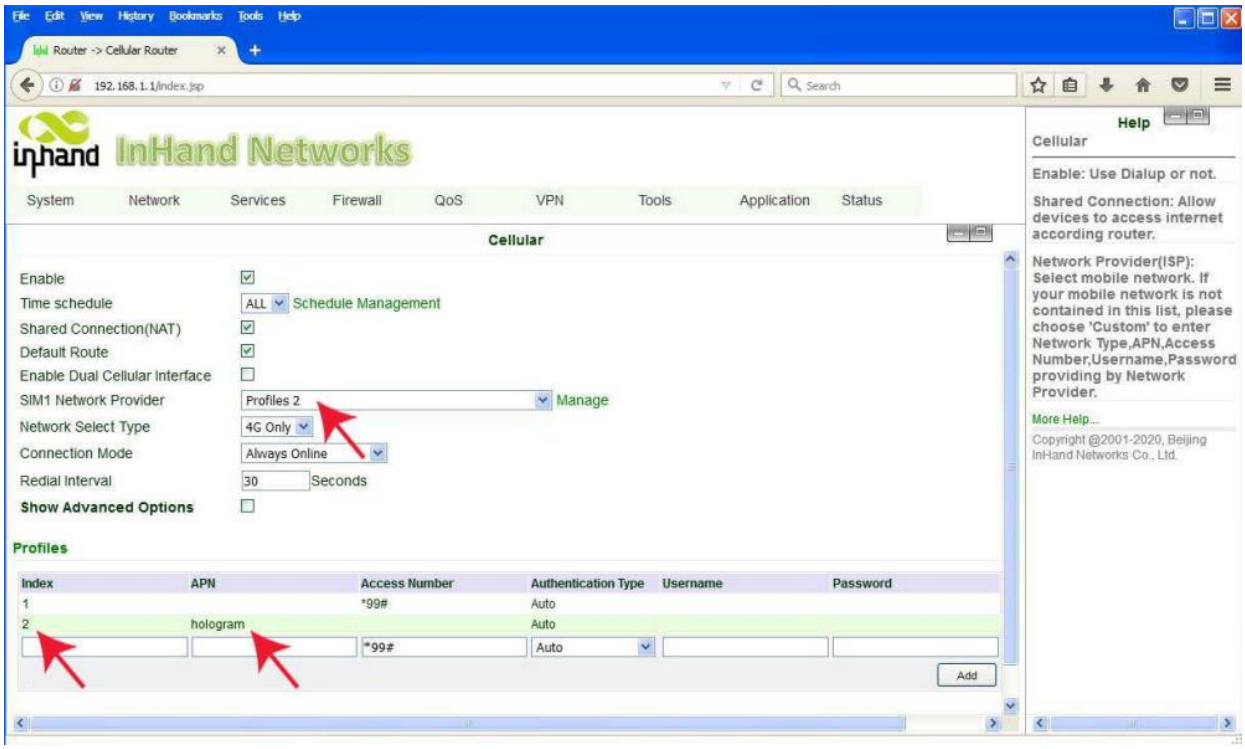
IP: 192.168.2.1

User name / password : adm / 123456

④ Go to 'network >>Cellular,' select 'profile 1' under the 'network provider (ISP).'



⑤ Fill in the SIM card information in the Profiles table down below: APN, User Name, Password, (User Name and Password are not mandatory). Then click 'ok' and 'Apply.'

