Home Electric Vehicle Charging Station

User's & Installation Manual

Admin password: 888888

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Content

1.Safety Notices 01
2.Introduction 02
3. Product Overview 03
3.1.Parameters 03
3.2. Brief Description 05
3.3. Appearance 05
4. Installation. 07
4.1. ExternalInstallation 07
4.2. Internal Connection 09
5. Operations. 13
5.1. Online Mode. 13
5.2. Plug and Charge Mode 22
5.3. Failure Page. 22
6. Warranty Regulations 23

Please read the operation instruction carefully before operation.to know well about the correct operation method of equipment,please safety keep it after read, convenient for future inquiry.

WARNING

The input and output voltage of this equipment is risk high voltage.this will endanger people's life safety. Please strictly follow all warnings and operating instruction on machine and manual.

1.Safety Notices

(1) Do not place flammable, explosive or combustible materials, chemicals, vapors and other dangerous items near the charging station;
(2) Keep charging head clean and dry, please use clean dry cloth wipe it if has dirt, strictly forbid to use hand touch the charging connector core when with power;
(3) Strictly forbid to use the charging pile when charging connector or charging cable existing defect, occur cracks, wear, broken and charging cable naked, please renewal in time or contact the working staffs if found it. Suggest to install a leakage protector that meets local certification standards at the input end;
(4) Please don't try to disassemble, maintain and rebuild the charging pile, please contact the working staffs if has requirement at maintain and rebuild, incorrect operation maybe caused damage, water leakage, electric leakage and other situation;
(5) After working at the rated current(32A) for a period of time, the sample triggers over temperature protection and runs when the rated current drops to 16A;
(6) Strictly forbid to plug off the connector head during charging, make ensure the human body and vehicle safety during charging;
(7) Press down the emergency stop button when meeting the abnormal situation during use, cut off all input and output power supply;
(8) Please charging carefully if meeting raining and thunder weather;
(9) Please the children don't close and use the charging pile during charging, avoid it cause hurt;
(10)Forbid to drive the vehicle during charging, only can charge when at static situation, please misfire the mix power vehicle first then charging;
(11)The overcurrent protection is automatically configured according to the set current device, and no special settings are required.
(12)Before use, please install a filter (model FS34003-50-33) in front of the input.
(13)Hereby, we declares that this electric vehicle charger is in compliance with the essential requirements and other relevant provisions of RE Directive 2014/53/EU.

2.Introduction to Charging Pile

The company's AC charging pile is a charging device developed to meet the needs of charging new energy vehicles. It is used in conjunction with electric vehicle in-vehicle chargers to provide slow charging services for electric vehicles.This product is easy to install, small in floor space, easy to operate, and stylish. It is suitable for all kinds of open-air and indoor parking lots such as private parking garages, public parking lots, residential parking lots, and enterprise-only parking lots.Since this product is a high-voltage device, please do not disassemble the casing or modify the wiring of the device.

1) Product compositionThe charging pile is mainly composed of a casing, a rear cover, a main control board, a human-machine interaction interface, a display module (optional), a card swipe module (optional), a communication module (optional), a fuse, an emergency stop switch, and a charging interface. , charging connector line, connector line hanging board and other components.

2) Main features of the product

- It has a dynamic and dynamic human-computer interaction function, equipped with a led status indication, and the charging process is clear at a glance.
- Embedded emergency stop mechanical switch to increase equipment handling safety.
- With rs485/rs232 communication monitoring mode, it is convenient to obtain the current charging pile Row data.
- With gprs/Ethernet online communication function (optional), online control and payment functions can be realized by scanning QR code on app/mobile WeChat.
- Complete system protection functions: overvoltage, undervoltage protection, overcurrent protection, short circuit protection, leakage protection, over temperature protection, lightning protection, safe and reliable operation.
- Convenient and intelligent appointment charging.
- Data storage and fault identification.
- Accurate battery metering and identification (optional) for increased user confidence.
- The structure of the whole machine adopts rainproof and dustproof design, and has IP65 protection grade. It is suitable for indoor and outdoor, and the use environment is wide and flexible.
- Easy to install, operate and maintain.
- Security and anti-theft.

