

AC Charging solutions

anyCharge Series

22 kW SMART AC-WALLBOX

User Manual

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1. IMPORTANT SAFETY INSTRUCTIONS

Please read all Important Safety Instructions as well as charging instructions in your vehicle owner's manual before attempting to charge your electric vehicle. Failure to do so can result in death or severe injury. Save this user manual for future reference. There are many safety features built into the charger. Read all the safety information and warnings in this manual to be avoid any risks or hazards and risks associated with using this charger.



When using electric products, basic precautions should always be followed. This manual contains important instructions, including the following, that must be followed during installation, operation and maintenance.

- Do not install or use the charger near flammable, explosive, corrosive, or combustible materials, chemicals, or vapors.
- Turn off the input power of the charger before performing any maintenance to the charger.
- The device is designed only for vehicles that are compatible with the IEC Type 2 charging standard.
- Do not use the charger if it is defective, appears cracked, frayed, broken or damaged.
- Do not attempt to open, disassemble, repair, tamper with, or modify the charger. Contact our Customer Service department if you have any questions or require any parts replacements or repairs.
- Do not use the charger when you are, the vehicle is, or the charger is exposed to severe rain, snow, or other severe weather.
- When transporting the charger, handle it with care and do not drag or step on the device.
- Do not touch the charging connector terminal with any sharp metallic objects to preventing damage.
- Do not forcefully pull the charging cable, damage it with sharp objects, put fingers, or insert foreign objects into any part of the charging connector.
- Risk of explosion. This device has arcing or sparking parts that should not be exposed to flammable vapors.
- Risk of electric shock. Do not remove cover or attempt to open the enclosure of this device. There are no user-serviceable parts inside. Contact a qualified service company if you require any service repairs.
- This charger should be installed, adjusted, and serviced by a qualified electrician or a person familiar with the construction and operation of this type of charger and the dangers involved. Failure to observe this precaution could result in damage to the charger or even severe injury or death.
- Incorrect installation and testing of the charger could potentially damage either the vehicle's battery and the charger. This type is damage is not covered by our warranty policy.
- Ensure that the charging cable is well-positioned during the charging process to avoid the cable getting stepped on, tripped over, or subjected to damage or stress.
- Do not use this charger with a frayed charging cable with damaged insulation or any other sign of damage.
- Ensure the wire type, diameter, current rating, and temperature rating comply with the local electrical standards and requirements in your local area.
- Before starting the installation, turn off all power
- For Permanently connected equipment, Protective grounding and bonding terminals - Field wiring terminals for connection of equipment-grounding conductors are identified by: „G,“ „GR,“ „GND,“ „Ground,“ „Grounding“ or the ground symbol or on a wiring diagram provided on unit, or a marking on wiring diagram attached to unit.

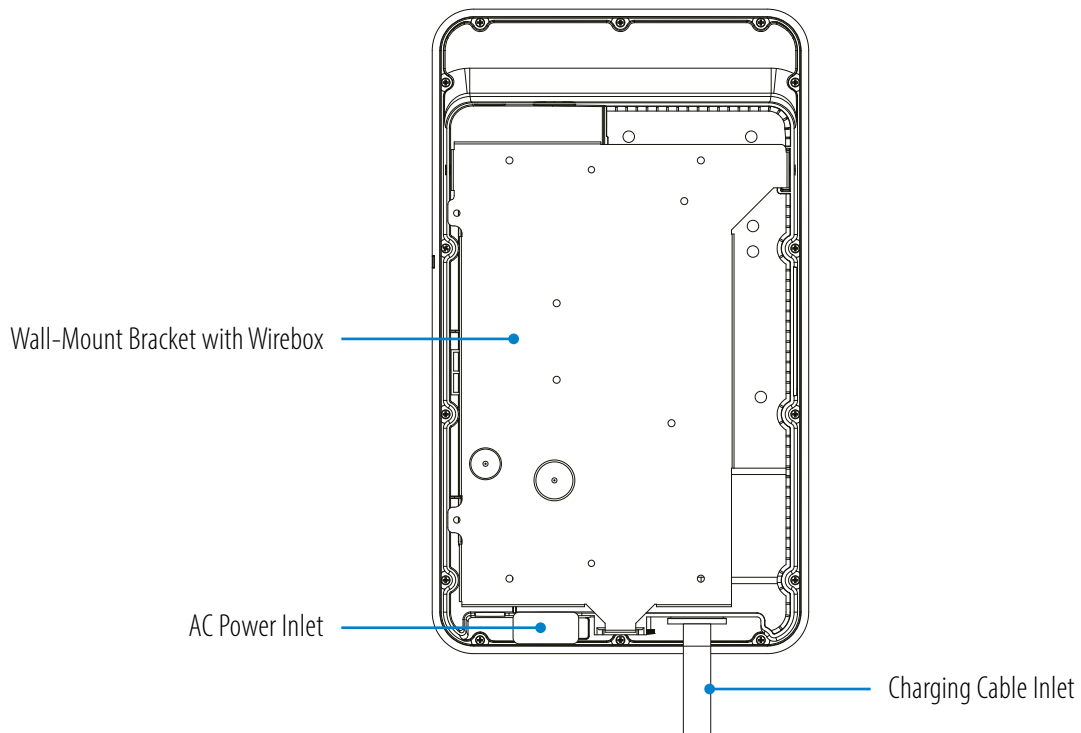
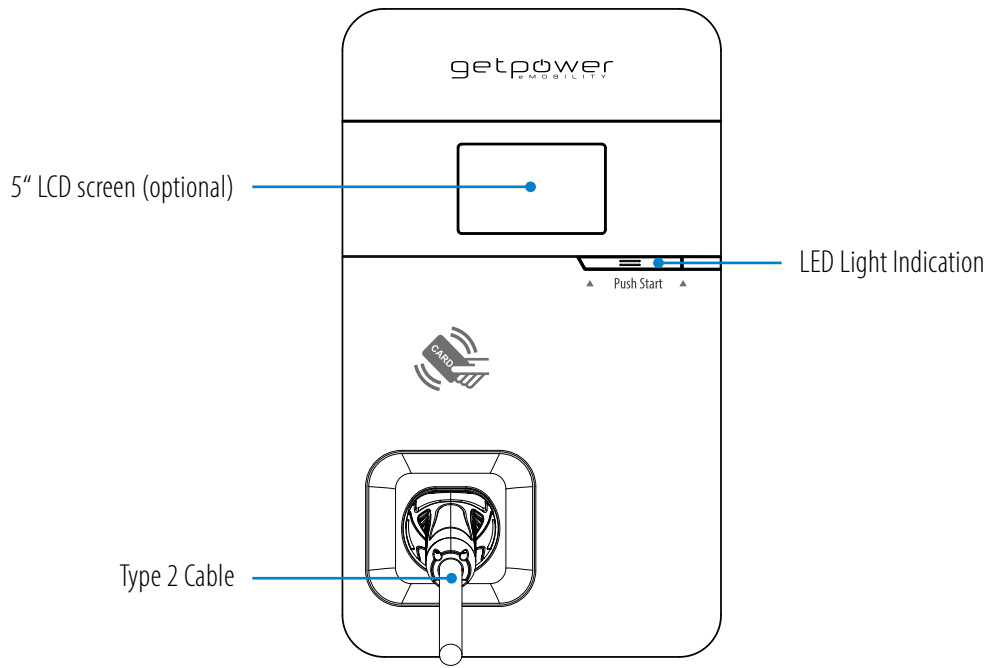
Note: This device should be supervised when used around children.

Note: Do not put fingers into the electric vehicle connector

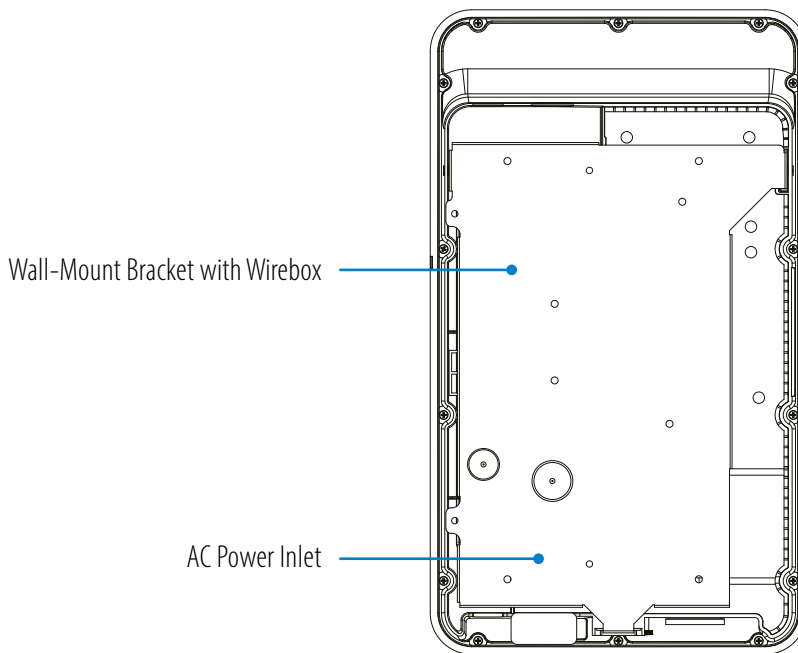
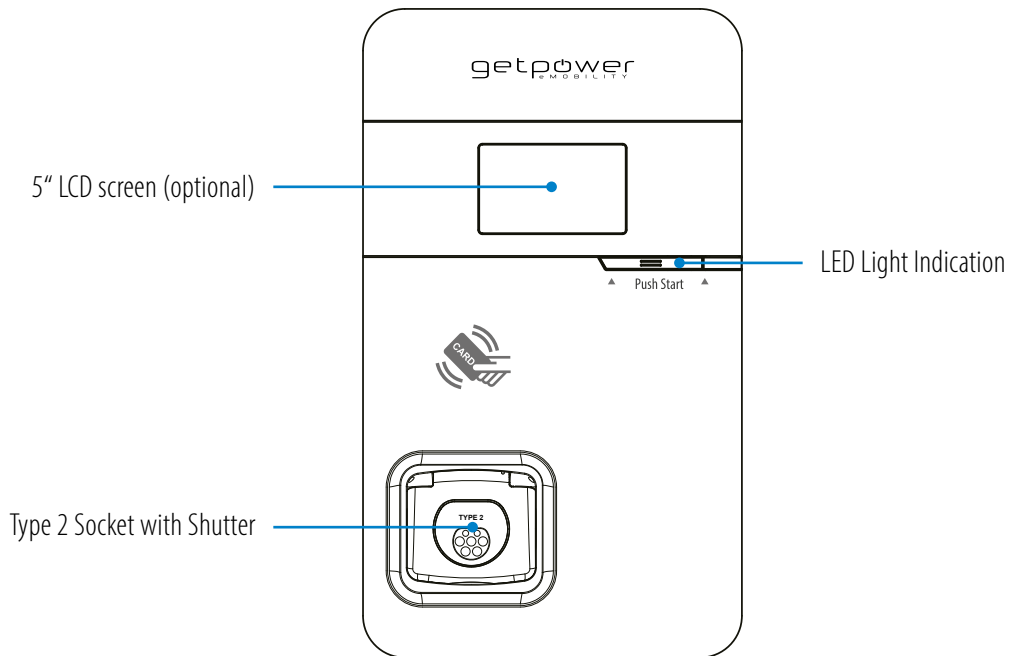
Note: The device is not to be lifted or carried by either the flexible cord or the EV cable

2. INTERFACE

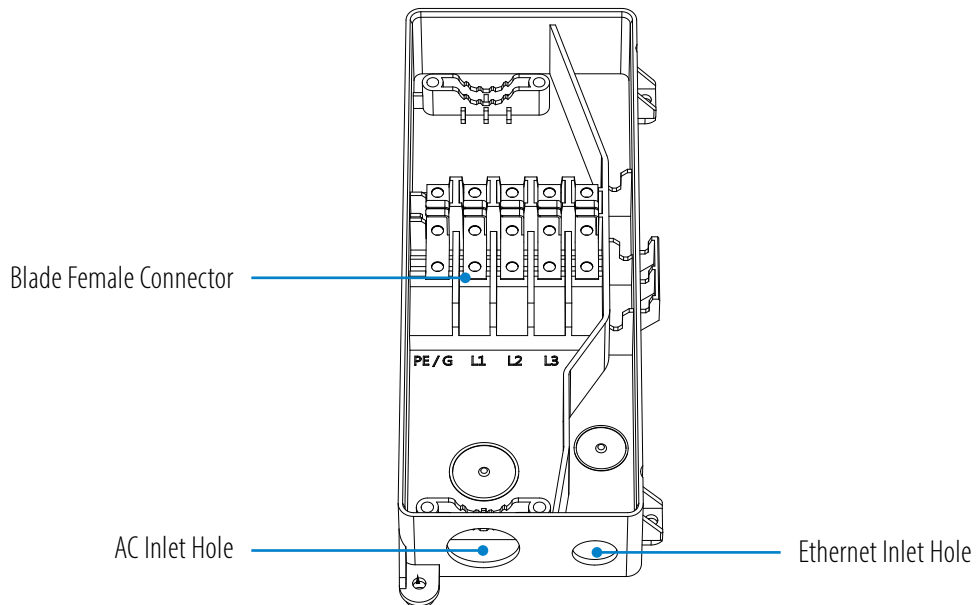
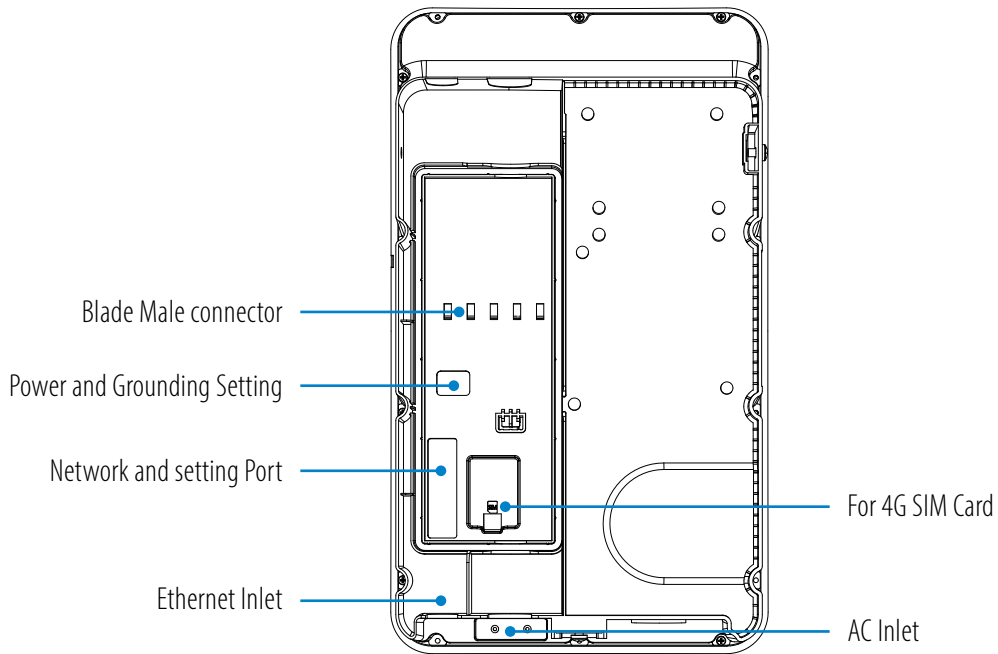
2.1 CABLE MODEL