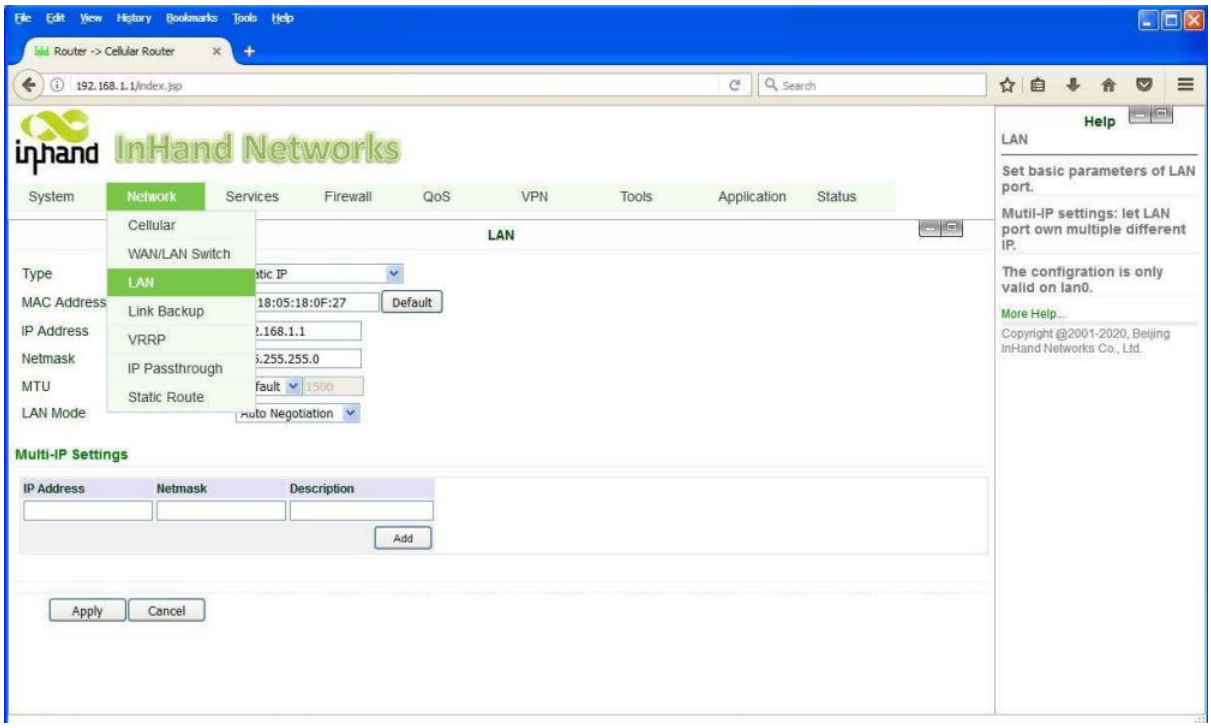


- Below are the most commonly used APN names

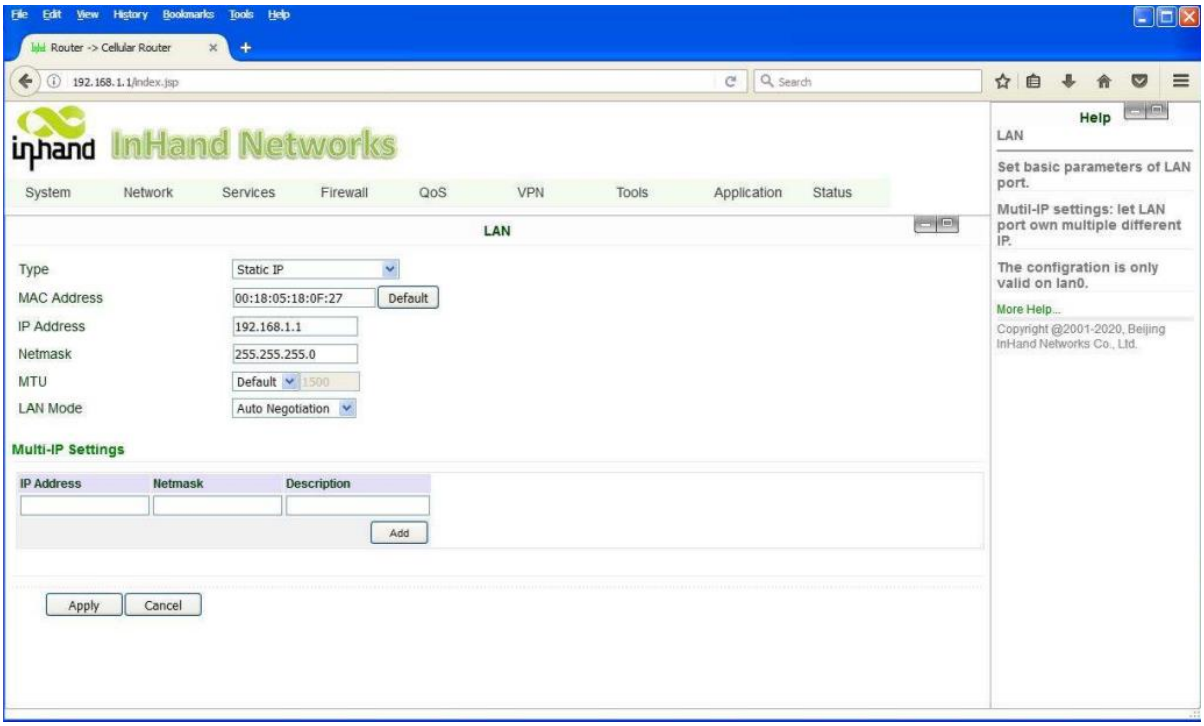
Common Access Point Names (APN) by Carrier			
Network	**APN**	**Username**	**Password**
AT&T	broadband		
	psmtneorm	(Business Plan, call AT&T)	
	i2gold	(Business Plan, call AT&T)	
	isp.cingular	isp@cingulargprs.com	cingular1
	ispda.cingular	ispda@cingulargprs.com	cingular1
	wap.cingular	wap@cingulargprs.com	cingular1
T-Mobile (3G)	epc.t-mobile.com		
T-Mobile (4G)	fast.t-mobile.com		
T-Mobile (Static IP)	b2b.t-mobile.com		
Verizon	vzwinternet		
	inetgsm.vzw3g.com	10dig#@vzw3g.com	vzw
	vzmverison		
	NE01.VZWSTATIC	(for region North East)	
	WE01.VZWSTATIC	(for region North west)	
	SO01.VZWSTATIC	(for region South)	
	MW01.VZWSTATIC	(for region Midwest)	
	NW01.VZWSTATIC	(for region North West)	
Some SIM cards require some specific APNs, please confirm with your Carrier			

	lteinternet.apn		
	ltemobile.apn		
	gne.apn		
	internet.apn		
	internet.com		
	vpn.com		
		wapuser1	wap
	staticip.apn		
Rogers	ltestaticip.apn		
Bell	internet.com	wapuser1	wap
	inet.bell.ca		
	pda.bell.ca		
Telus	isp.telus.com		
	sp.telus.com		
	vpn.telus.net		
	staticipwest.telus.com		
	staticipeast.telus.com		
	internet.com	wapuser1	wap
Some SIM cards require some specific APNs, please confirm with your Carrier			