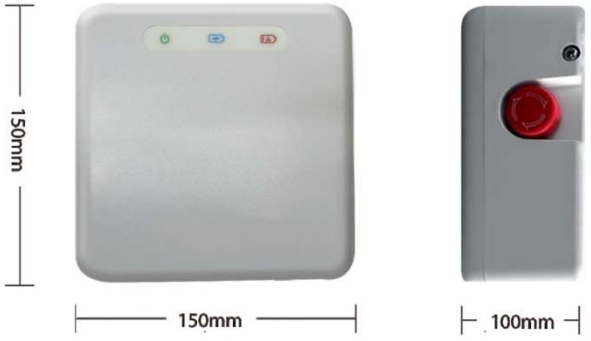
3.Product Overview

3.1 Parameters

Item	Specification	
Name	AC 7kW EV Charger	
Environment	Temperature	-30°C~+55°C
	Humidity	5%~95% no Congeal
	Altitude Height	2000m
	Noise Control	Less than 30db
	Safety Standards	IEC 61851-1
Electrical	Input Voltage	AC220V±15%
	Input Frequency	50Hz/60Hz
	The Max Power	7kw
	Relay Specification	32A 220VA
	Rated Output	Single Plug max Output 32A
Structure	Charging Method	RFID card/plug and charge/APP
	Application	Indoor/Outdoor

Function

Size



3.2 Brief Description

This product is outdoor single gun 7kW AC charging pile, multi-function with OCPP for commercial operation WIFI/4G/APP/blue tooth/RFID, which provide AC power to electric automobile, provide friendly human-computer interaction touch screen, card reader, electric power metering module, network communication module.

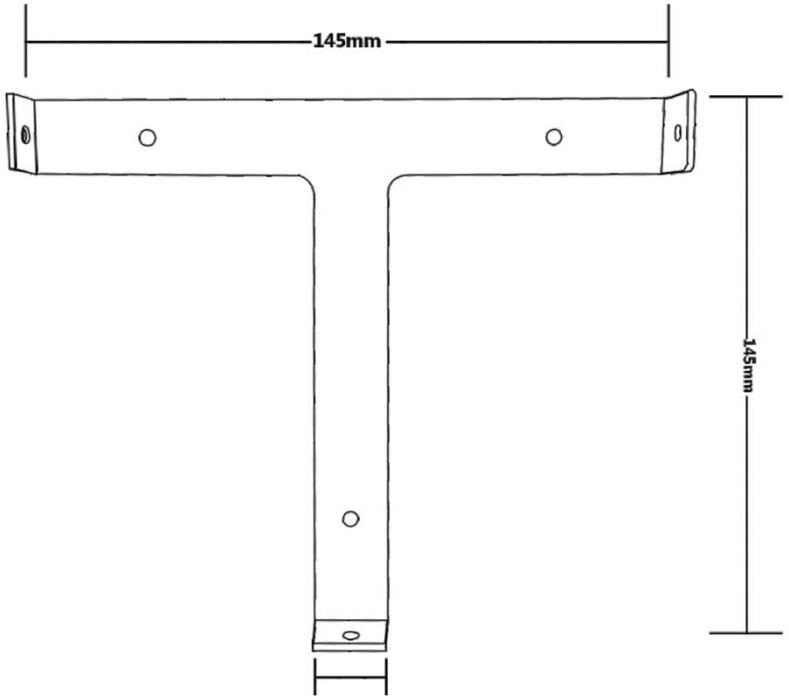
The product applicable to running and use of outdoor public parking field, indoor public parking field, enterprise special parkingfield.

3.3 Appearance

Product Overview

4. Installation

4.1 External Installation:



Installation Method

Accessories:

ÿ Mounting plate: 1piece ÿ

Expansion screws : 4pcs ÿ

Screw M4*8MM: 3pcs

Installation Method:

1)4 holes(Black) by expansion screws to fix mounting piece on the wall;

2)Install 2 pieces M4*8MM screws at the side hole of the charger;

3)Install 1 piece M4*8MM screws at the bottom hole of the charger.