2.2 SOCKET WITH SHUTTER MODEL



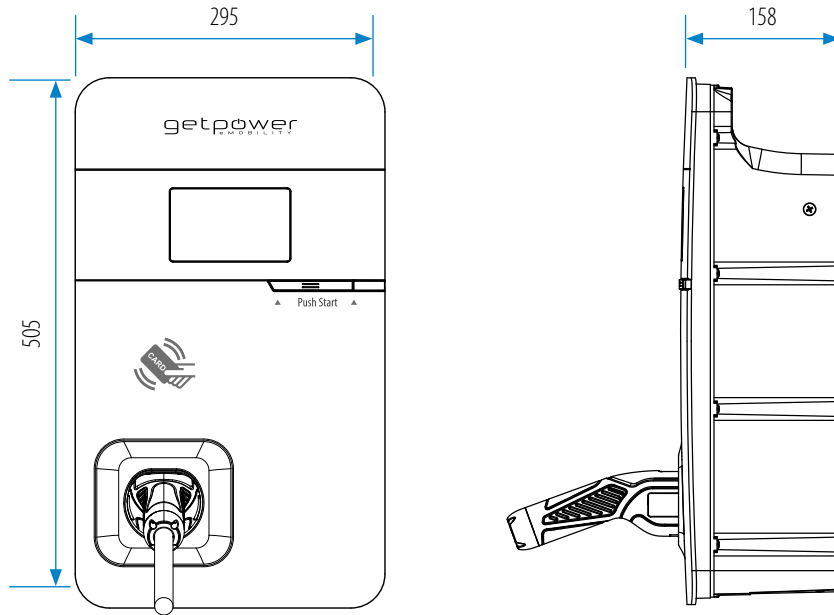
2.3 BOTTOM CASE AND WIRE BOX



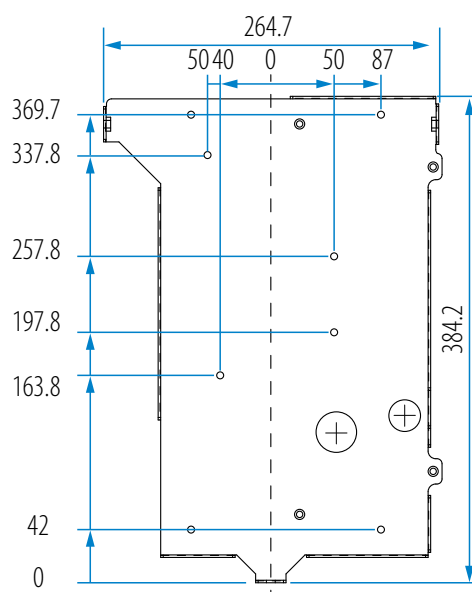
3. DIMENSIONS

3.1 MAIN SIZE OF CHARGER (CABLE MODEL)

(unit:mm)

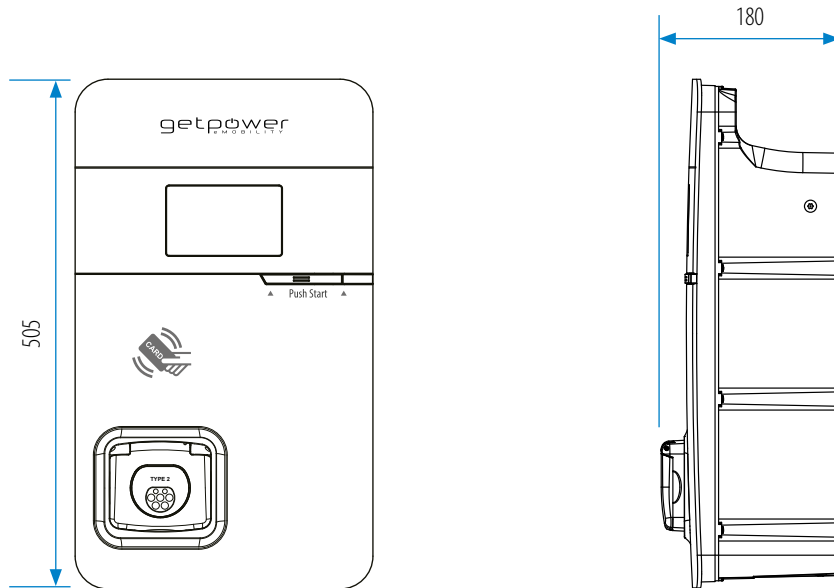


3.2 WALL-MOUNT BRACKET

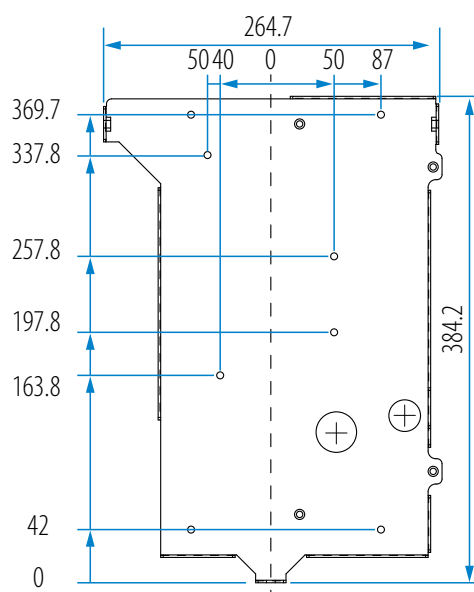


3.3 MAIN SIZE OF CHARGER (SOCKET WITH SHUTTER MODEL)

(unit:mm)



3.2 WALL-MOUNT BRACKET



4. SPECIFICATION

Model Name		AX Series
Power INPUT	Number of Phase	Three-phase L1, L2, L3, N, PE
	Input Rating	380~415 Vac, 50 / 60 Hz
	Grounding System	TT / TN and IT
	Input Type	Hardwire
Power OUTPUT	Output Current	32 A (22 kW), 16 A Type-E socket (Optional) (According to AC breaker capacity selection)
Protection	Input Side	Under voltage: 160 Vac
		Over voltage: 275 Vac
		Ground monitor interrupter
		Surge protection
	Output Side	Over current protection: 36.8 A (According to AC breaker capacity selection)
		RCD type A + DC 6 mA
	Internal	Over temperature: 88° C
		Relay status monitor
		RCD self-test
		MCU function fault detection
Energy Management	Chip Measuring	Accuracy 1% at rating power, resistive load (Standard)
	Additional Internal Meter	Accuracy at least 1% (Optional) MID certified
Load Management	AC breaker capacity selection, Local Load Balancing, OCPP Smart Charging	
User Authentication	RFID	ISO/IEC 14443 Type A/B, FeliCa
	ISO15118	2021Q4 EIM ready, 2022Q2 PnC ready
User Interface	LED indicator (Standard) / 5 inch LCD (Optional)	
Communication	4G (Optional)	LTE, WCDMA, GSM
	Wi-Fi	802.11 b/g/n 2.4G Hz
	Ethernet	10M/100M bps
Backend Support	OCPP 1.6J / OCPP 2.0	
Regulations	EVSE Standard	IEC 61851-1
	Vehicle Connector Standard	IEC 62196-2
Environmental	Operating Temperature	-30° C to +50° C
	Storage Temperature	-40° C to +70° C
	Operating Humidity	Up to 85 % at 50° C non-condensing
	Non-Operating Humidity	Up to 95 % at 50° C non-condensing
	Altitude	Up to 2000 m
Mechanical	Customized Panel	Changeable front panel design
	Ingress Protection	IP56 (Cable model) IP55 (Socket model)
	Enclosure Protection	IK10
	Cooling	Natural cooling
	Charging Cable Length	5 m Cable / Socket with Shutter

NOTICE: Max output current can be adjusted between 6 A and 32 A by rotary switch(refer to section 7.2 & 7.3)

5. STATUS DESCRIPTION OF THE CHARGER INDICATION LIGHTS

Work status	Blue	Green	Green
Initial	Constantly Bright (White)		
Idle Backend connected Sleep	–	Breath	–
Idle Backend connected	–	Constantly Bright	–
Idle Backend disconnected Sleep	–	Breath (Yellow)	
Idle Backend disconnected	–	Constantly Bright (Yellow)	
Authorize RFID authorization Pass		Flicker 3 sec	
Authorize RFID authorization Fail			Flicker 3 sec
Handshaking	Constantly Bright	–	–
Charging	Flicker	–	–
Terminate	Constantly Bright	–	–
Complete	Constantly Bright	–	–
Maintenance Upgrade	–	Flicker (Yellow)	
Reservation	–	Flicker	

6. SCREEN INSTRUCTIONS

6.1 STATUS BAR



Home page

Status code

- Ethernet Backend Status



Connection



Dis-Connection



Connection

- Wi-Fi Status



Connection



Dis-Connection



Connection

- 3G/4G Status



Connection



Dis-Connection



Connection

- OCPP Backend Status



Connection



Dis-Connection

6.2 STATUS CODE TABLE

*For latest status code, please visit our website.

Statuscode	Beschreibung
011004	RCD/CCID self-test fail
011009	AC output relay welding
011010	AC output relay driving fault
011021	WiFi module broken
011022	3G/4G module broken
011036	Rotary switch fault
012200	System L1 input OVP
012201	System L2 input OVP
012202	System L3 input OVP
012203	System L1 input UVP
012204	System L2 input UVP

Statuscode	Beschreibung
012205	System L3 input UVP
012212	System L1 input drop
012213	System L2 input drop
012214	System L3 input drop
012216	System AC output OCP L1
012223	System ambient/inlet OTP
012233	RCD/CCID trip
012241	WiFi module communication fail
012242	3G/4G module communication fail
012243	RFID module communication fail
012254	Fail to create share memory
012255	CSU initialization failed
012256	Ground Fault
012257	MCU self-test Fault
012262	System L1 output Circuit Short
012299	System AC output OCP L2
012300	System AC output OCP L3
012301	System L2 output Circuit Short
012302	System L3 output Circuit Short
012305	Meter communication timeout
012344	Meter IC communication timeout
012345	Pilot negative error
013607	CSU firmware update fail
013622	disconnected from Internet through Ethernet
013623	disconnected from Internet through WiFi
013624	disconnected from Internet through 3G/4G
013625	disconnected from AP through WiFi
013626	disconnected from APN through 3G/4G
023703	Pilot fault

7. INSTALLATION INSTRUCTIONS

7.1 BEFORE INSTALLATION

- Read all the instructions before using and installing this product.
- Do not use this product if power cable or charging cable have any damage.
- Do not use this product if the enclosure or charging connector are broken or open or if there is damage.
- Do not put any tool, material, finger or other body part into the charging connector or EV connector.
- Do not twist, swing, bend, drop or crush the charging cable. Never drive over it with a vehicle.



WARNING: The product should be installed only by a licensed contractor and/or licensed technician in accordance with all building codes, electrical codes and safety standards.



WARNING: The product should be inspected by a qualified installer prior to initial use. Under no circumstances will compliance with the information in this manual relieve user of his /her responsibilities to comply with all applicable codes and safety standards.

- Power feed must be 3 Phase Wye configuration with TN(-S)/ IT/ TT grounding systems.
- In the installation of TN(-S) system: the neutral (N) and the PE of the power distribution are directly connected to the earth. The PE of the charger equipment is directly connected to the PE of power distribution and separate conductor for PE and neutral (N).
- In the installation of IT system: the neutral of the power distribution system is isolated from the earth. The PE of the charger equipment is isolated to the PE of power distribution to the earth.
- In the installation of TT system: the neutral (N) and the PE of the power distribution are directly connected to the earth. The PE of the charger equipment is isolated to the PE of power distribution to the earth.
- The capacity of power supply should be higher than 28kVA in order to function correctly.

7.2 GROUNDING AND SAFETY REQUIREMENT

- The product must be connected to a grounded, metal, permanent wiring system.
- Connections shall comply with all applicable electrical codes. Recommend the ground resistance be less than 10Ω.
- Ensure no power is connected at all times when installing, servicing, or maintaining the charger.
- Use appropriate protection when connecting to main power distribution network.
- Use appropriate tools for each task.



CAUTION: The disconnect switch for each ungrounded conductor of AC input shall be provided by installation contractor or technician.



CAUTION: A cord extension set or second cable assembly shall not be used in addition to the cable assembly for connection of the EV to the EVSE.

7.2.1 SERVICE WIRING

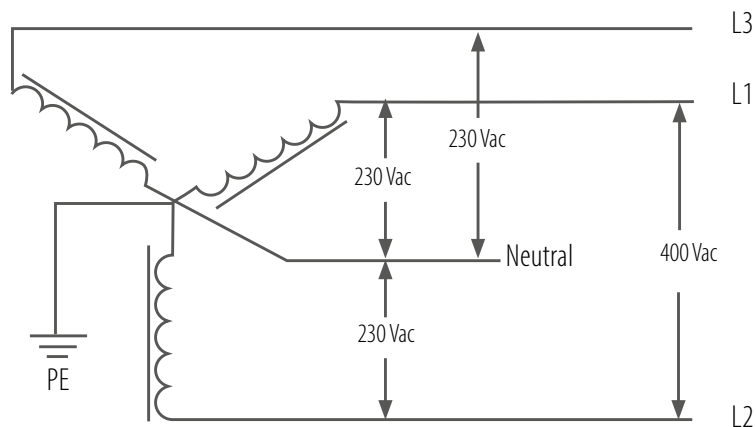
- **Ground Connection**

Always connect the Neutral at the service to Earth Ground. If ground is not provided by the electrical service then a grounding stake must be installed nearby. The grounding stake must be connected to the ground bar in the main breaker panel and Neutral connected to Ground at that point.

- **400 VAC (Line to Line) 3-phase**



CAUTION! This Wye-connection power grid feeds the charger by connecting L1, L2 or L3, and Neutral. Earth ground must be connected to neutral at only one point, usually at the breaker panel.



400 V Three-Phase wiring connection



DANGER! Be aware of high voltage!