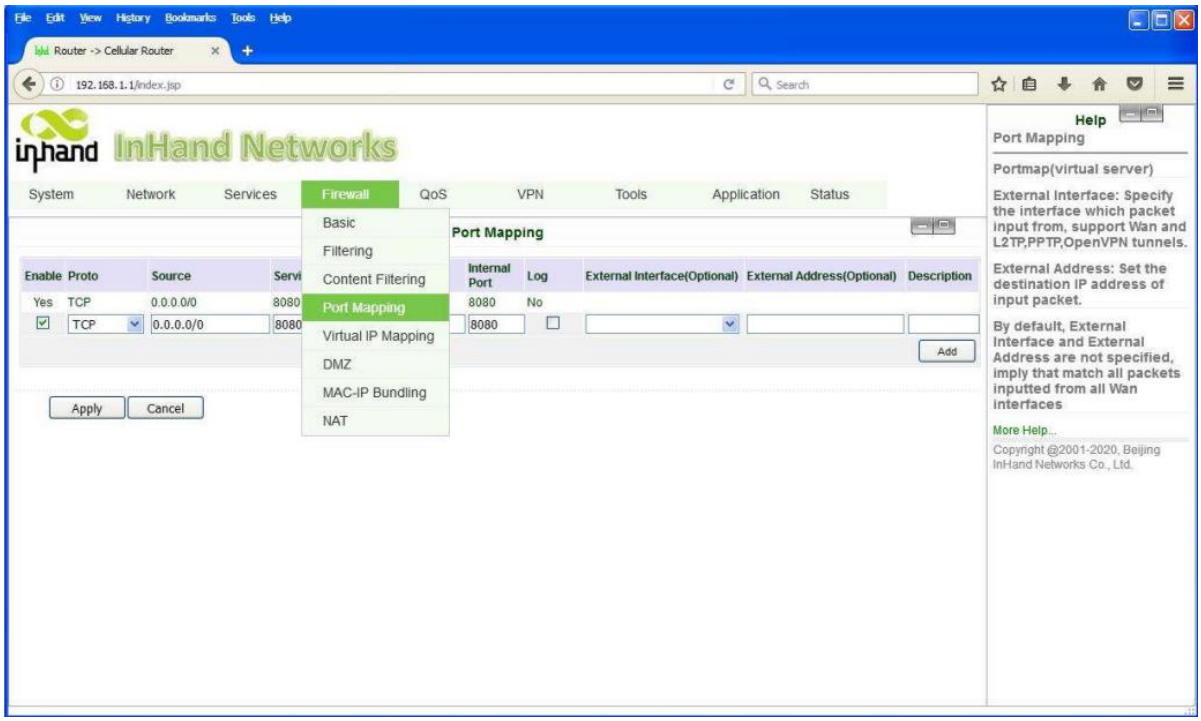
⑥ The IP address of the router needs to be set. Select LAN under Network.



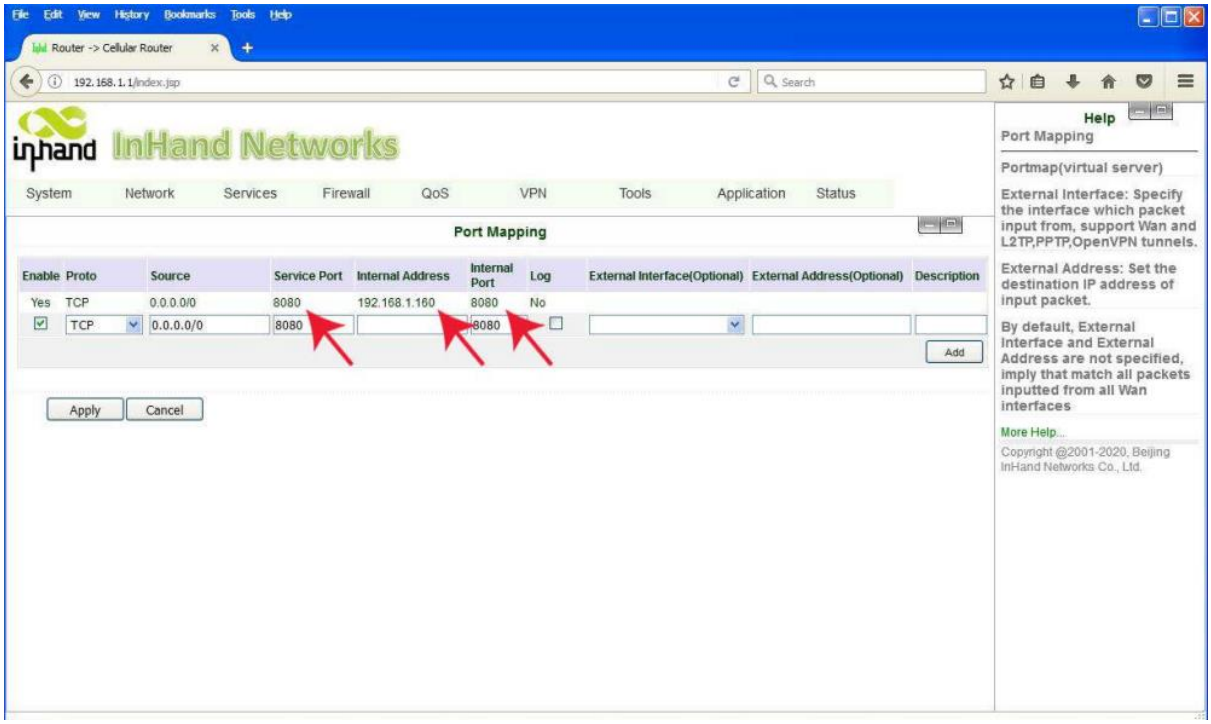
⑦ Select Static IP for type and enter the Static IP address that will become the router's IP address on the LAN.



⑧ Select Port Mapping (aka ‘Port Forwarding’ in some routers) under Firewall (may be found in other menus in other routers).



⑨ Select TCP, leave 0.0.0.0/0 for source, enter 8080 for both source port and internal port, and enter the static IP address of Babel Buster or another local device that port 8080 should get forwarded to. Be sure to change the HTTP port from 80 to 8080 in Babel Buster. A port other than 8080 may be used, but port 80 may NOT be used as the router itself will be using port 80 for its web UI.