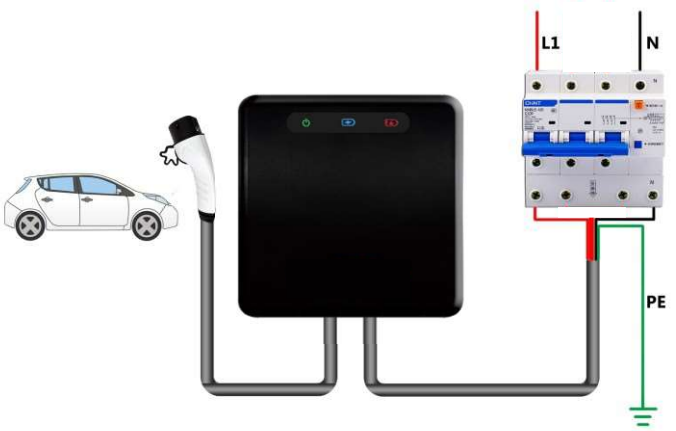
4.2.3 Note

After Wiring is Completed：

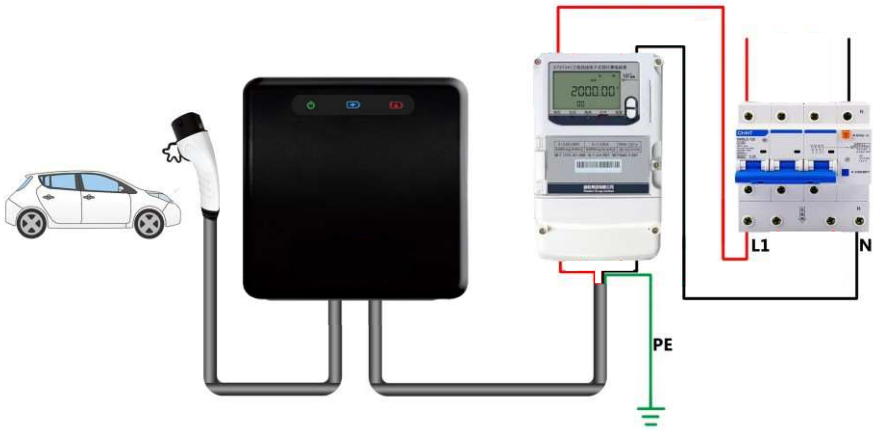
1) Tighten the screws at the wiring point, gently pull them out without loosening;
2) Some wires are reserved inside the junction box of the Charging station to prevent the wires from extra tension;
3) Excess wires can be properly bent and neatly organized;
4) The cables at the input end and output end shall be kept vertical outside the Charging station;
5) Tighten the external fasteners of the input and output terminals clockwise;
6) Check again if there are any abnormalities at each wiring point;
7) Confirm that the rear cover of the Charging station housing is correct.

4.2.4 Connection Mode

1)Normal Connection



2)Connection by External Metering



5.Operations

5.1 Online Mode:

user connect the charging gun, control via mobile APP

Step1:Download the Application

Download the "Smart Life(智能生活)" APP on mobile phone, as shown in the following figure.

Step2:Configure device network

Note: To configure the device network, it is only necessary to configure it once under normal circumstances. After successful configuration, there is no need to perform secondary configuration. You need to reconfigure it when you experience the following scenarios:

a) The WiFi account or password for the device connection has changed;

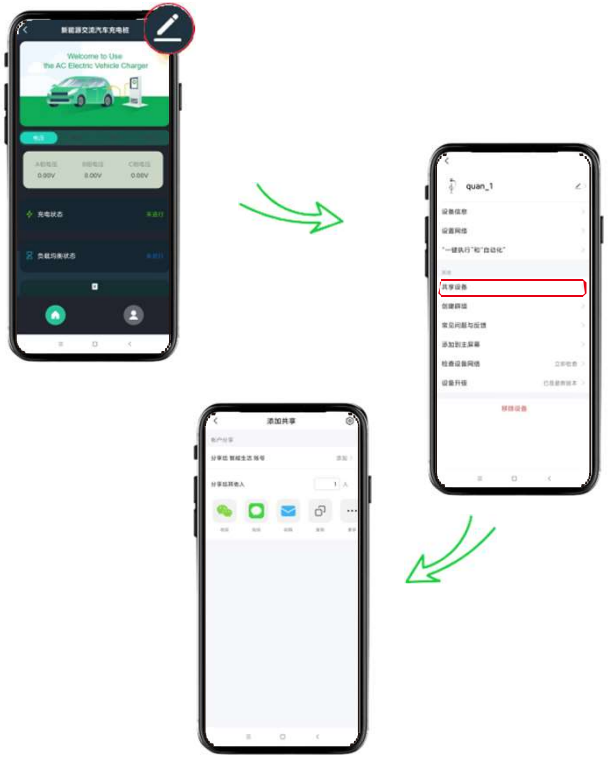
b) If you delete the device in the app, you need to reconfigure it when reconnecting.

1)The charging station will be connected to the network through WiFi, so a 2.4GHz WiFi network is required near your device, and please ensure that your phone has Bluetooth and WiFi enabled.

2)The charging station will be connected to the network through WiFi, so a 2.4GHz WiFi network is required near your device, and please ensure that your phone has Bluetooth and WiFi enabled.