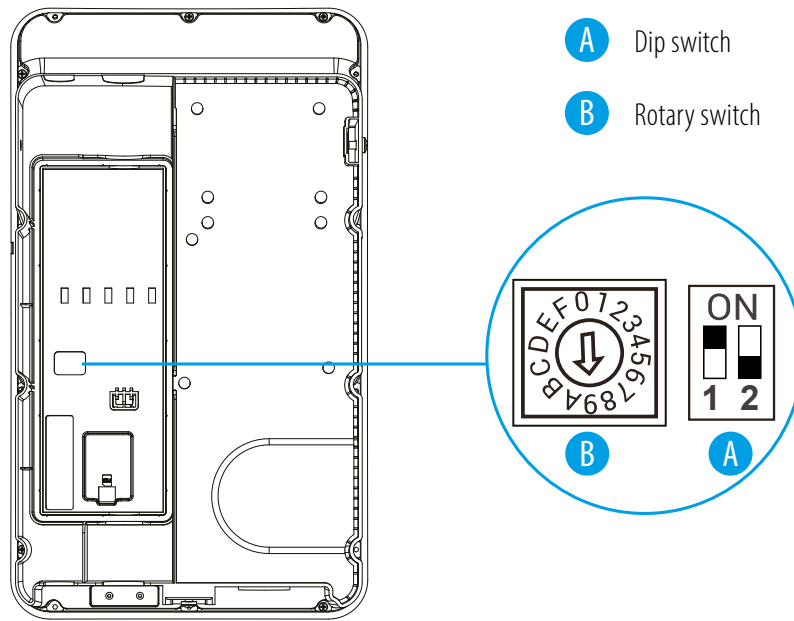


DANGER! Earth connection is essential!

- **The External (Upstream) Circuit Breaker**

Recommend to use external 4P breaker of the spec: Max. input current shall be over than 40A.
(E.g.: ABB breakers, Schneider EasyPact CVS series)

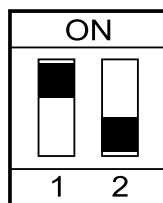
NOTICE: Max output current can be adjusted between 6 A and 32 A by rotary switch(refer to section 7.2 & 7.3)



7.3 POWER GRID CONNECTION AND GROUNDING TYPE

- This AC charger supports different power grid connections and grounding types. You can configure through the setting dip switch. Setting methods are shown below.
- Before setting the dip switch, make sure the input power is turned OFF.
- Use a non-conductive object to set the dip switch.

	Switch 1 (Power Grid Type)	Switch 2 (Grounding System)
ON	LN	IT
OFF		TT-TN



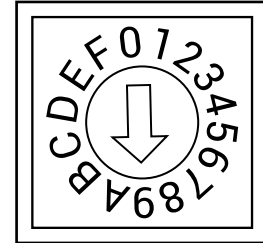
Note: The default value is Switch1-ON, Switch2-OFF (LN / TT-TN).

Note: If it is not the above standard grid type, please contact our technical staff for assistance and confirmation

Maximum Output Current

This AC charger can support different maximum output current through the setting rotary switch. Setting methods are shown below

- Before setting the rotary switch, make sure the input power is turned OFF.
- Use a non-conductive object to set the rotary switch.

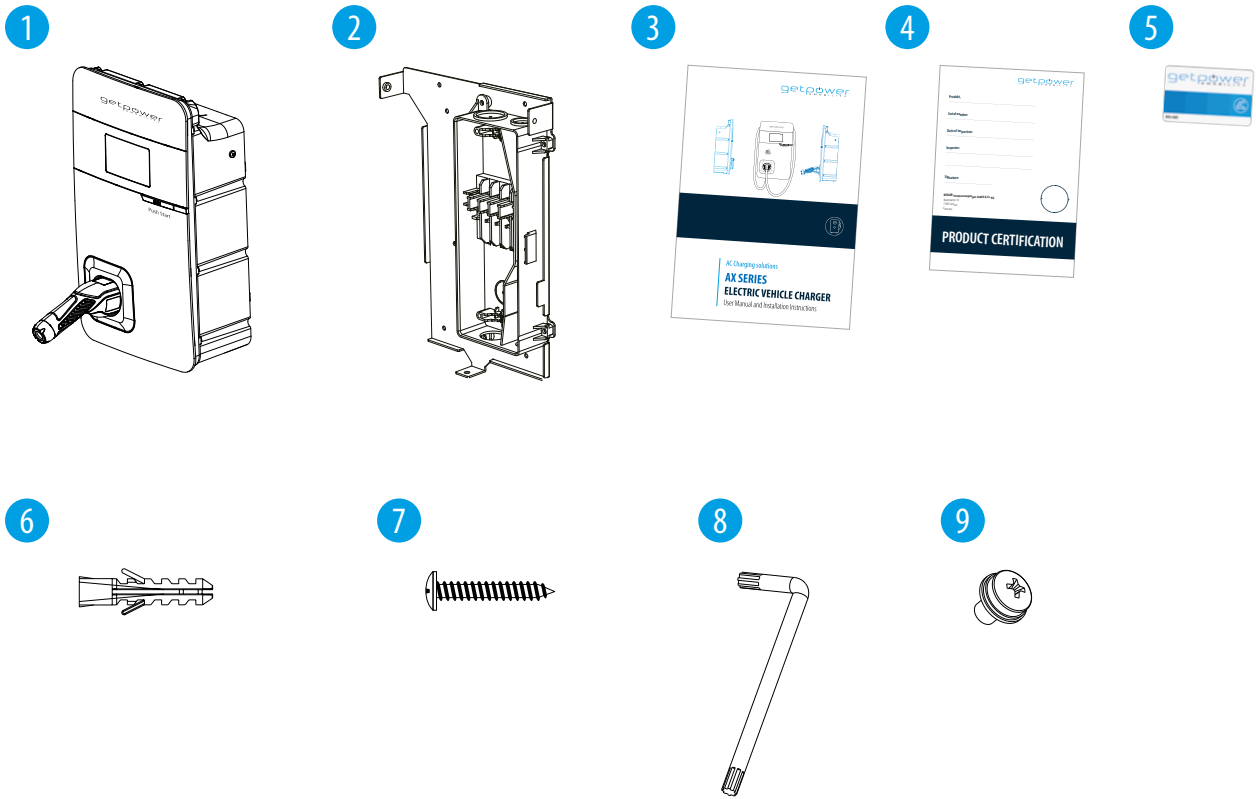


Switch Setting Number	0	1	2	3	4	5	6	7	8	9
Maximum Output Current	Test Mode	6 A	8 A	10 A	13 A	16 A	20 A	25 A	30 A	32 A

Switch Setting Number	A	B	C	D	E	F
Maximum Output Current	Invalid Setting	Invalid Setting	Invalid Setting	Invalid Setting	Invalid Setting	Slave Mode

Note: The default is 32 A.

7.4 PACKING LIST



Pos.	Description	Quantity	Remark
1	AC Charger	1	
2	Wall-Mount Bracket & Wirebox	1	
3	User Manual	1	
4	Product Certification	1	
5	RFID Card	2	
6	Expansion Screw	4	
7	M5 Self-Tapping Screws	4	
8	Torx/T30 L-Wrench	1	
9	M4 Screw	5	

7.5 TOOLS AND MATERIALS REQUIRED

Tools required before installing the charger onto the Wall-Mount Bracket are:

- Wire stripper
- Crimpers for ring terminals
- Phillips screwdriver for M4 ~ M6
- 1-3/8 inch or 34 mm drill bit
- Voltmeter or digital multimeter (for measuring AC voltage at the installation site)
- The inserting cable should meet the best waterproof performance. It is recommended to use a 5core / 8 AWG or 8 mm²~10 mm² cable (XLPE-90° C, THHN-90° C, or equivalent) to pull the cable from the distribution box. The maximum outer diameter of the cable should be 16 mm ~ 23 mm.
- Level ruler
- Pencil or marker
- Machine drill
- Ring terminal (recommend type 8-4) for 8 AWG wire, and fixed by M4 slotted head screw.
- Slotted head screwdriver for M4.

7.6 WALL-MOUNT BRACKET INSTALLATION REQUIREMENTS

Before installing the wall-mount bracket, you should confirm that the loading capacity of the wall can reach a weight of 40 kg. When installing on a cement wall, you can use the included expansion screw to install the bracket and use a cement drill to drill holes on the cement wall following the the installation steps in next page.

When installing on a wooden wall, you can directly use the included M5 self-tapping screws to install the wall-mount bracket and use the wall-mount backplane to lock and install on the wall directly.

7.7 AX INSTALLATION REQUIREMENTS

- To select the best location and position to install the wall-mount unit, you should first determine the parking position of the vehicle to ensure the charging connector can be easily inserted into the vehicle charging inlet.
- The wall-mount unit should be located:
 - In a well-ventilated area. Avoid installing in closed boxes or near the exothermic chargers.
 - 1.2 meters or 4 feet above the floor.
 - 250mm (10inches) from any obstacles to allow cables to loop around the wires and related maintenance.
 - If in an enclosed garage, installing on the side of vehicle charging inlet.

7.8 INSTALLATION STEPS

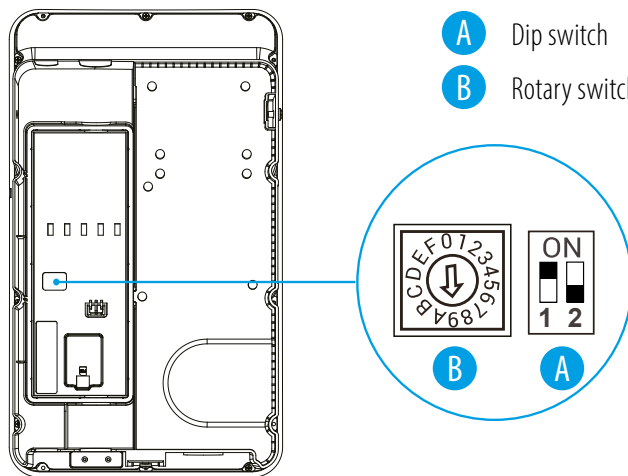


Warning for Wi-Fi and 4G versions: Due to different congenial environments, it is recommended to first conduct Wi-Fi and 4G module network signal tests before finalizing your settings. It is recommended that the RSSI (Received Signal Strength Indication) value should be higher than -65 dBm. If it is lower than this value, it may result in a weak Wi-Fi or 4G connection or disconnection due to external interference in the area.

Step 1

Setting of the power supply type and grounding type

There are different settings depending on the field and country where the machine is installed. Please refer to Section 7.3 "Power Grid Connection and Grounding Type" for details.

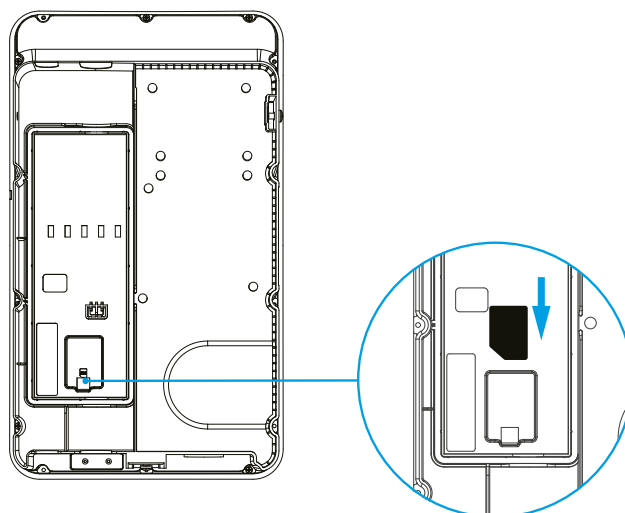


Step 2

Installation of the SIM card (only available for 4G models)



Attention: Please confirm that the SIM card password has been removed prior to the installation, as the charger post does not support SIM cards with passwords.



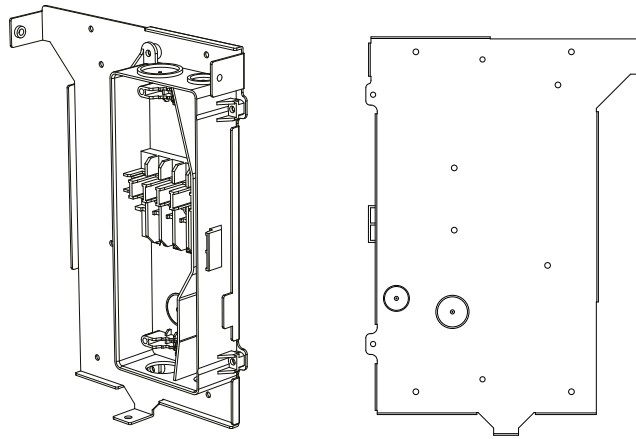
Step 3**The Wirebox**

Choose a direction for installing the AC input cables and Ethernet cable. The input cables of charger can be wired from 3 directions (bottom, back and top directions) of the wirebox.

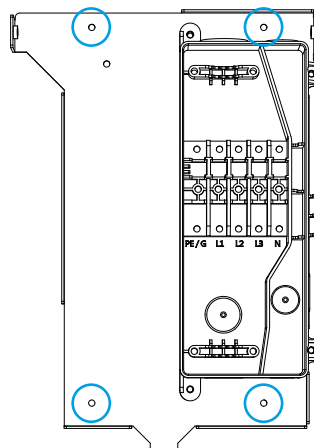


WARNING: Top direction is NOT recommended for outdoor usage due to waterproof issue.

Remove the bottom-left cover of AC input hole (for bottom direction), or drill a $\phi 34.5$ mm hole on the wirebox (for other directions). For Ethernet cable, remove the bottom-right cover or drill a $\phi 20.5$ mm hole on the wirebox

**Step 4****Wall-mount Bracket Installation**

Use a pen or any tool to mark four points on the wall through the installation holes of the bracket, indicated as the figure below. Fix 4 sets of M5 x 40 mm plastic expansion screws (in kit package) on the concrete wall, and then install the bracket & wirebox to the wall.

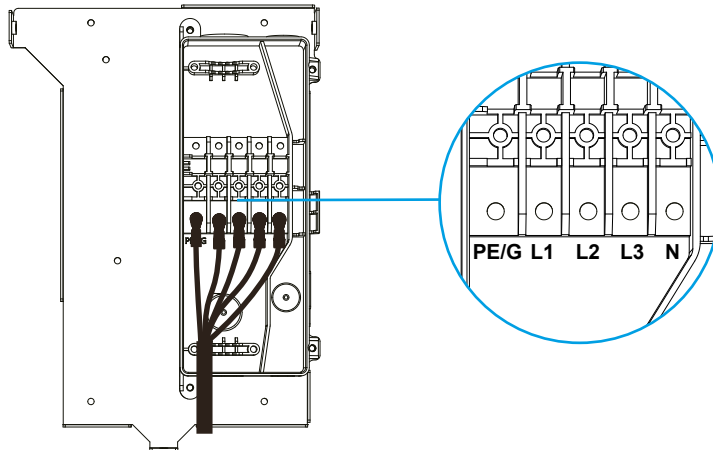


Step 5

Connecting 3-Phase Input Cables

Five input cables (PE/L1/L2/L3/N) shall be AWG 8 (cross section $8 \text{ mm}^2 \sim 10 \text{ mm}^2$), and shall be fully crimped and connected with O-ring terminals properly. Fasten the cable terminals with the wirebox using M4 screws (torque 10 kg-cm). The corresponding connectors PE/L1/L2/L3/N from left to right are indicated on the wirebox.