⑩ Check the network status, 'Status >> Network connection.'

3.3.3 Factory Reset

① Power on the modem and allow it at least 60 seconds to fully start running. Locate the Reset button next to the SIM card tray.

② Use a push-pin or paperclip to hold down the "Reset" button on the side of the modem for 10 seconds. The status LED will turn off and back on again. Release the reset button.

③ Push the reset button again for 2 seconds and release. The Status LED should alternate on and off.

④ The LEDs will all turn off, and the modem will restart with the normal start-up LED sequence.

⑤ Use the configuration steps below to reconfigure the modem for T-Mobile plans provided by eGauge Systems.

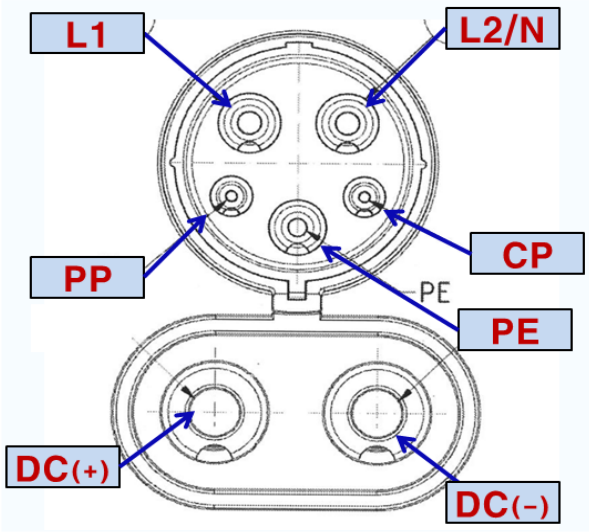
4. MAINTENANCE INSTRUCTIONS

4.1 Part roles

No	Item	Picture	Description
1	Circuit Breaker		Power off
2	Earth leakage breaker		Blocking in case of leakage
3	Watt- hour meter		Calculation of charging wattage
4	Emergency stop switch		Emergency stop
5	PLC		Charger-vehicle communication
6	RELAY		Switch ON/OFF (Low capacity)
7	Door sensor		Door status check
8	AC FILTER		Frequency improvment

No	Item	Picture	Description
9	Power module		Convert AC to DC
10	Surge protector		Charger protection from surge
11	MCB		Power off
12	PCB		PCB
13	SMPS		DC Power supply (12[V], 5[V])
14	PC		Status display
15	MC		Switch ON/OFF (Large capacity)
16	Shunt resistor		Measure the amount of current

4.2 Description of CCS Connector



① L1 (AC Power)

- AC 220V Power

② L2/N (AC Power)

- AC 220V Connect with power line and neutral line

③ PE: Protective Earth

- Charging equipment, vehicle chassis ground connection

④ CP: Control-pilot Pin

- Control line for charging status

⑤ PP: Proximity-detection Pin

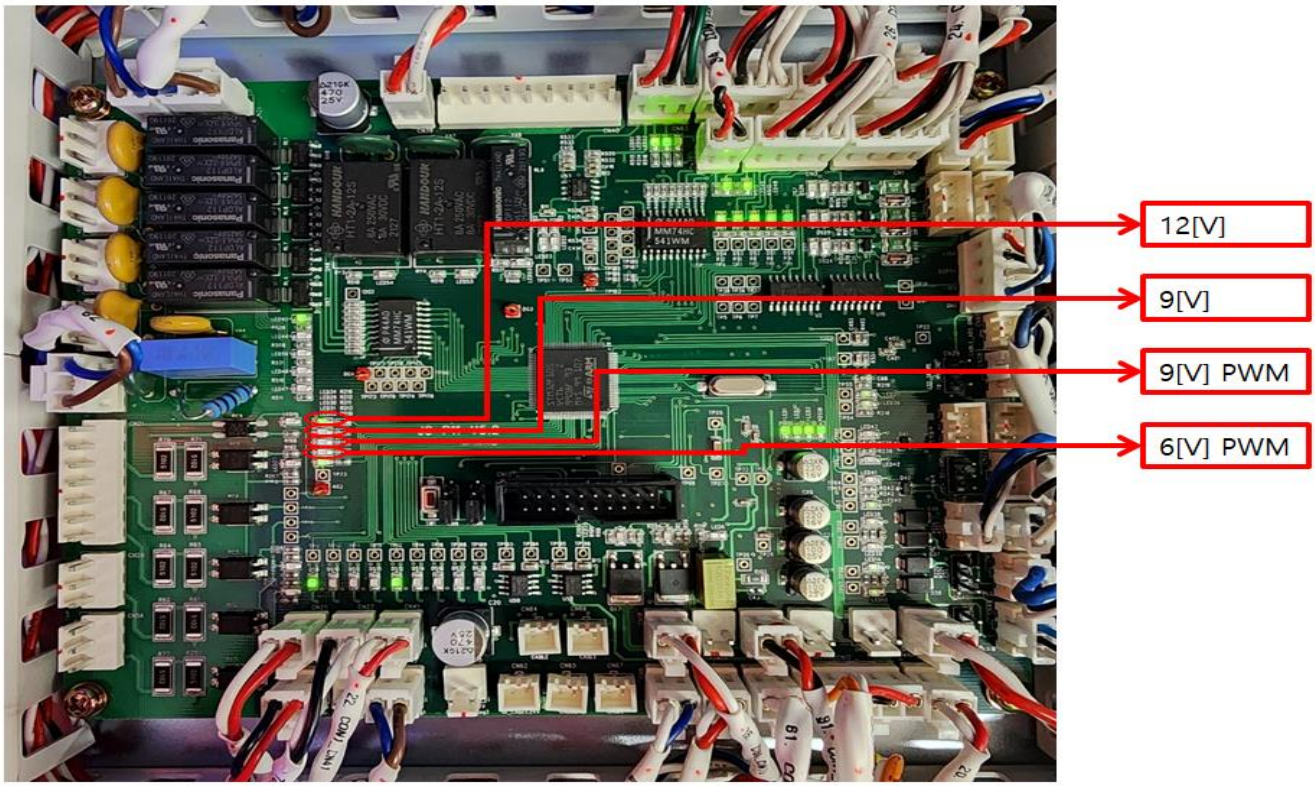
- Connector detects the proximity

⑥ DC(+), DC(-)