3)Select Other ->Other Devices（ Bluetooth) ->Next ->Search for devices ->Enter WiFi information ->Wait for the download device panel to complete ->Enter the device interface.

4)After the device configuration is successful, you can share the device with individuals or groups. This way, when the shared individuals or groups log in to the app, they can also see the newly added device. The operation is as follows: enter the device panel ->click the edit button in the upper right corner ->share devices .



5) If the device connection times out, it may be caused by the following reasons:

1. WiFi network not connected to the internet
2. The working mode of the router is not in the 2.4GHz frequency band
3. Chinese or other special characters appear in the wifi name
4. The phone is far from the device
5. The device is far from the router

To solve the above problem, repeat the configuration operation and the setup will be successful. If the problem still cannot be solved, please contact the supplier for processing

Step3:App Charging Interface Operation

1)Data Display

The page displays information such as voltage, current, charging information, load balancing, etc.

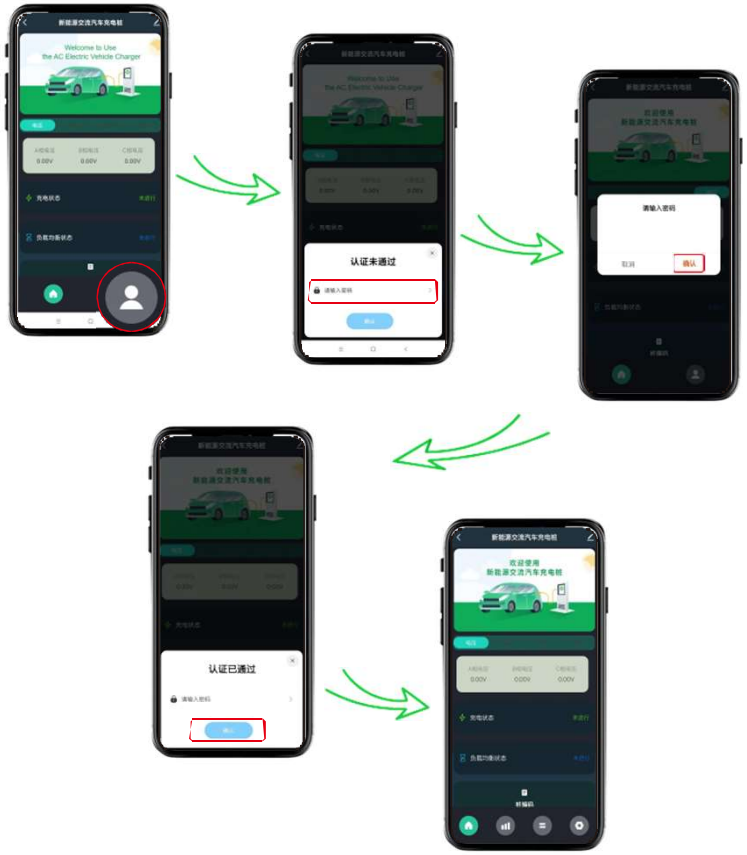
Class	Name	Remarks
Voltage	A-phase voltage	
	B-phase voltage	When the device is a single-phase pile, the value will be 0.0
	C-phase voltage	When the device is a single-phase pile, the value will be 0.0
Current	A-phase current	
	B-phase current	When the device is a single-phase pile, the value will be 0.0
	C-phase current	When the device is a single-phase pile, the value will be 0.0
Charging	Charging capacity	
	Charging amount	
	Card balance	
Other	Rated current of pile	
	Load balancing current	The maximum load current set by the user based on the electricity consumption environment
	Total current	Current in the current electrical environment
	Charging state	
	Load balancing status	Has load balancing been triggered? When the hardware version does not support load balancing, this state will never be triggered
	Cp	When the pile has not collected cp, the value is 0.0
Device Information	Pile code	
	Version number	

4)Device Settings

Note: The device settings are hidden by default. After logging in to the administrator account, you can enter the settings page. Please do not change the content in the settings at will. If necessary, please contact the supplier and consult before proceeding, as incorrect operations may cause the device to malfunction.