NOTICE: To avoid possible voltage drop with long input cables, the length of the input cables should not be over 50 m.

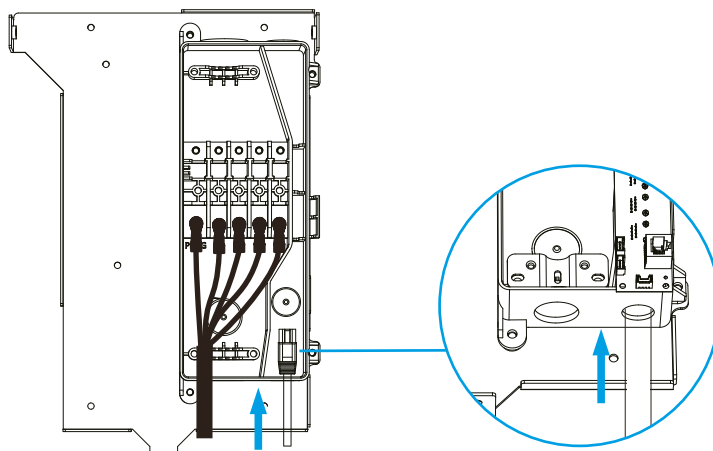


Step 6

Connecting Ethernet cable

Pull the Ethernet cable through the corresponding hole, and insert it to the RJ45 port on the back of the charger (see next step).

NOTICE: Waterproof cable glands are recommended for outdoor usage.

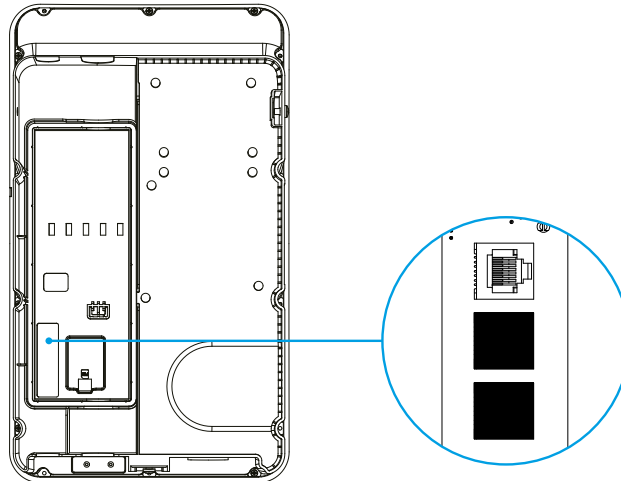


Step 7

Installation of the charger

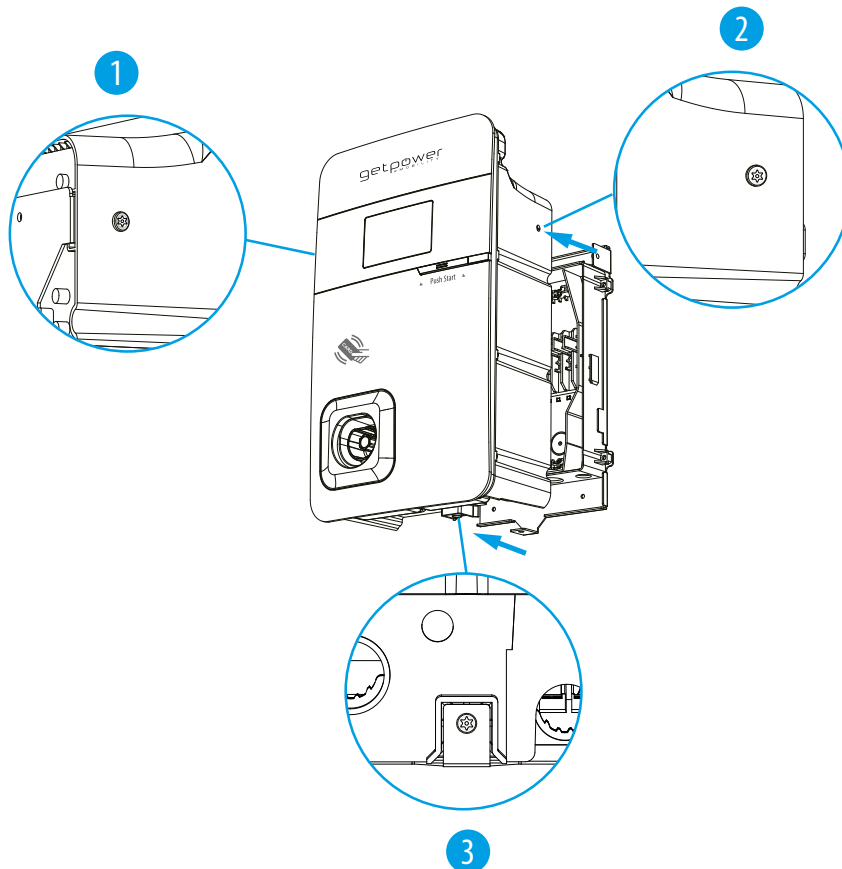
First, connect the network cable to the charger.

NOTICE: The network cable needs to be connected to the correct socket.



Next, align the charger and the bracket, so that the AC blade connectors on the charger can be inserted into the conductive blade connectors of the wirebox. Meanwhile, apply pressure to the charger, so that 3 screw holes of the charger align with 3 screw holes of the wall-mount bracket.

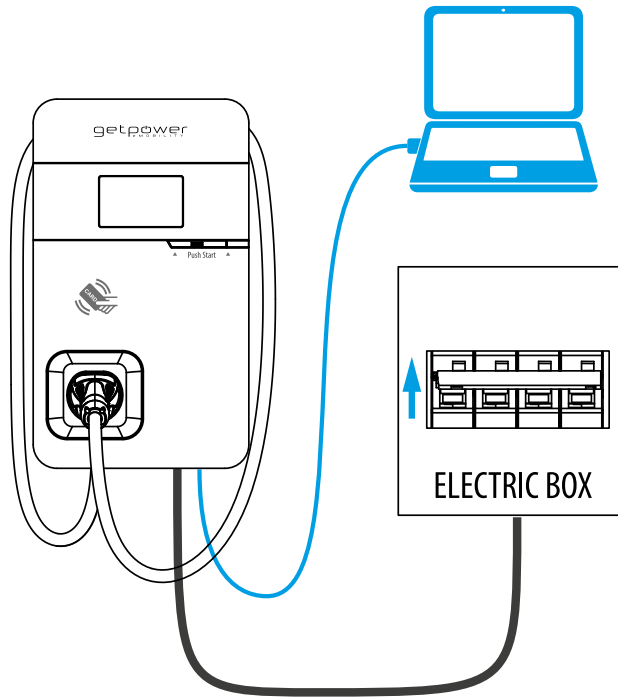
Finally, tighten the M6 Torx screws (Torque 30 kg-cm) in the order of left -- right -- bottom.



Step 8

Power on the machine for the setting of the charger

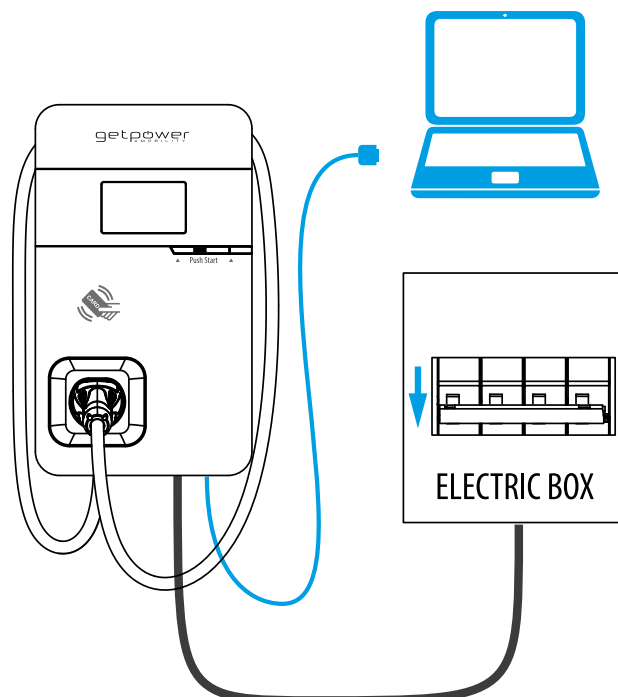
For setting instructions, please refer to Chapter 8. „Charger Standard Setting“



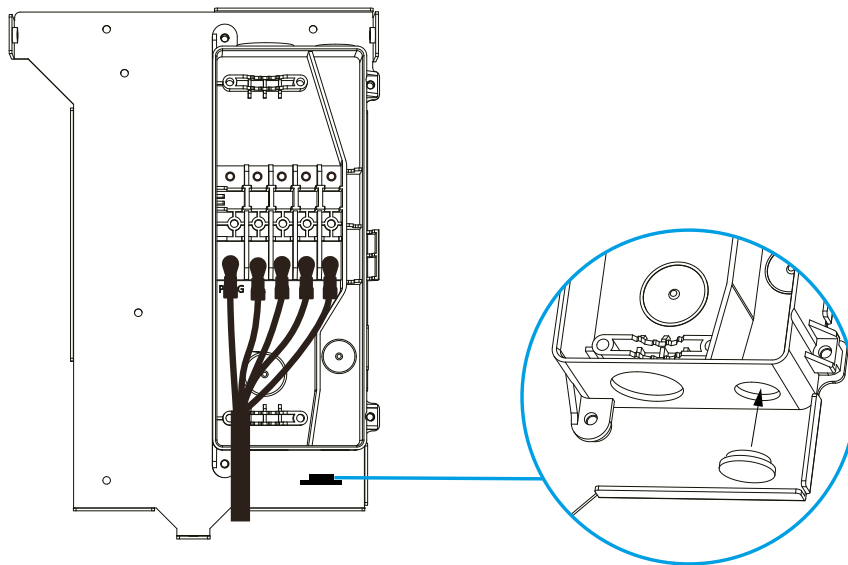
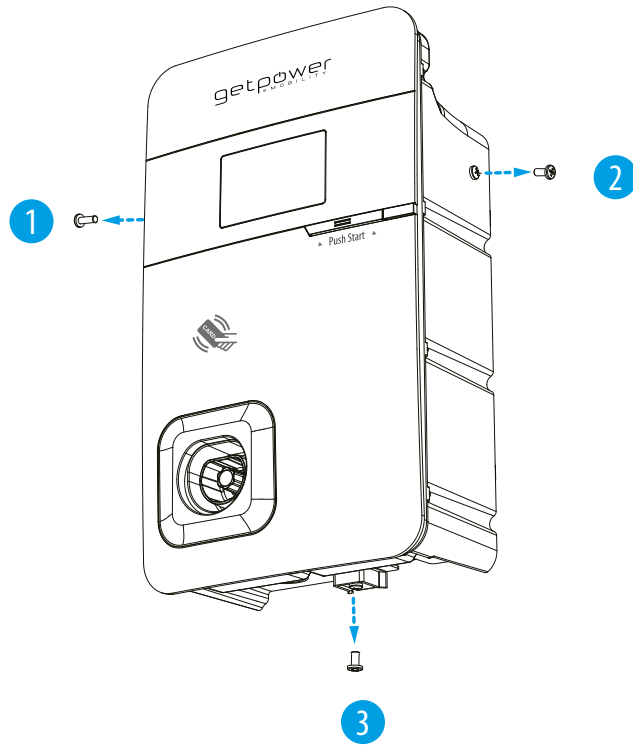
Step 9

Power off the machine and remove the network cable (For those in a wired network environment, continue to next step)

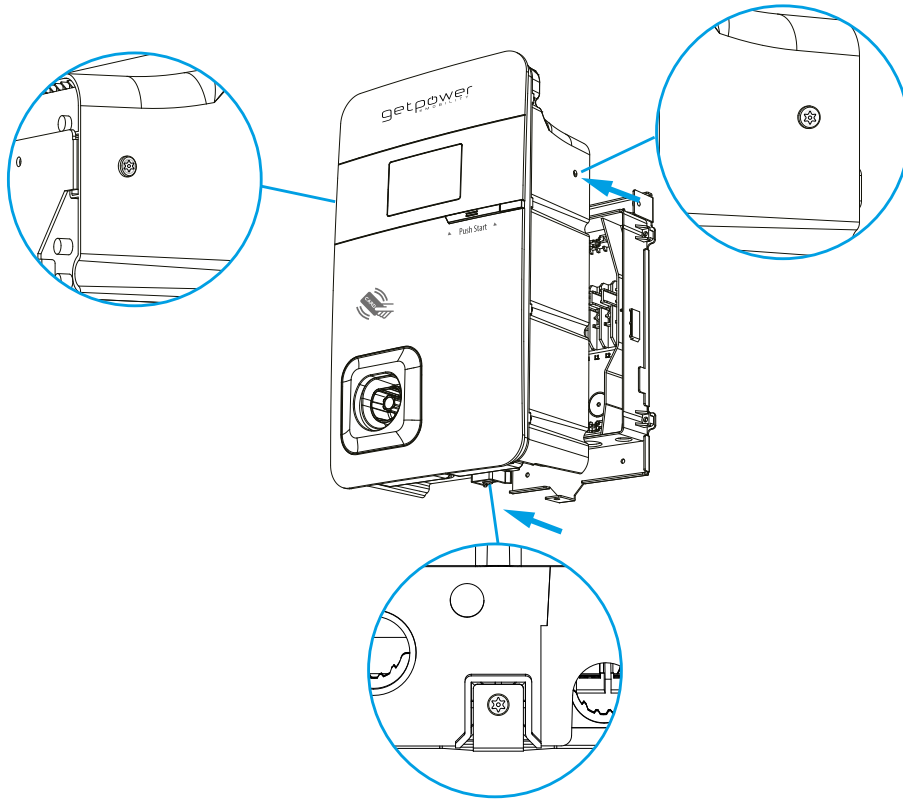
If the Ethernet connection is not required, power off the machine and remove the network cable once the setting is completed.



Remove the three screws on the charger in the order of bottom - right - left. Pull the network cable out of the wire box, then remove the network cable. Install the cover back to the hole, then re-install the charger and wire box again.