- DC current

4.3 Description of CP voltage sequence

PCB1 Board / (JC-P13-V9.0)



< CP Voltage Sequence >

→ Can be checked by LED of PCB1 or PCB2

① Basic status: Waiting for charging - 12[V]

② Connecting the charging cable to the vehicle - 9[V]

③ User authentication by tagging a card on the charger - 9[V] PWM

④ Charging progress - 6[V] PWM

12[V] → 9[V] → 9[V] PWM → 6[V] PWM → end of charge → 12[V]

4.4 Troubleshooting

Code	Sort	Error message	Description Action Plan
40700	EVSE PB	PowerBank_RY1_ERROR	PowerBank Relay or Auxiliary Contact Failure 1. Check the wiring connection of CON1_CN15 / CON2_CN15 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
40701	EVSE PB	PowerBank_RY2_ERROR	PowerBank Relay or Auxiliary Contact Failure 1. Check the wiring connection of CON1_CN18 / CON2_CN18 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
40702	EVSE PB	PowerBank_RY3_ERROR	PowerBank Relay or Auxiliary Contact Failure 1. Check the wiring connection of CON1_CN21 / CON2_CN21 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
40703	EVSE PB	PowerBank_RY4_ERROR	PowerBank Relay or Auxiliary Contact Failure 1. Check the wiring connection of CON1_CN24 / CON2_CN24 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
40704	EVSE PB	PowerBank_RY5_ERROR	PowerBank Relay or Auxiliary Contact Failure

			1. Check the wiring connection of CON1_CN32 / CON2_CN32 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
40705	EVSE PB	PowerBank_RY6_ERROR	PowerBank Relay or Auxiliary Contact Failure
			1. Check the wiring connection of CON1_CN32 / CON2_CN32 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
40706	EVSE PB	PowerBank_RY7_ERROR	PowerBank Relay or Auxiliary Contact Failure
			1. Check the wiring connection of CON1_CN24 / CON2_CN24 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
40708	EVSE PB	PowerBank_RY8_ERROR	PowerBank Relay or Auxiliary Contact Failure
			1. Check the wiring connection of CON1_CN21 / CON2_CN21 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
40710	EVSE PB	PowerBank_SPD_ERROR	Excessive voltage from the power input unit causes SPD to be activated.
			1. Check the status bar on the front of the SPD. 2. If status bar is green, check the wiring connection of CON1_CN41 / CON2_CN41 on the Control Board. 3. Replace the SPD if necessary.
40711	EVSE PB	PowerBank_MALFUNCTION 1	PowerBank MALFUNCTION_Reserve
			Check the PowerBank
40712	EVSE PB	PowerBank_MALFUNCTION 2	PowerBank MALFUNCTION_Reserve
			Check the PowerBank
40713	EVSE PB	PowerBank_MALFUNCTION 3	PowerBank MALFUNCTION_Reserve
			Check the PowerBank

40714	EVSE PB	PowerBank_MALFUNCTION 4	PowerBank MALFUNCTION_Reserve
			Check the PowerBank
40715	EVSE PB	PowerBank_MALFUNCTION 5	PowerBank MALFUNCTION_Reserve
			Check the PowerBank
42300	EVSE CP	Emergency stop button pressed	Emergency stop button pressed.
			1. Release the E-stop button. 2. If the error code continues to display, check the assembly status of the E-stop button. 3. Check the wiring connection of CN15 on the Main PCB.
42304	EVSE CP	Control Board 1 : Relay 1 Contact error or Welding	Output relay (GPR-M400-A) Welding or contact error Splice error when an error occurs while waiting status. Contact error if error occurs after charging starts.
			1. Check the wiring connection of CON1_CN3 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
42305	EVSE CP	Control Board 1 : Relay 2 Contact error or Welding	Output relay (GPR-M400-A) Welding or contact error Splice error when an error occurs while waiting status. Contact error if error occurs after charging starts.
			1. Check the wiring connection of CON1_CN4 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
42306	EVSE CP	Control Board 2 : Relay 1 Contact error or Welding	Output relay (GPR-M400-A) Welding or contact error Splice error when an error occurs while waiting status. Contact error if error occurs after charging starts.
			1. Check the wiring connection of CON2_CN3 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
42307	EVSE CP	Control Board 2 : Relay 2 Contact error or Welding	Output relay (GPR-M400-A) Welding or contact error Splice error when an error occurs while waiting status. Contact error if error occurs after charging starts.