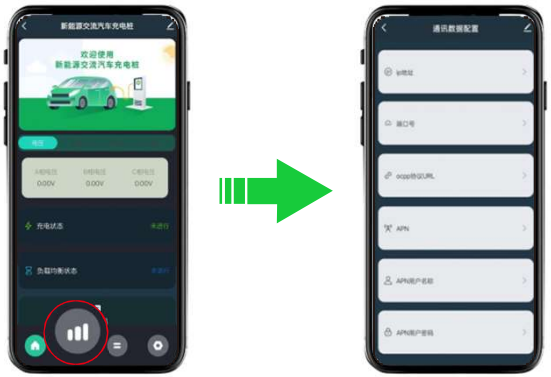
Administrator Mode

Click on the personnel button in the bottom right corner of the homepage ->click on "Please Enter Password" ->click on "Confirm" after entering the password ->After passing the authentication, you will enter the administrator mode. At the bottom of this page, several settings menus will appear, which can be used to enter the settings page



Communication Settings

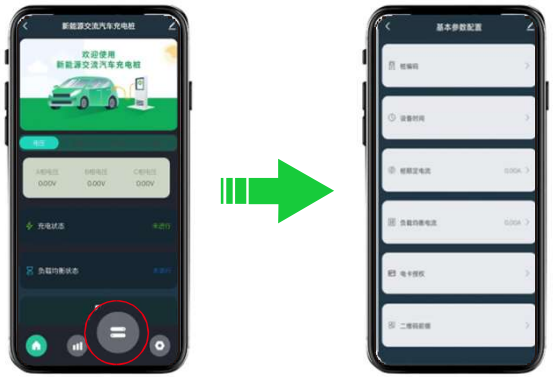
After entering administrator mode, click on the  icon at the bottom to enter the communication settings page.



Function Name	Remarks
IP address	Supported when the charging mode is in the network version, other versions do not need to be configured
Port number	Supported when the charging mode is in the network version, other versions do not need to be configured
OCPP Protocol Url	When the device supports the OCPP protocol, please fill in the URL of the OCPP server you want to connect to here
APN	IoT network cards from non Chinese operators need to be configured with this option
APN User Name	IoT network cards from non Chinese operators need to be configured with this option
APN User Password	IoT network cards from non Chinese operators need to be configured with this option

Parameter Settings

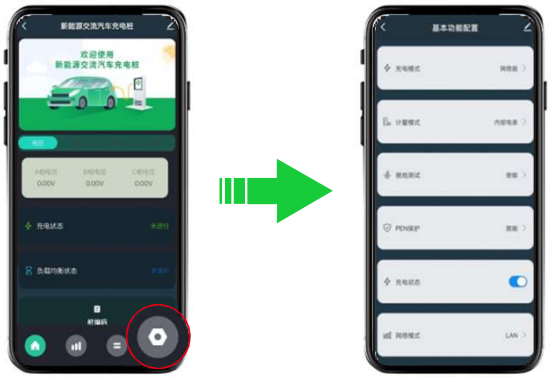
After entering administrator mode, click on the  icon at the bottom to enter the communication settings page.



Function Name	Remarks
Pile code	Generally, no changes are required. If you have special needs, please code yourself
Equipment time	Used for equipment timing
Rated current of pile	Please use with caution to limit the maximum charging power of the pile
Load balancing current	When your device supports load balancing function, control the triggering time of load balancing by setting this current
Card authorization	Users can independently bind card information. After binding, the card can be used for charging start/stop operations. Note: The bound card will be used as a free card and will not be charged
QR code prefix	Only valid in network mode. If the user needs to scan the QR code on their phone and redirect to the relevant platform or page, they can configure the QR code prefix here. The QR code prefix will be generated together with the pile code to generate the QR code

Function Settings

After entering administrator mode, click on the  icon at the bottom to enter the communication settings page.



Function Name	Option	Remarks
Charging mode	Network version	When connecting to the OCPP platform, please confirm if the device supports the OCPP charging protocol
	Single machine normal	Normal mode, card swiping charging
	Single machine reservation	Normal mode, charging appointment can be made
	Plug and Charge	No need to swipe the card. Charging starts when the gun is connected, but stops when disconnected
Measurement mode	Internal electricity meter	Using an internal kilowatt hour meter for metering
	External electricity meter	Using an external electricity meter for metering

Function Name	Option	Remarks
Grounding test	Enable	Turn on grounding protection
	Incarceration	Turn off grounding protection, even if the equipment is not grounded, please use it with caution
PEN protection	Enable	Enable PEN protection
	Incarceration	Turn off PEN protection, please use with caution
Control charging state	Turn on charging	The button lights up to activate charging Used to remotely start charging, provided that the gun and car are already connected, otherwise it will fail Please use with caution in billing mode, otherwise correct billing will not be possible
	Turn off charging	The button turns gray to turn off charging Used to remotely turn off charging, provided that the gun and car are already connected, otherwise it will fail Please use with caution in billing mode, otherwise correct billing will not be possible
Network mode (only valid when charging mode is network mode)	LAN	Connecting to the network through LAN will hide this configuration in other standalone modes
	4G	Connecting to the network using 4G will hide this configuration

Step4:Device Binding

Note: After configuring the network for the device using the Smart Life app, the device will be bound to the account logged in to the Smart Life app by default.