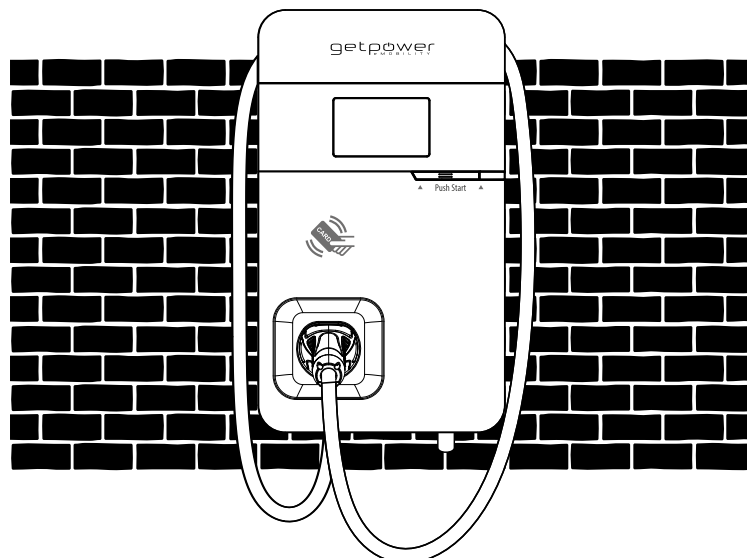
Let the three screw holes of the equipment align with the three holes of the wall-mounted bracket, then tighten with the M6 Torx screws in the order of left - right - bottom, where the tightening torque should be 30 kg-cm.



Step 10

Organizing the Charging Cable (For Cable Version)

Finally, organize the charging cable and hang the cable carefully on the charger. The cable shall not touch the ground for safety consideration. After organizing the cable, plug the gun into the front socket and the installation is complete.



8. CHARGER STANDARD SETTING

8.1 TIME SETTING

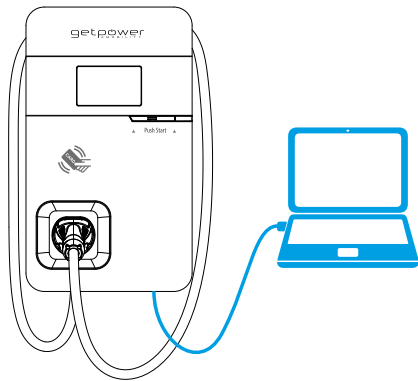
Automatic setting: The time will be adjusted automatically when the charger connects to internet.

Time server :

- time.windows.com
- cn.ntp.org.cn
- tock.stdtime.gov.tw

Note: Firewall and network environment may influence the time server connection

Manual setting:



Step 1

- Laptop with RJ45 interface.
- Connect RJ45 cable from laptop to charger’s RJ45 port.
- Setup parameters in the web service.

Use the following IP address:

IP address:

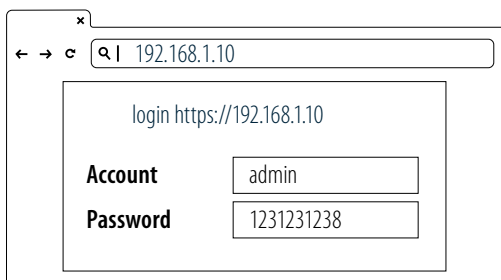
Subnet mask:

Default gateway:

Step 2

Change the IP Address on your laptop computer by accessing the network card settings. Change the TCP / IP automatic IP to fixed IP.

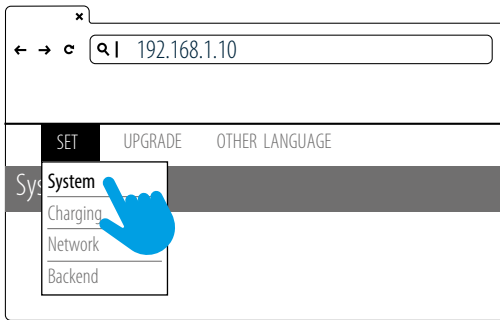
- IP Address:192.168.1.1
- Subnet Mask: 255.255.255.0



Step 3

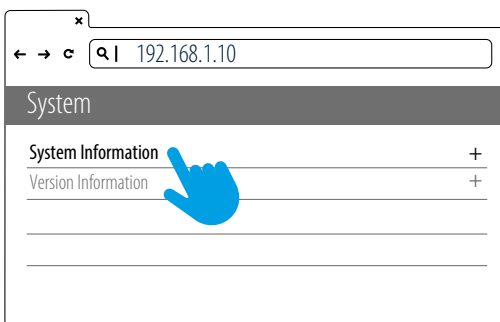
Open a browser and enter IP Address 192.168.1.10 to login into the setup page. Use the following credentials to login.

- Account: admin
- Password: 1231231238



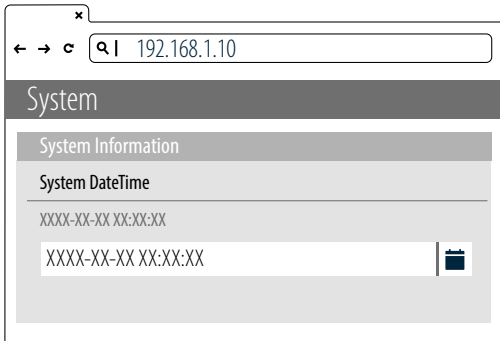
Step 4

Select „SET“ at the top of the webpage to enter the settings page. Select “Network” to enter the network settings page.



Step 5

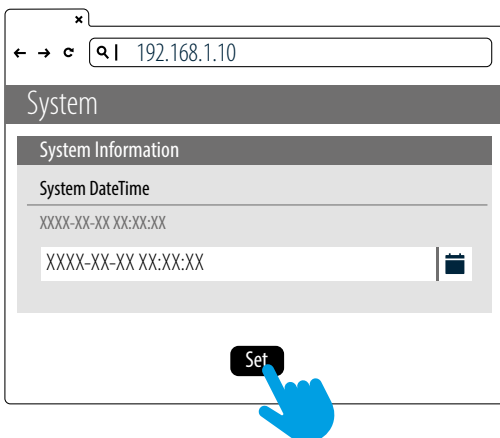
Click „System information“.



Step 6

Click system date time.

Click the calendar button on the right to set the current time.

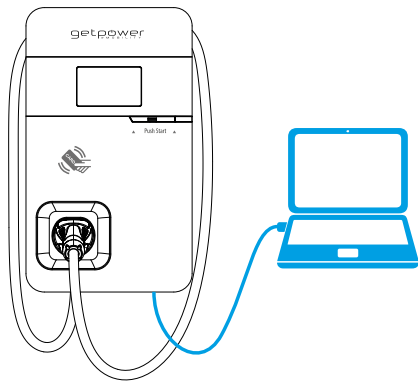


Step 7

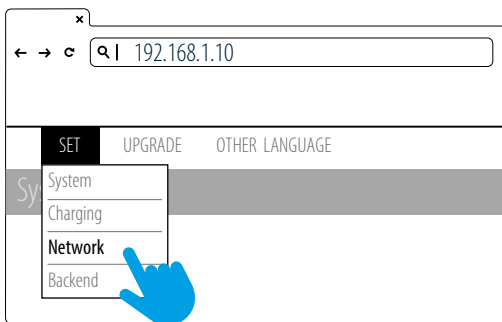
After the setting is completed, click SET and wait until the setting completion window appears.

- For the Networking Edition, restart the charger.
- For Wi-Fi and 4G versions, continue to step 8.2 or 8.3 to complete the settings process.

8.2 WI-FI NETWORK SETTING

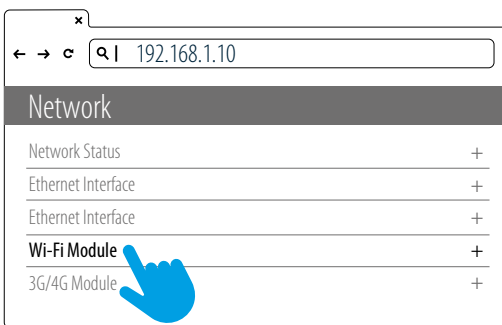


- Laptop with RJ45 interface.
- Connect RJ45 cable from laptop to charger’s RJ45 port.
- Setup parameters in the web service.



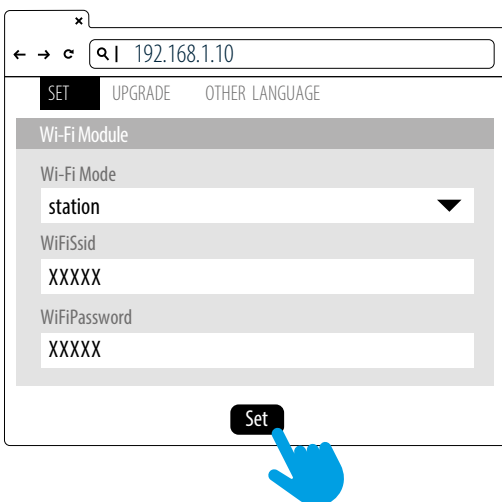
Step 1

Select „SET“ at the top of the webpage to enter the settings page. Select “Network” to enter the network settings page.



Step 2

Select Wi-Fi to enter the Wi-Fi Module settings page



Step 3

Keep the Wi-Fi Mode set to “Station” and enter the Wi-Fi SSID name and the Wi-Fi password. Save settings by selecting SET.

Step 4

After completion, click SET and wait until the setting completion window appears. Restart the charger.

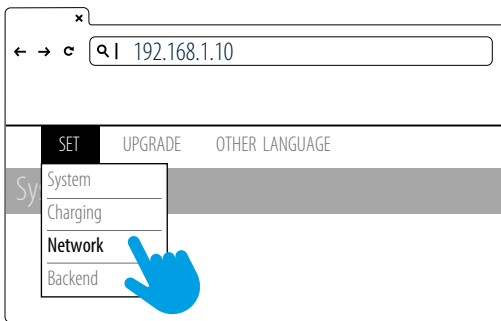
- For other settings (such as OCPP, etc.), please contact our professional staff.

8.3 4G SETUP (FOR THE OPTIONAL 4G EDITION)



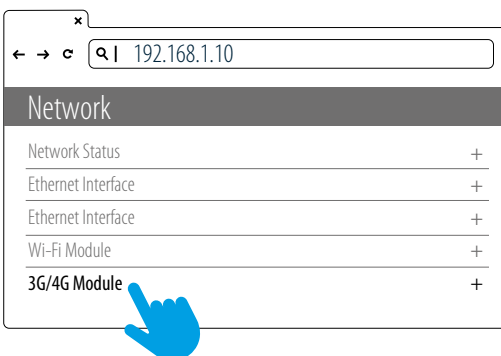
Attention:

Notice! Please confirm that the SIM card password has been removed prior to the installation, as the charger post does not support SIM cards with passwords.



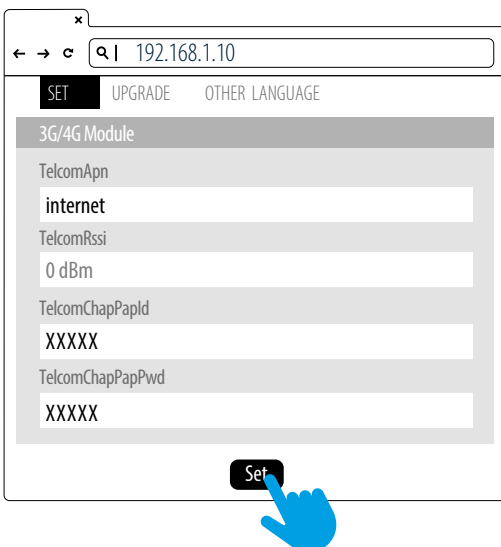
Step 1

Select „SET“ at the top of the webpage to enter the settings page. Select “Network” to enter the network settings page.



Step 2

Select 3G/4G module to enter the 4G settings page.



Step 3

Enter the Carrier APN and then click “OK.” Wait for the page to refresh. The page should now show RSSI, and the Network Connection “Status” should show “Connected.”

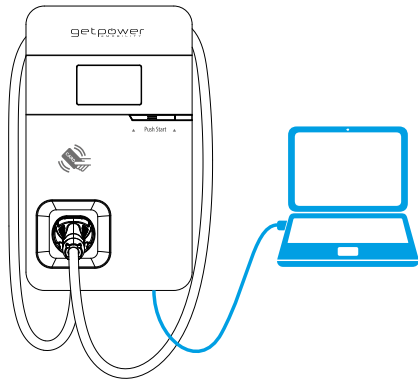
Step 4

After completion, click SET. Wait for the setting completion window to appear. Click “Confirm” to finish the setting. Restart the charger.

Note: For other settings (such as OCPP, etc.), please contact our professional staff.

8.4 RE-CHECKING THE WI-FI AND 4G SIGNAL STRENGTH ON POWER-UP.

After restarting the charger, check the connection signal strength. The RSSI (Received Signal Strength Indication) should be higher than -65 dBm. If the value is lower, you may experience a weak Wi-Fi signal connection or even disconnection.



Step 1

- Connect the RJ45 cable to the charger. Connect the RJ45 cable to the notebook.

Use the following IP address:

IP address:

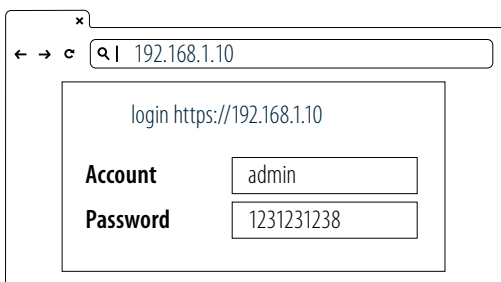
Subnet mask:

Default gateway:

Step 2

Change the IP Address on your laptop computer by accessing the network card settings. Change the TCP / IP automatic IP to fixed IP.

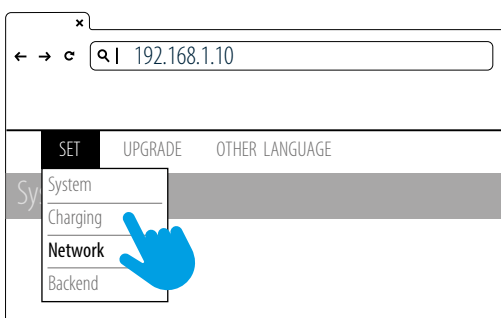
- IP Address:192.168.1.1
- Subnet Mask:255.255.255.0



Step 3

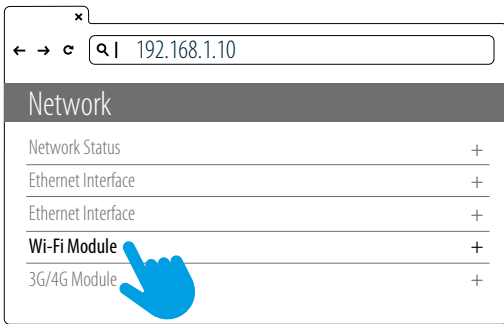
Open a browser and enter IP Address 192.168.1.10 to login into the setup page. Use the following credentials to login.

- Account: admin
- Password: 1231231238



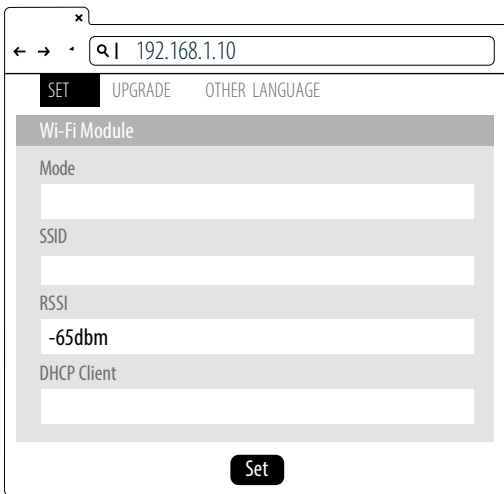
Step 4

Select „SET“ at the top of the webpage to enter the settings page. Select “Network” to enter the network settings page.