			1. Check the wiring connection of CON2_CN4 on the Main PCB. 2. Replace the Relay if necessary. (re-test required, report required)
42308	EVSE CP	Fuse P OPEN	Fuse(RS306-1-T5Z-500A1250V-D) broken
			1. Check the wiring connection of CON1_CN25 / CON2_CN25 on the Main PCB. 2. Replace the Fuse if necessary.
42310	EVSE PB	Internal overtemperature	Overheating has been detected inside the charger.
			1. Check the temperature of Power module. 2. Replace the Power module if necessary.
42311	EVSE CP	Module - Control Board Communication Error	CAN Communication Error
			1. Check the communication status of the control board LED. 2. If the LED on the control board is OFF, Check the wiring connection of CN48 on the Main PCB. 3. Control board or module needs to be replaced if CAN communication is a problem.
42312	EVSE CP	Control Board 1 - Control Board 2 Communication Error	RS485 Communication Error between Control PCB 1 - Control PCB 2 Board
			1. Check the wiring connection of CON1_CN28 / CON2_CN28 on the Main PCB. 2. Update the F/W of Main PCB. 3. Check the LED status of the Main PCB. 4. Replace the Control Board if necessary.
42313	EVSE CP	HMI 485 Communication Error	RS485 Communication Error between Main PCB - HMI(PC)
			1. Check the power of PC 2. Check the wiring connection of COM5 on the PC, CON1_CN52 on the Control Board. 3. Check the LED status of the Main PCB. 4. Check the setting of UI communication port number. 5. Check the F/W, UI version. 6. Replace the PC or Main PCB if necessary.
42400	EVSE CP	SPD Error	Excessive voltage from the power input unit causes SPD to be activated.

			1. Check the status bar on the front of the SPD. 2. If status bar is green, check the wiring connection of CON1_CN8 on the Control Board. 3. Replace the SPD if necessary.
42403	EVSE CP	Cooler Level Error	Low Coolant Level (0mm) or Contact Failure 1. Check for any coolant leaks and verify the coolant level. 2. Inspect and replace the wiring for CON2_CN68 if needed. 3. Replace the chiller if the issue persists.
42405	EVSE CP	Cooler Error	Pump Failure, Low Coolant Level, or Damaged Cooler Pipes 1. Inspect and replace the wiring for CON1_CN68 if needed. 2. Check the cooler components (pump, coolant, and pipes).
42406	EVSE CP	Cooler Feed OverTemp	Cooler Feed Overheating 1. Disconnect CON1_CN7 and measure the resistance between pin 1 (BLK) and pin 4 (GRN) (should be 1k ohm @ 32°F). 2. Inspect and replace the wiring for CON1_CN7 if necessary. 3. Check the cooler system.
42407	EVSE CP	Cooler Return + OverTemp	Cooler Return Overheating 1. Disconnect CON1_CN66 / CON2_CN66 and measure the resistance between pin 1 (BLK) and pin 4 (GRN) (should be 1k ohm @ 32°F). 2. Inspect and replace the wiring for CON1_CN66 / CON2_CN66 if necessary. 3. Check the cooler system.
42408	EVSE CP	Cooler Return - OverTemp	Cooler Return Overheating 1. Disconnect CON1_CN67 / CON2_CN68 and measure the resistance between pin 1 (BLK) and pin 4 (GRN) (should be 1k ohm @ 32°F). 2. Inspect and replace the wiring for CON1_CN67 / CON2_CN68 if necessary. 3. Check the cooler system.
42409	EVSE CP	Cable bus + OverTemp	Cable Bus Overheating 1. Disconnect CON1_CN64 / CON2_CN64 and measure the resistance between pin 1 (BLK) and pin 4 (GRN) (should be 1k ohm @ 32°F).

			2. Inspect and replace the wiring for CON1_CN64 / CON2_CN64 if necessary. 3. Check the temperature of cable bus. 4. Inspect and replace the PT1000 sensor if needed.
42410	EVSE CP	Cable bus + OverTemp	Cable Bus Overheating 1. Disconnect CON1_CN65 / CON2_CN65 and measure the resistance between pin 1 (BLK) and pin 4 (GRN) (should be 1k ohm @ 32°F). 2. Inspect and replace the wiring for CON1_CN65 / CON2_CN65 if necessary. 3. Check the cable bus temperature. 4. Inspect and replace the PT1000 sensor if needed.
42411	EVSE CP	Cable Inlet + OverTemp	Cable Inlet Overheating 1. Disconnect CON1_CN63 / CON2_CN63 and measure the resistance between pin 1 (BLK) and pin 4 (GRN) (should be 1k ohm @ 32°F). 2. Inspect and replace the wiring for CON1_CN63 / CON2_CN63 if necessary. 3. Check the cable bus temperature. 4. Inspect and replace the PT1000 sensor if needed.
42507	EVSE CP	Cooler Feed AD Error	Cooler Feed AD No connection Inspect and replace the wiring for CON1_CN 68 / CON2_CN 68 if necessary.
42508	EVSE CP	Cooler Return + AD Error	Cooler Return AD No connection Inspect and replace the wiring for CON1_CN 66 / CON2_CN 66 if necessary.
42509	EVSE CP	Cooler Return - AD Error	Cooler Return AD No connection Inspect and replace the wiring for CON1_CN 67 / CON2_CN 67 / CON1_CN 68 / CON2_CN 68 if necessary.
42510	EVSE CP	Cable bus + AD Error	Cable Bus AD No connection Inspect and replace the wiring for CON1_CN 64 / CON2_CN 64 if necessary.
42511	EVSE CP	Cable bus - AD Error	Cable Bus AD No connection Inspect and replace the wiring for CON1_CN 65 / CON2_CN 65 if necessary.