If this device is being bound for the first time and the network is configured according to the normal process, the device binding is completed. If multiple people use the device, there may be a situation where the network cannot be configured for the device. This is because the device has already been configured with the network and is currently in a normal connection state, so the network cannot be configured again. In this case, if you want to use the app to connect to the device, you can use the following methods:

1)With a clear understanding of which user is bound to the device:

- You can contact the bound user to share the device with you
- Contact the bound user to delete the device, and then reconfigure the device network

2)If it is unclear which user has bound the device, it is necessary to forcibly disconnect the device's WiFi network connection before reconfiguring the network:

- Change the WiFi account and password for the device connection, restart the device, and reconfigure the device network after entering the distribution network mode
- Turn off the router connecting the device to the WiFi, restart the device, and after the device enters the distribution network mode, reconfigure the device's network connection to other WiFi devices

5.5.4 Plug and Charge Mode

- Insert the charging gun, start to charge.

5.6 Failure Page

1) The equipment will jump to failure page when occur failure, and remind the failure reason.
2)The equipment occur failure then can't charge, only can jump to normal charging interface till failure recovered.

Modes

The EV charger can only be used in one mode at a time.

Mode 1. Use the security card to start/stop charging; when charging is started with the RIF card, only the RIF card can stop the charge.

Mode 2. Use the EV charger with third party APP's; When charging is started with an APP, only the APP can stop the charge.

Third party APP's and pairing

Compatible with TUYA and Smart Life APP's.

Third party APP's do not store any data on the EV charger, third party apps send a simple start/stop command to the EV charger. Ensure the app is on in the background on your device and ensure background refresh option is on in the phone settings for the app. If you are having problems with third party APP's iON Tech offer limited support via this support page, see the apps help pages for assistance.

How to pair:

If your EV charger has been on for a while reboot the EV charger by powering off from the mains for 30 seconds and power back on again before attempting to pair.

For manual app pairing choose from the devices list: EV Charger BTE+Wi-Fi

1. Standing beside the EV charger ensure your phone is connected to your home Wi-Fi network with a good signal strength (see important notes below)

2. Ensure Bluetooth on your phone is on with no devices connected

3. Open the third-party app and auto detect devices or add the EV charger manually by selecting from the device list EV Charger BTE+Wi-FI.

4. The app will now add the EV charger

Important notes

Bluetooth is only required to pair the EV charger, once paired the app only needs Wi-Fi to be switched on. If you are unable to pair the EV charger it could be the EV charger is out of range of your Wi-Fi router.

Should APP's ask to restart your Wi-Fi router by showing a page asking to find the blinking light on the Wi-Fi router then this indicates the issue could be:

1. The APP cannot find the Wi-Fi signal; the mobile device is not connected to the Wi-Fi.

2. The EV chargers Bluetooth pairing agent broadcasts for 10 minutes and then enters power saving mode, re-boot the EV Charger (power off and on) to reinitialise the Bluetooth pairing agent.

The QR code and serial number cannot be used to pair the EV charger with APP's, to pair the EV charger follow the how to pair instructions above.

Conduct a Wi-Fi signal strength survey

Use an APP like iWi-FI for Apple devices or Wi-Fi Signal Strength Meter for Android devices, use these APP's to scan your signal strength with the phone on the EV charger in order to determine if the EV charger is out of range or has a very low in the red signal, If this is the case the EV charger will be unable to pair with your Wi-Fi, you could try a Wi-Fi signal repeater to extend the range and signal strength of your Wi-Fi.

To ensure a dependable service, the Wi-Fi signal strength at the EV charger needs to be strong or good. A weak signal will make it impossible for the EV charger to connect due to unstable signal strength. Request that an IT technical specialist troubleshoot your Wi-Fi signal at the installation location if you are unable to connect using the assistance offered here.

If you need help extending your Wi-Fi signal, get in touch with a local IT technical support service provider. They can help you connect to Wi-Fi at your place of employment or residence. Apart from our support pages, iON Tech does not offer Wi-Fi connectivity support in homes or businesses.