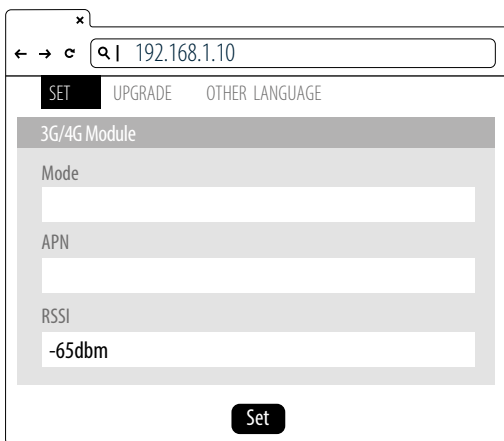
Step 5

Select the Wi-Fi and 3G/4G module to enter the setting.



Step 6 (Wi-Fi Version)

Make sure the Wi-Fi strength is higher than -65dbm.



Step 7 (4G Version)

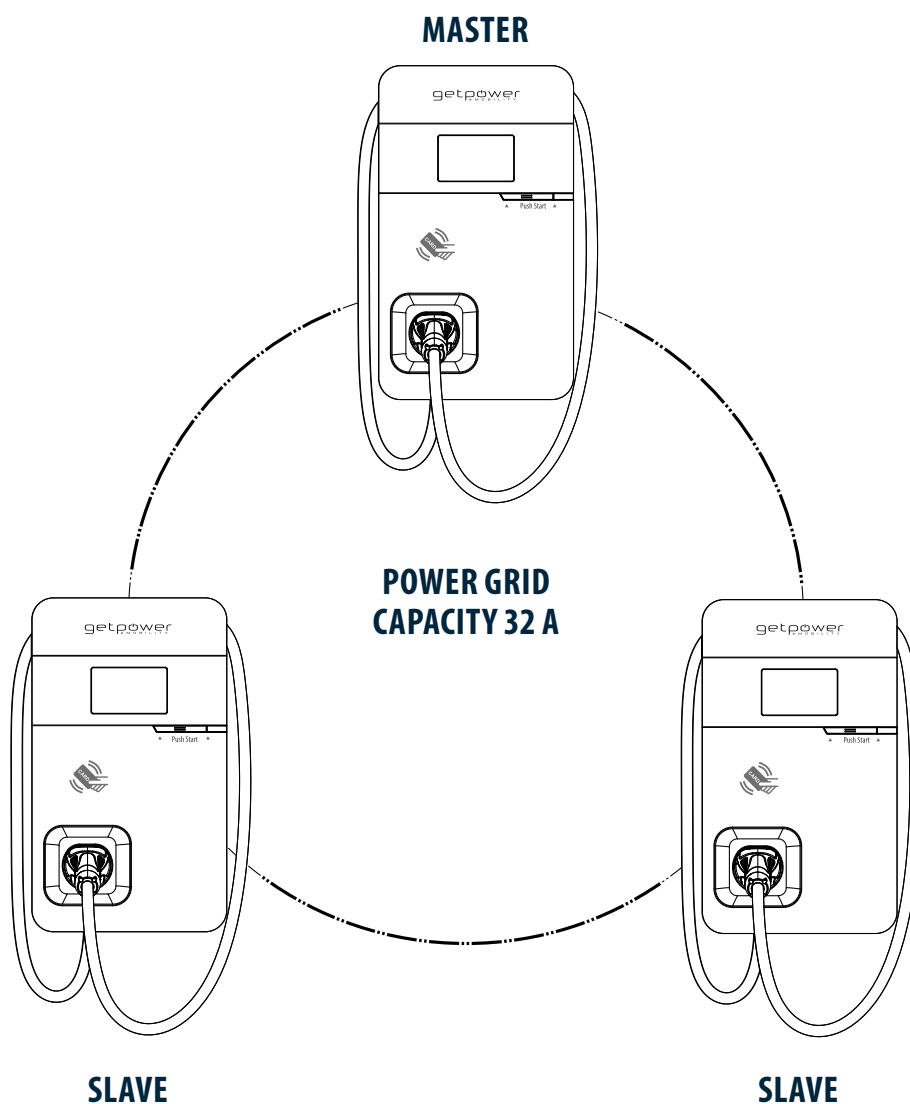
Check that the strength of 4G must be higher than -65dbm.

9. LOCAL LOAD BALANCE MODE (OFFLINE ONLY)

- When selecting Local Load Balance Mode, there must be a minimum of 2 of the same model, and no more than 5 including the master.
- This mode is only available when there is no Internet connection.
- This mode allows chargers in the same local area network (LAN) to communicate with each other via Wi-Fi to achieve the function of smart power distribution. It maximizes the benefits of the charging LAN.

NOTE: This mode cannot be used when connected to the internet, it is only available in offline mode.

NOTE: This mode only supports an output current of 32 A or less.



Usage example: LAN containing three devices

Maximum output of devices: 32 A

Number of devices: 3.

Scenario 1:

If there is only one charging device in use in the charging LAN, the master will authorize maximum current output to the device in use, including if only the master is in use.

Scenario 2:

If there are only two charging devices in use in the charging LAN, the master will authorize the output current to be divided equally between the devices in use.

Therefore, the output current divided equally between the two devices is $(32\text{ A} \div 2 = 16\text{ A per device})$.

Scenario 3:

If all three charging devices in the charging LAN are in use, the master will authorize the output current to be divided equally between the used devices.

Therefore, the output current divided equally between the three devices is $(32\text{ A} \div 3 = 10.6\text{ A per device})$.

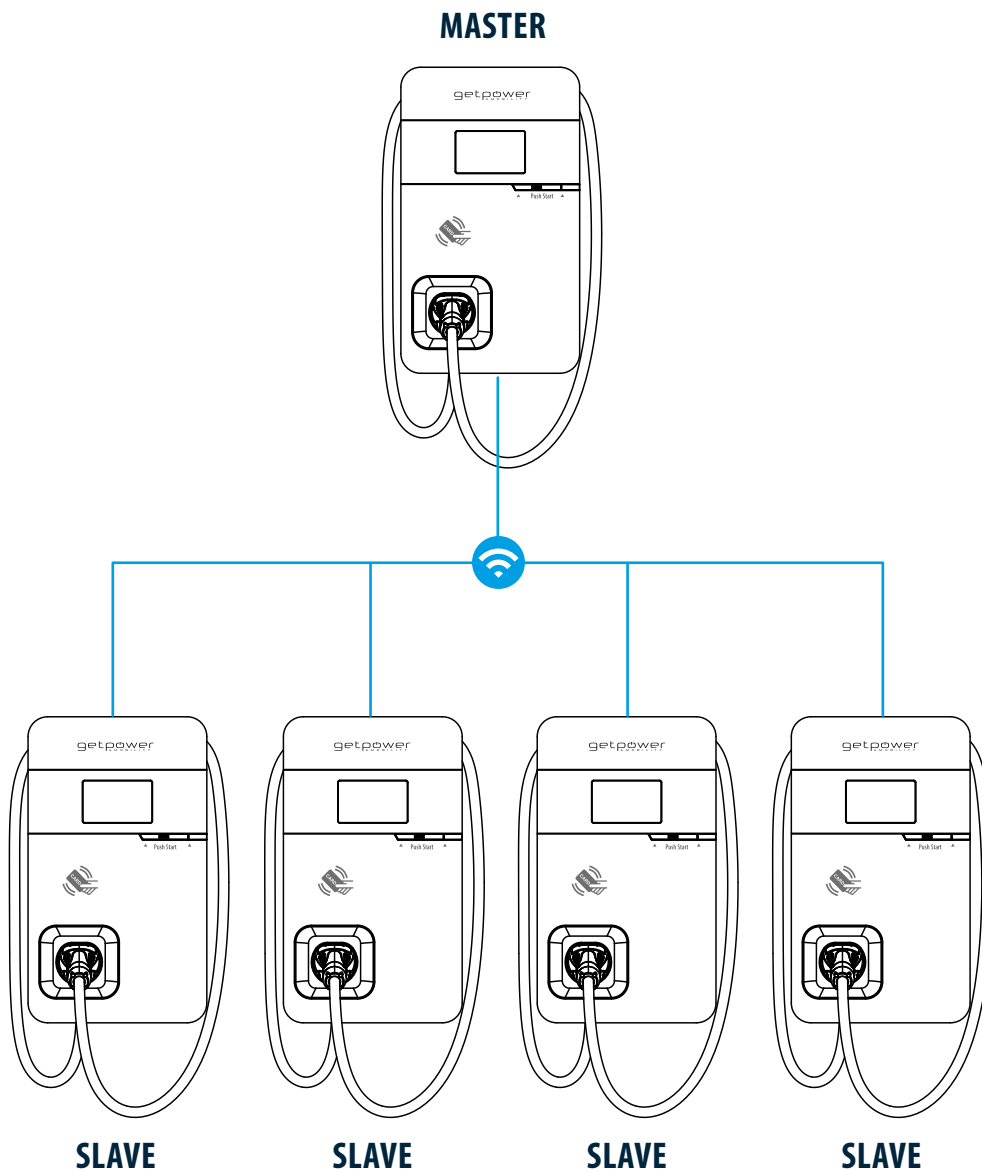
Remarks: The output current also depends on the actual axle load of the electric vehicle.

9.1 OPERATING PROCEDURE

Step 1

Setting up a master

If the charger still has the default factory settings, it can be used as the master without need for setup, but if other settings have already been completed on the charger, please first refer to Master Setup below.

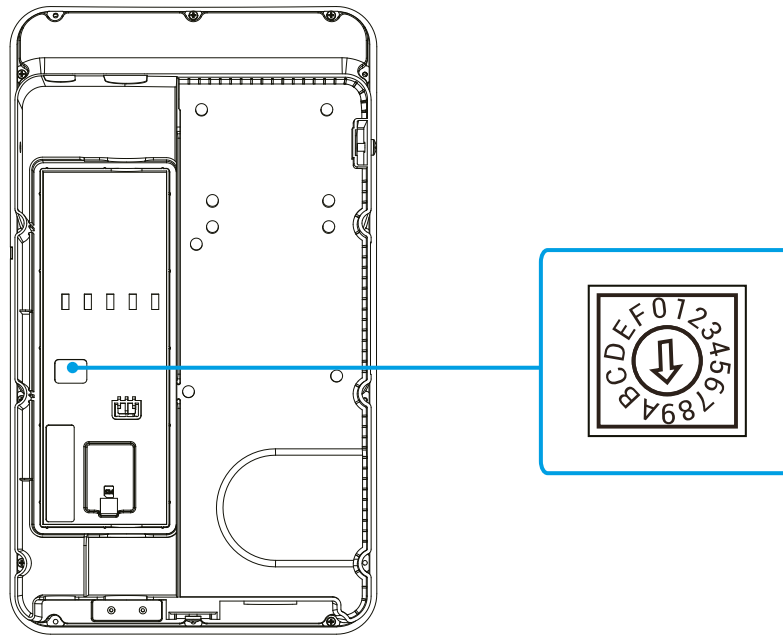


Step 2

Set Rotary Switch on Master

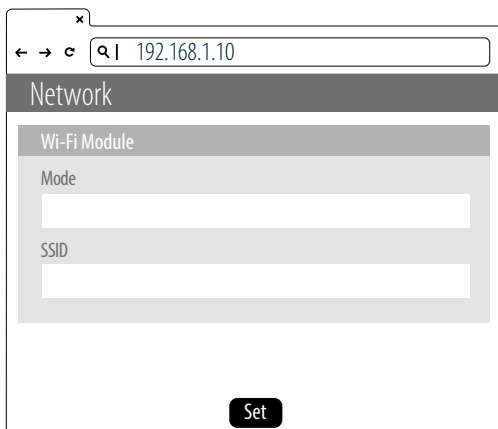
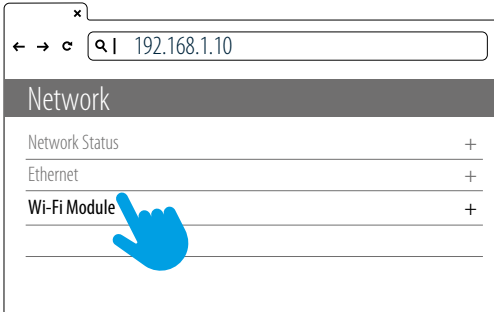
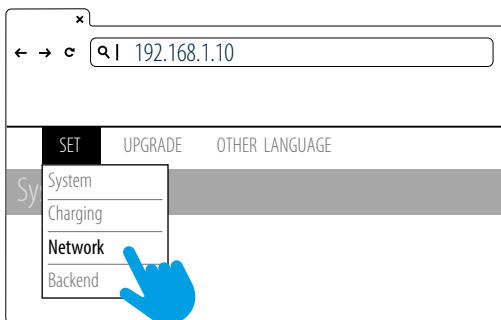
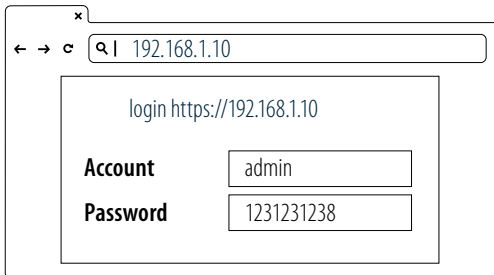
- The rotary switch needs to be set to the default value 9

NOTE: If the local mains power system does not support 32 A, please adjust according to the size of the local power load. The master will output current according to the set power level. For details on adjustment, refer to section 7.3. Maximum Output Current.



Step 3

Master Webpage Wi-Fi Setup



Step 1

Open a browser and enter IP Address 192.168.1.10 to login into the setup page. Use the following credentials to login.

- Account: admin
- Password: 1231231238

Step 2

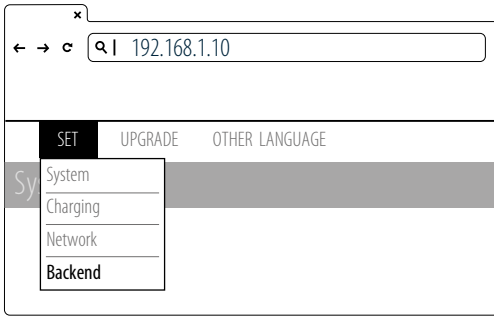
Select „SET“ at the top of the webpage to enter the settings page. Select “Network” to enter the network settings page.

Step 3

Select Wi-Fi to enter the Wi-Fi Module settings page.