42512	EVSE CP	Cable Inlet + AD Error	Cable Inlet AD No connection Inspect and replace the wiring for CON1_CN 63 / CON2_CN 63 if necessary.
42514	EVSE CP	CP Door Open	Front door opening or door sensor failure. 1. Check the status of the door. 2. Check the door sensor if an error occurs when the charging door is closed. 3. Check the wiring connection of CON1_CN26 on the Main PCB. 4. Replace the door sensor if necessary.
42600	EV	(Combo-Vehicle Error) Bad charging coupler lock status	The vehicle has not detected the Charge cord connector locked into the inlet or failure where connector cannot be unlocked from the charging inlet. 1. It may occur if the cable binding is unstable. 2. If an error comes from a particular vehicle, check the inlet of vehicle. 3. If the error persists regardless of the vehicle, an on-site visit is required.
42601	EV	(Combo-Vehicle Error) Charging current deviation Error	Indication that vehicle has stopped the charging session after detecting that the charging station is not able to maintain the current request. Check the faulty module.
42602	EV	(Combo-Vehicle Error) Charging voltage range/deviation Error	Indication that vehicle has stopped the charging session after detecting that the RESS is either under or above normal operating voltage range. Check the faulty module.
42603	EV	(Combo-Vehicle Error) Charging system compatibility Error	If the vehicle determines that the charging station is incompatible. Using this value is optional; as an alternative, the vehicle can use EVReady in DC_EVStatusType equal to "FALSE" 1. Determine whether the error persists with specific vehicles. 2. Determine whether the error is recurring from the charger. 3. Check the charger ID, timestamp, vehicle, and circumstances of the error.

			4. If the error persists regardless of the vehicle, an on-site visit is required.
42604	EV	(Combo-Vehicle Error) Vehicle battery temperature problem	The vehicle battery is too hot or cold to start the charging session. 1. Determine whether the error persists with specific vehicles. 2. Determine whether the error is recurring from the charger. 3. Check the charger ID, timestamp, vehicle, and circumstances of the error. 4. If the error persists regardless of the vehicle, an on-site visit is required.
42605	EV	(Combo-Vehicle Error) Check vehicle gear status	Check the Position of gear, vehicle is not in “P” status. 1. Determine whether the error persists with specific vehicles. 2. Determine whether the error is recurring from the charger. 3. Check the charger ID, timestamp, vehicle, and circumstances of the error. 4. If the error persists regardless of the vehicle, an on-site visit is required.
42606	EV	(Combo-Vehicle Error) Vehicle Status/BMS Error	Vehicle RESS Malfunction, Any non-recoverable fault or error condition of the Vehicle RESS. 1. Determine whether the error persists with specific vehicles. 2. Determine whether the error is recurring from the charger. 3. Check the charger ID, timestamp, vehicle, and circumstances of the error. 4. If the error persists regardless of the vehicle, an on-site visit is required.
42608	EVSE CP	(Combo Error) Output Leakage-current occur	Leakage current detected on DC output line when charging.

			1. Check for any leakage in the input power line (3-phase, 3-wire). 2. Check the wiring connection of CON1_CN22 / CON2_CN23 on the Main PCB. 3. If the error persists regardless of the vehicle, an on-site visit is required.
42609	EVSE CP	(Combo Error) Vehicle - Controlboard Communication Error	CAN Communication Error 1. Determine whether the error persists with specific vehicles. 2. Determine whether the error is recurring from the charger. 3. Check the charger ID, timestamp, vehicle, and circumstances of the error. 4. If the error persists regardless of the vehicle, an on-site visit is required.
42610	EVSE CP	(Combo Error) Connector over temperature	PT1000 Sensor Reading Exceeds 90°C. 1. Measure the coupler temperature. 2. Check the wiring connection of CN63 on the main PCB. 3. Replace the coupler if necessary.
42612	EVSE CP	(Combo Error) Overvoltage	Overvoltage detection during charging. 1. Check the charger ID, timestamp, vehicle, and circumstances of the error. 2. Immediate on-site visit, inspection required.
42613	EVSE CP	(Combo Error) Overcurrent	Overcurrent detection during charging. 1. Check the charger ID, timestamp, vehicle, and circumstances of the error. 2. Immediate on-site visit, inspection required.
42615	EVSE CP	(Combo Error) Overcurrent	Overcurrent detection during charging. 1. Need to check the charger number, time, vehicle, situation, etc. that occurred. 2. Immediate on-site visit, inspection required.
42701	PLC modem	PLC SequenceError	PLC modem has received an unexpected request message from the EVCC. 1. Error that may occur only once. 2. Check if the error occurs with a specific vehicle. 3. If the error persists regardless of the vehicle, an on-site visit is required.

42702	PLC modem	PLC ServiceIDInvalid	FAILED_ServiceIDInvalid 1. Error that may occur only once. 2. Check if the error occurs with a specific vehicle. 3. If the error persists regardless of the vehicle, an on-site visit is required.
42703	PLC modem	PLC UnknownSession	The SessionID in any request message except the SessionSetupReq message sent by the EVCC is not equal to the SessionID randomly selected by PLC modem. 1. Error that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required.
42704	PLC modem	PLC ServiceSelectionInvalid	FAILED_ServiceSelectionInvalid 1. Error that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required.
42705	PLC modem	PLC PaymentSelectionInvalid	The selectedPaymentOption in the paymentServiceSelectedReq message sent by the EVCC was not offered in the supportedPaymentOption list by the EVSE. 1. Error that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required.
42712	PLC modem	PLC WrongChargeParameter	The EVChargeParameter in the ChargeParameterDiscoveryReq sent by the EVCC is not valid. E.g. Wrong parameter set, the maximum limit value of the EV is smaller than the minimum limit value of the EVSE. 1. Error that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42713	PLC modem	FAILED_TariffSelectionInvalid	The SAtupleID in the PowerDeliveryReq message sent by the EVCC is invalid.