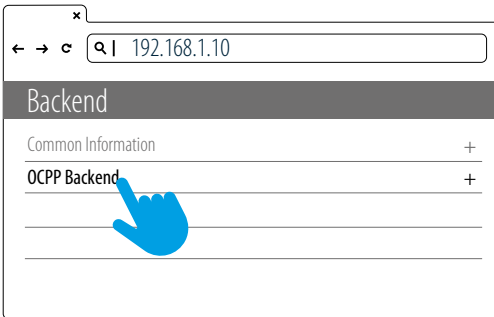
Step 4

For the „Mode“ select „Access Point“. The SSID is automatically generated and does not need to be entered. SSID: Model name + Serial number. After selecting, press [Set] to save the settings.



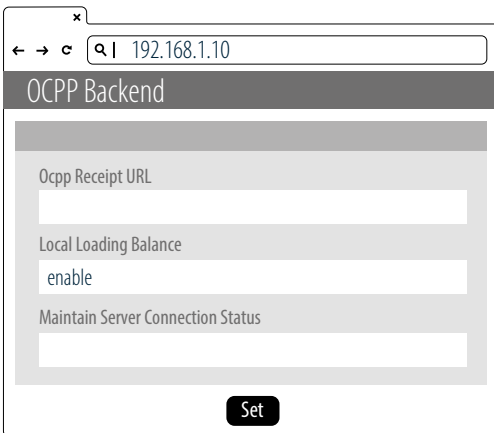
Step 5

Select „SET“ at the top of the webpage to enter the settings page. Select „Backend“ to enter the network settings page.



Step 6

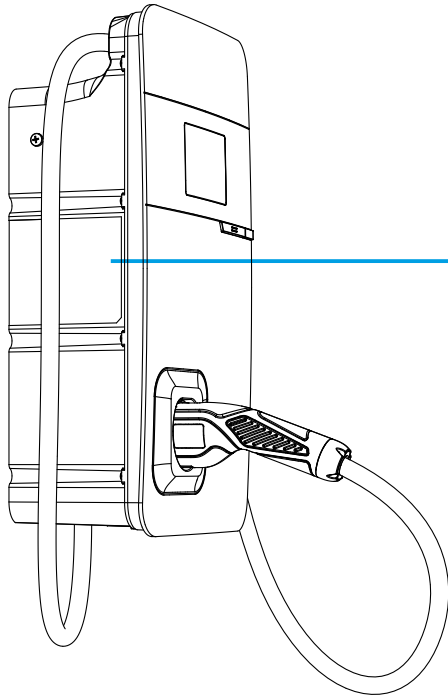
Select OCPP and set the Local load balance to enable



Step 4

Confirm Model Name and Serial Number of Master

Check the model name and S/N information on the model label located on the side of the device. When setting up connection on slave devices, the master device information will be used as the account and password.



getpower
e M O B I L I T Y

FOR USE WITH ELECTRIC VEHICLES. TYPE 3R IP55 ENCLOSURE, INDOOR/OUTDOOR USE. VENTILATION NOT REQUIRED. OPERATING TEMP: -30°C to 50°C.

CAUTION
Do not use this product if there is any damage to the EV connector or cable. Risk of electric shock. Do not remove cover or attempt to open the enclosure. No user serviceable parts inside. Refer servicing to qualified service personnel. To reduce the risk of electric shock and fire - Do not connect to a circuit operating at more than 150 volts to ground.

WARNING
Risk of explosion. This equipment has arcing or sparking parts that should not be exposed to flammable vapors. This equipment should be located at least 18 inches (460 mm) above the floor. Automatic reset feature is provided. To reduce the risk of fire, replace only with same type and ratings of fuse. This device is intended only for charging vehicles not requiring ventilation during charging.

Model Name: **AXYM221003D1P1**
 Input : 3Φ+N+PE, 380-415Vac, Max. 32A, 50/60Hz
 Output : 3Φ+N+PE, 380-415Vac, Max. 32A, 50/60Hz
 Outdoor Use : IP56
 Operation Temperature : -30°C to 50°C
 Manufacturer : Phihong Technology Co., Ltd.
 Address : No.568, Fuxing 3rd Rd., Guishan Dist.,
 Taoyuan City, Taiwan
 S/N : **D2201A001A1**

CE

-RW

Example:

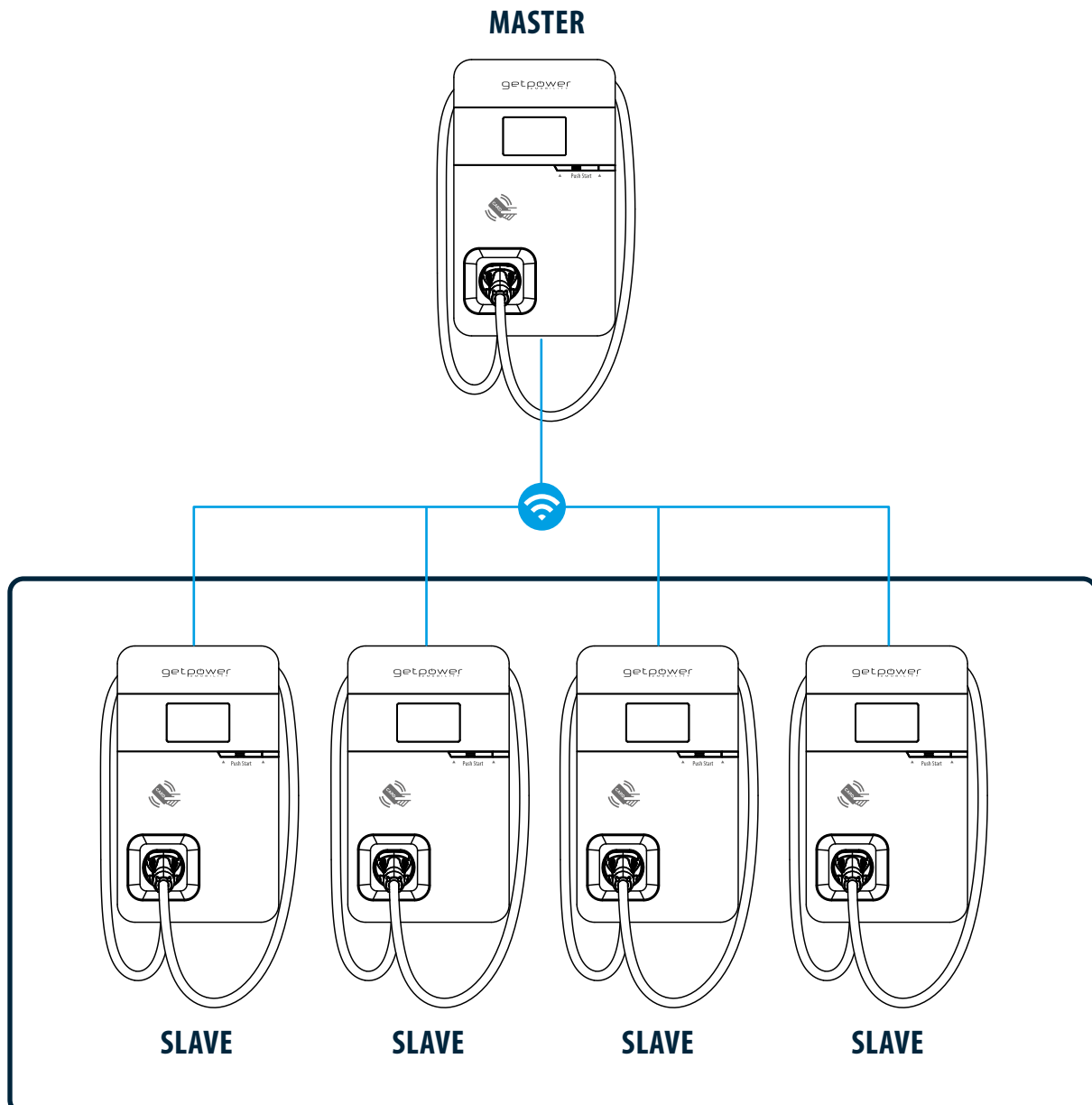
Slave SSID: AXYM221003D1P1D2201A001A1

Slave password: D2201A001A1AXYM221003D1P1

Step 5

Installation plan of master and slaves

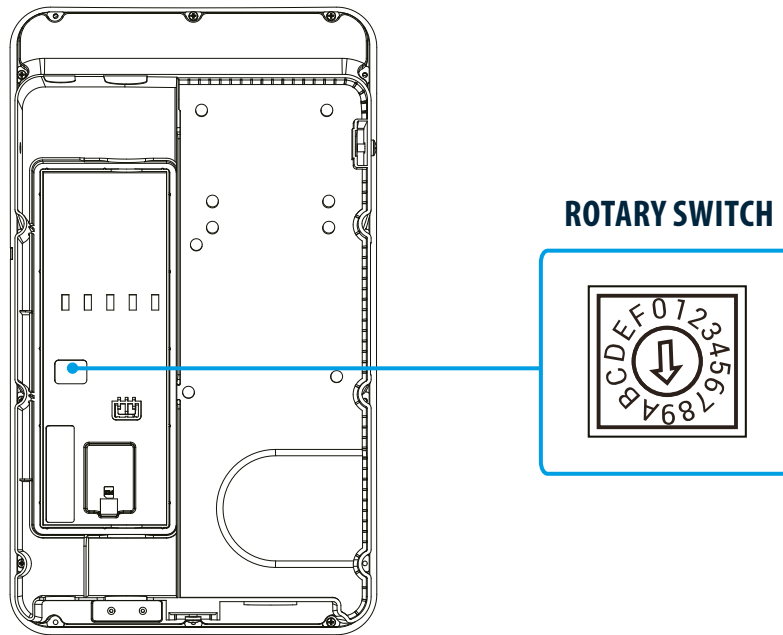
- Make sure that the number of slaves does not exceed 4
- There must be no walls or obstructions that affect communication between master and slaves
- It is recommended that the master be located in the middle of all the slaves, to ensure the best signal reception



Step 6

Set Rotary Switch on Slave

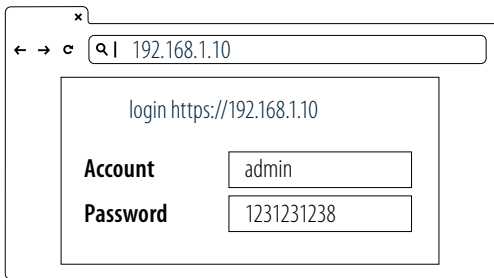
Turn the charger around so that the rear side is facing you. Find the rotary switch and rotate it to the F position.



Step 7

Set Slaves to Connect to Master

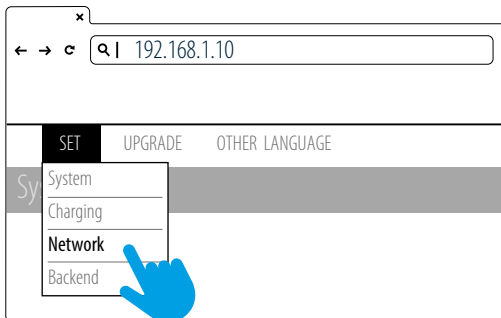
This setup procedure connects the slaves to the master to form a local area network (LAN).



Step 1

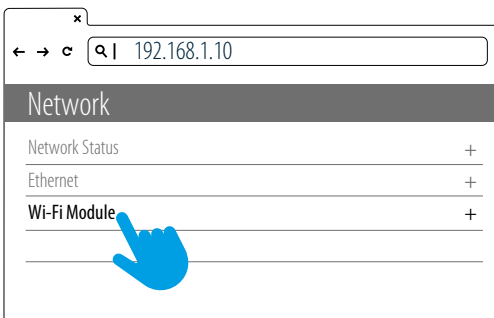
Open a browser and enter IP Address 192.168.1.10 to login into the setup page. Use the following credentials to login.

- Account: admin
- Password: 1231231238



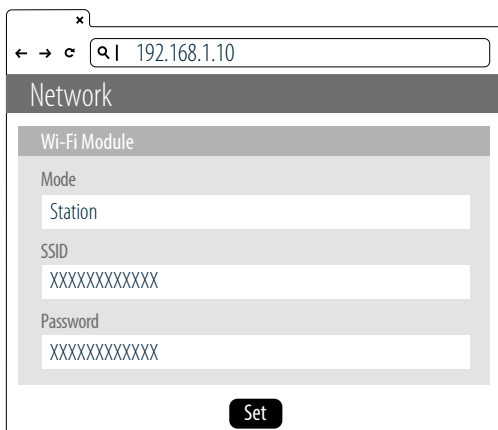
Step 2

Select „SET“ at the top of the webpage to enter the settings page. Select „Network“ to enter the network settings page.



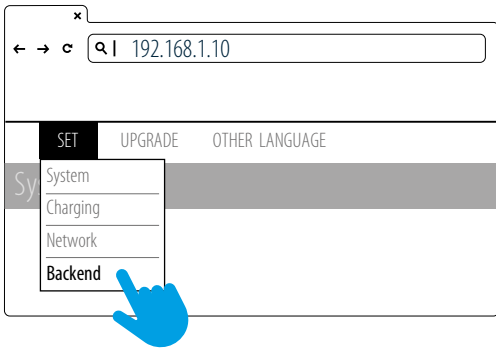
Step 3

Select Wi-Fi to enter the Wi-Fi Module settings page.



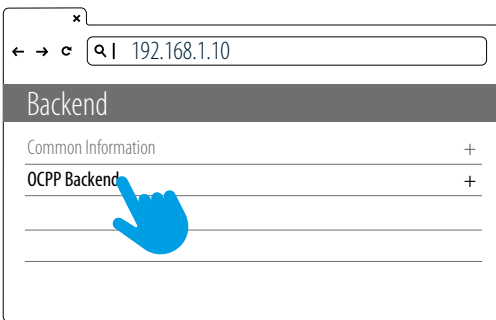
Step 4

Keep the Wi-Fi Mode set to „Station“ and enter the Wi-Fi SSID name and Wi-Fi password. Save the settings by selecting SET.



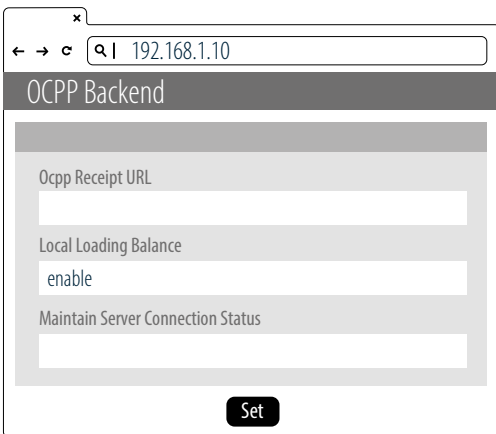
Step 5

Select „SET“ at the top of the webpage to enter the settings page. Select „Backend“ to enter the network settings page.



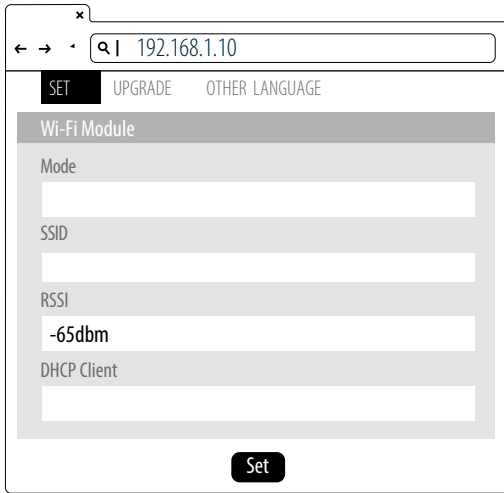
Step 6

Select OCPP and set the Local load balance to enable



Step 8

Check Master and Slave Connection Status

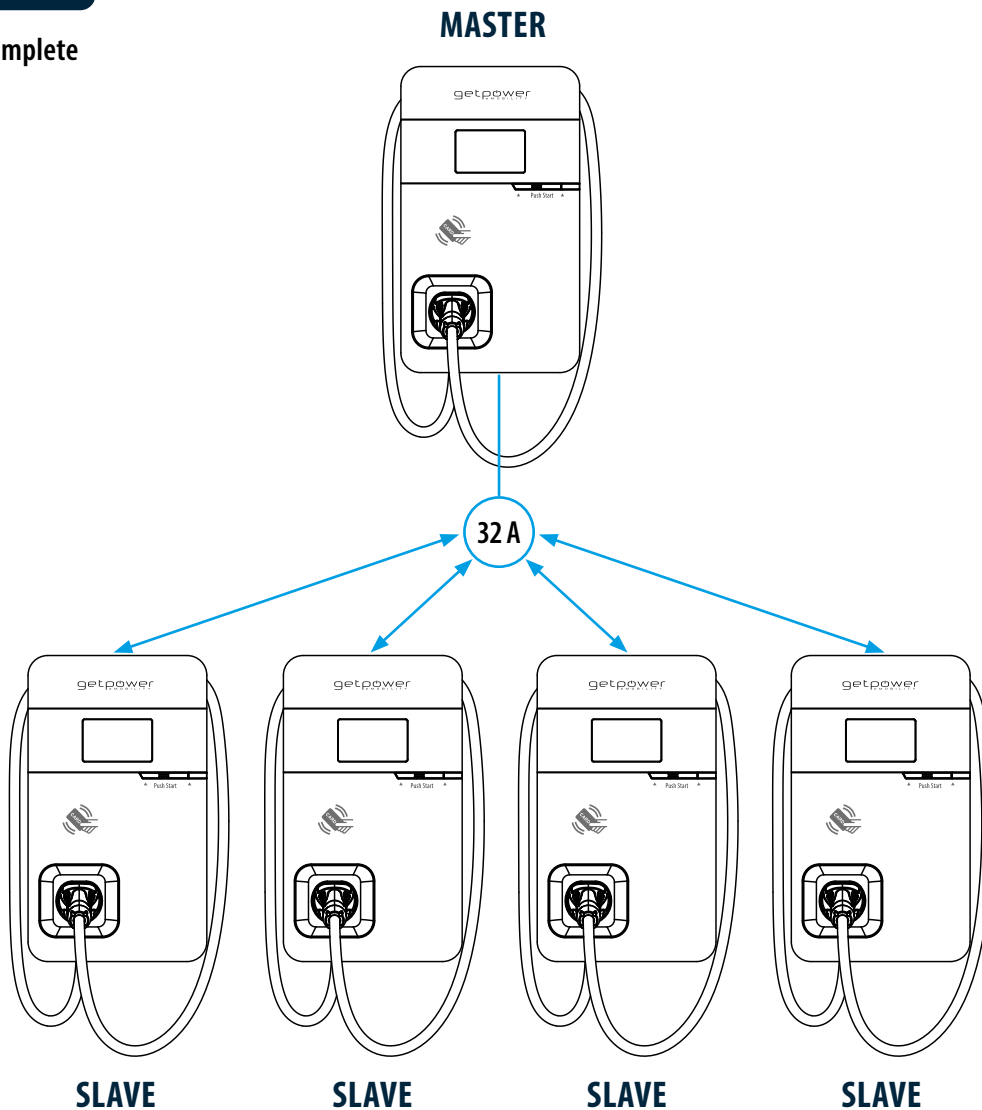


Make sure that the Wi-Fi strength is higher than -65 dBm.

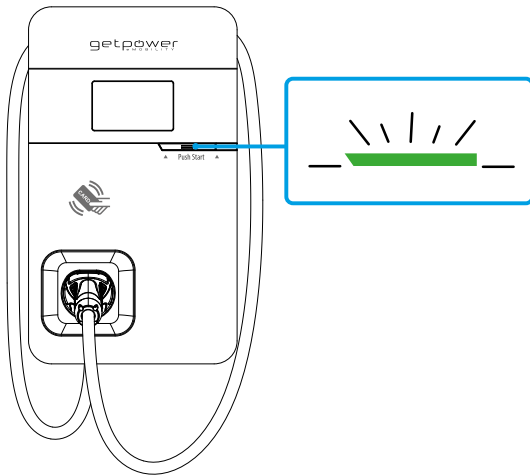
NOTE: If the master and slaves are disconnected and unable to communicate, this will cause the slave charger stop charging.

Step 9

Setup Complete



10. OPERATING INSTRUCTIONS

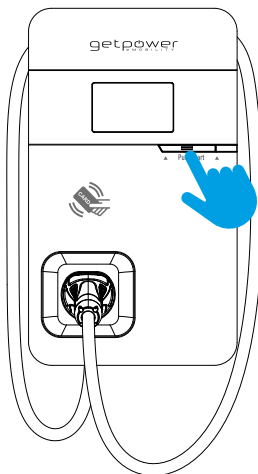


Standby - Green Light

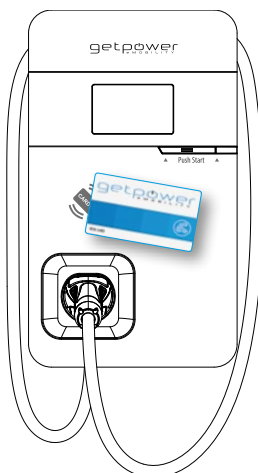
Wait to see the standby light show STEADY GREEN. When the charger is not operated for 120 seconds, it will enter the sleep mode.

When the machine is connected to the backend, the standby light remains GREEN, and it becomes SLEEP GREEN when the machine enters sleep mode.

When the machine is not connected to the backend, the standby light remains YELLOW, and it becomes SLEEP YELLOW when the machine enters sleep mode.

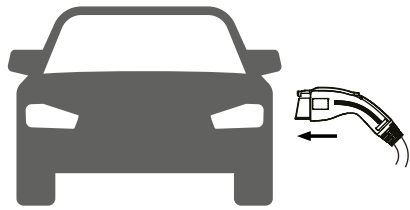


Press the button to wake up the charger.



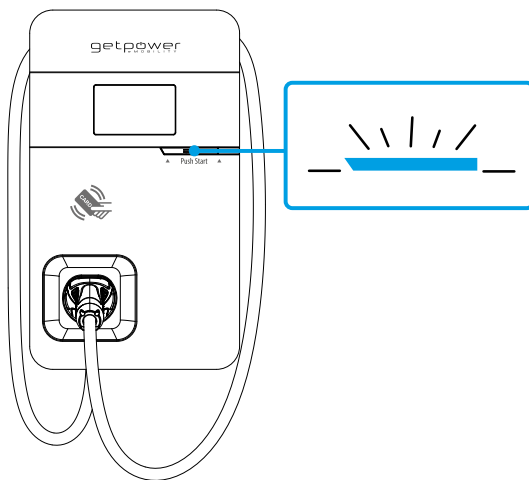
RFID Authorization (Internet Edition)- Green Light Flashing

The Green light is flashing after the RFID is authorized. enters sleep mode.



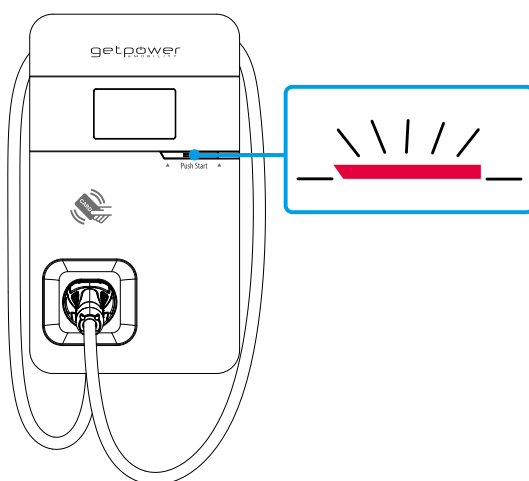
Waiting for Charging - Blue Light

After the vehicle connector is connected to the vehicle inlet, the CHARGE light is constantly lit. enters sleep mode.



Charging - Blue Light Flashing

The CHARGE light flashes while charging.



Fault - Red Light

The red light is lit during fault. Please refer to „9.1 Error and Warning Messages“ for detailed information.

10.1 ERROR AND WARNING MESSAGE

Status	Red	Remark
Input OVP	One flash followed by a 3-sec pause	Please measure the input voltage to see if it is higher than 275 V
Input UVP	Two flashes followed by a 3-sec pause	Please measure the input voltage to see if it is lower than 160V
Output OCP	Three flashes followed by a 3-sec pause	When the charging current on the car shows overloaded, please disconnect the charging gun and then try to initiate charging again. If the situation recurs, please contact the service personnel of the car maker for identification of problems.
OTP	Four flashes followed by a 3-sec pause	If the temperature of the charger is abnormal, please turn off the power of the charger to cool down the machine before powering it on again. If the situation recurs, please power off and stop using the machine immediately, then contact customer service
RCD Abnormal	Five flashes followed by a 3-sec pause	Disengage the charging gun and try the operation again. If the situation recurs, please contact customer service.
Ground Fault ⁽¹⁾	Six flashes followed by a 3-sec pause	Please confirm the grounding status ⁽¹⁾
Control Pilot Fault	Flicker	When the communications between the vehicle and the charger is abnormal, please disengage the charging gun and re-operate again. If the situation recurs, please contact customer service.
MCU Self-Test Fail	Constantly Bright	Contact Customer Service
RCD Self-Test Fail	Constantly Bright	Contact Customer Service
Relay Self-Test Fail	Constantly Bright	Contact Customer Service
RCD Abnormal Stop Charging ⁽²⁾	Constantly Bright	Contact Customer Service ⁽³⁾
Output OCP Stop Charging ⁽²⁾	Constantly Bright	Contact Customer Service ⁽³⁾
OTP Stop Charging	Constantly Bright	Contact Customer Service

⁽¹⁾ Verify that the Wall 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.

⁽²⁾ Withdraw and re-plug the charging gun can exit this stop charging mode.

⁽³⁾ If this stop charging mode is frequently triggered, please contact customer service for technical solutions.

11. MAINTENANCE AND REPAIR

11.1 DAILY MAINTENANCE

Please keep the charger clean and keep the charger in a clean area with low humidity. Do not install it in an environment near the sea, with high oil, high humidity or high dust.

- Avoid moisture or water in the charger. If water or excess moisture gets into the charger, immediately power off the charger to avoid immediate danger. Proceed to contact the appropriate maintenance personnel before the next use.
- If there is any damage or dirt on the vehicle connector, charging cable, or vehicle connector holder, please contact the maintenance personnel immediately.
- Please use the charger correctly. Do not hit or press hard on the case. If the case is damaged, please contact a professional technician.
- Avoid placing the charger near hot objects and at high-temperature locations and away from dangerous substances such as flammable gases and corrosive materials.
- Do not place external objects or heavy objects on the charger to avoid danger.

11.2 MAINTENANCE SPARES

- This product is covered by a two-year parts warranty. If you have a technical issue, contact dealer to speak to a technical support representative.

11.3 MAINTENANCE SPARES

- The warranty period for this charger is two years and covers parts only.
- All replacement parts provided during the warranty period will be covered for the remaining balance of the original warranty period, in addition to a 90-day grace period.
- During the warranty period, if any repair or maintenance is performed, an additional 90-days will be added to the original warranty period.
- During the warranty period, if any malfunction is caused by regular use in accordance with the user manual and service instructions (to be determined by dealer), the shall be repaired free of charge. Except for the following situations, the charger shall be subject to the above warranty terms:
 1. The inability to provide valid proof of purchase
 2. A product that is out of warranty.
 3. Those who damage the product due to not following the product service instruction for use, maintenance and storage.
 4. Damage or malfunction caused by a foreign object entering.
 5. Unauthorized repair, disassembly or modification.
 6. Damage caused by force majeure (such as lightning, excessive voltage, earthquake, fire, flood, etc.).
 7. Malfunction and damage caused by other unavoidable external factors. Malfunction and damage caused by improper use of equipment, such as water or other solutions entering into the equipment.
 8. Malfunction and damage caused by the grid power supply and voltage which is not specified for use with the charger equipment.

11.4 MAINTENANCE HISTORY

PRODUCT

Product Name

Serial No.

Product Model

Manufacture Date: Year / Month / Day

CUSTOMER

Name

Phone

Address

MAINTENANCE CONTENT

1. MAINTENANCE CONTENT

After Service

Signature of Customer

2. MAINTENANCE CONTENT

After Service

Signature of Customer

3. MAINTENANCE CONTENT

After Service

Signature of Customer

4. MAINTENANCE CONTENT

After Service

Signature of Customer

5. MAINTENANCE CONTENT

After Service

Signature of Customer



is a brand of **BERGER Stromversorgungen GmbH & Co. KG**, with which the company specializes in sales and services in the field of charging solutions for electromobility.

Since our founding in 2000, **BERGER Stromversorgungen GmbH & Co. KG** has built up an extensive range of more than 30,000 different power supply types. In cooperation with leading switch-mode power supply manufacturers, such as PHIHONG Technologies, we develop, produce and distribute standard power supplies and customized devices for demanding industrial applications.

As the European representative of **ZEROVA Technologies**, we distribute the innovative and reliable EV chargers in the range of 3.6 to 22 kW (AC) and 30 to 480 kW (DC) for the growing electromobility market. At the same time, we are the contact for product and application consulting as well as repair and installation service of the ZEROVA chargers in German-speaking countries.

In addition to the distribution of standard devices, our offer also includes individual solutions for our customers, which are built up with several chargers and include intelligent load management and simple billing systems for operation in multi-family houses or company fleets. We operate various chargers (AC and DC) from our product portfolio with the getpower SmartChargingSystem in conjunction with a photovoltaic system and a modern energy management system for automatic load distribution and load control in our company building in Achern. The system is also available to our customers for product demonstration and training purposes. Contact us and benefit from our comprehensive range of innovative EV charging systems as well as our expertise and consulting in electromobility.



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