			1. Error that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42714	PLC modem	PLC TariffSelectionInvalid	The ChargingProfile in the PowerDeliveryReq message sent by the EVCC violates the power limitations provided in the ChargingSchedule presented by PLC modem.
			1. Error that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42801	PLC modem	PLC NoChargeServiceSelected	The selectedService list in the PaymentServiceSelectionReq message sent by the EVCC does not contan the mandatory "EVCharging" service.
			1. Error that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42802	PLC modem	PLC WrongEnergyTransferMode	The selectedEnergyTransferMode in the ChargeParameterDiscoveryReq message sent by the EVCC is not valid. E.g. Inconsistent with the supportedEnergyTransferMode list sent by PLC modem.
			1. Error that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42806	PLC modem	PLC TIMEOUT_CommunicationSetup	Error that may occur when a non-PnC supported vehicle selects PnC mode.

			1. Check if the vehicle attempting to charge supports PnC. 2. Error that may occur only once. 3. Check if the error occurs with a specific vehicle. 4. If the error persists regardless of the vehicle, an on-site visit is required.
42807	PLC modem	PLC TIMEOUT_Sequence	PLC modem did not receive any request message from the EVCC for 60s.
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42808	PLC modem	PLC TIMEOUT_NotificationMaxDelay	The EVCC failed to perform the appropriate action within the NotificationMaxDelay timeout in response to the EVSENotification flag sent by PLC modem. E.g. StopCharging, ReNegotiation.
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42809	PLC modem	PLC WrongCPLevel	The measured CP voltage level from PLC modem did not match the defined voltage range of the current charging state. May also indicate E-Stop from the EV from "CableCheck" to "Charging"
			1. Errors that may occur only once. 2. Check if the error occurs with a specific vehicle. 3. If the error persists regardless of the vehicle, an on-site visit is required.
42811	PLC modem	PLC HLCError	An error occured during data interpretation. It may also indicate E-Stop from the EV from "High Level Comm." to "ChargeParameterDiscovery"
			1. Errors that may occur only once. 2. Check if the error occurs with a specific vehicle. 3. If the error persists regardless of the vehicle, an on-site visit is required.
42812	PLC modem	PLC HeartbeatError	The EVSE Controller failed to update the evseHeartbeat value for 500ms.

			Visually inspect the Main PCB and replace it if necessary.
42813	PLC modem	PLC EVSECANInit	The EVSE Controller failed the CAN data verification during "Ready" state.
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42814	PLC modem	FAILED_NoNegotiation	The appprotocol list in the SupportedProtocolReq message sent from the EVCC is not valid. Another case exists ; The EVSE has decided to force DIN SPEC 70121. but EVCC does not Support DIN SPEC 70121 and only supports ISO 15118.
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42815	PLC modem	TIMEOUT_WeldingDetection	The EVCC failed to perform the welded contactor check within 20 seconds.
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42900	PLC modem	PLC Reset Error	PLC modem operating abnormally (Idle Wait -> Idle Error)
			1. Reboot the PLC Modem 2. Replace the PLC Modem if necessary.
42901	EV	SLAC timeout Error	When the expected data from the vehicle is not received (Idle -> LLE timeout)
			1. Check if a non-PnC supported vehicle attempted PnC charging. 2. Verify that the cable is properly connected before starting the charge. 3. Error that may occur only once. 4. Check if the error occurs with a specific vehicle. 5. If the error persists regardless of the vehicle, an on-site visit is required.
42902	PLC modem	PLC CP Error	When normal CP Voltage is not confirmed (9V PWM response x)
			Replace the PLC Modem if necessary.
42903	EV	Protocol No timeout Error	When the expected data from the vehicle is not received (LLC -> HLC timeout /

			SupportedAppProtocolReq)
			1. Check if a non-PnC supported vehicle attempted PnC charging. 2. Verify that the cable is properly connected before starting the charge. 3. Error that may occur only once. 4. Check if the error occurs with a specific vehicle. 5. If the error persists regardless of the vehicle, an on-site visit is required.
42904	EV	Charging Type timeout Error	When the expected data from the vehicle is not received (DIN or ISO no response)
			1. Errors that may occur only once. 2. Check if the error occurs with a specific vehicle. 3. If the error persists regardless of the vehicle, an on-site visit is required.
42905	EV	SessionSetup timeout Error	When the expected data from the vehicle is not received (supportedAppProtocol -> SesstionSetup timeout)
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42906	EV	ServiceDiscovery timeout Error	When the expected data from the vehicle is not received (SessionSetup -> ServiceDiscovery timeout)
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42907	EV	PaymentSelection timeout Error	When the expected data from the vehicle is not received (ServiceDiscovery -> PaymentSelection timeout)
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42908	EV	Authorization timeout Error	When the expected data from the vehicle is not received (HLC -> Authorization timeout)
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-

			site visit is required
42909	EV	Discovery information Error	When the expected data from the vehicle is not received (Abnormal value identified in the charge parameter step)
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42910	EV	Discovery timeout Error	When the expected data from the vehicle is not received (Authorization -> Discovery timeout)
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42911	EV	CableCheck timeout Error	When the expected data from the vehicle is not received (Discovery -> CableCheck timeout error)
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42912	EV	Cable Check CP Error	When the expected data from the vehicle is not received (6V PWM no response)
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required
42913	EVSE CP	Cable Check 1 Error	Abnormal Voltage Detected During CableCheck Stage (Module voltage did not increase)
			Check the faulty module.
42914	EVSE CP	Cable Check 2 Error	Abnormal Voltage Detected During CableCheck Stage (Module voltage did not discharge)
			Check the faulty module.
42915	EV	PreCharge timeout Error	When the expected data from the vehicle is not received (CableCheck -> PreCharge/Charging timeout error)
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required

43001	PLC modem	FAULT_HPGPLinkDown	SECC detected the EVCC left HPGP logical network
			1. Errors that may occur only once 2. Check if the error occurs with a specific vehicle 3. If the error persists regardless of the vehicle, an on-site visit is required