## **Mercury EV charger Installation Guide**

NOTICE: This manual contains the latest information at the time of printing. The manufacturer reserves the right to make changes to the product without further notice to the purchaser. Changes or modifications to this product by any person or entity other than an authorized service facility will void the product warranty. If you have questions about the use of this product, contact your customer service representative.



If you encounter operational or other problems with the charger, contact your local dealer. If the problem requires return for service, please follow the dealer's instructions for return of the product.



## SAVE THESE INSTRUCTIONS

The purpose of this manual is to provide you with information necessary to safely operate this equipment. Keep this manual for future reference.

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## Content

## What's in the box

Your new Mercury EV Charger contains the following items. If any of these items are missing or if you believe they've been damaged, call support immediately.

- a. Charging station (with the wall-mounting bracket)
- b. Cable clips
- c. Cable glands
- d. Screws
- e. User manual label



Keep the packaging material for possible future transportation or storage.

## Before you get started

Here are the tools you will need to install the EV Charger.

- a. One Phillips screwdriver (PH#2)
- b. One Torx screwdriver(T20)
- c. Phillips screwdriver (PH#0)

ltem	Phillips screwdriver (PH#4)	Torx screwdriver (T20)

## How is the EV Charger powered?

EV Charger can supply a maximum charge of 32A to the EV Requires a dedicated dual pole breaker. We recommend 40A.

CAUTION: To reduce the risk of fire, connect only to a circuit provided with 40 amperes maximum branch circuit over current protection in accordance with the local electrical codes.

## Find a location for the EV Charger

- This device shall be mounted at a sufficient height between 0.5m and 1.5m from the floor.
- The distance from the vehicle allows slack for charging cable.
- Temperatures are between -30 to  $50^{\circ}$ C.
- The charger is within the range of Wi-Fi signal.
- If an outlet for plugged-in is planned, the distance from the outlet allows slack for the power cable.
- This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

## Where is the bracket

When out of box, the mounting bracket is attached to the back of the charger. Here is how to take out the bracket.

- 1. Place the charger on a surface with its face down.
- 2. Unscrew the fixing screw, as show below.
- 3. Slide down the bracket and take it out. Be sure to keep the screw.



## Install the mounting bracket location

1. On the drywall where the charger will be installed, use a bubble level to draw a horizontal line where the top of the EV Charger will sit on and ensure it is mounted at a sufficient height and allows slack for the cables connected to the charger.



- 2. Align the top of the mounting bracket to the line and mark at least 3 mounting holes.
- 3. Drill the mounting holes with the drill bit.
- 4. Use the driver bit to drive screws into the holes to fix the bracket onto the wall.

## Mount the EV Charger

Hang the EV Charger on the mounting bracket by hooting it the hooks.

- 1. Hang the charging station on the protruding hangers on the bracket.
- 2. Screw the bottom fixing screw into station. This will fix the charger onto the bracket.





## Wiring preparation

1. With the EV Charger facing up, remove the front bezel.



2. Unscrew the two fixing screws located on the bottom side of the outer cover. Push it up about an inch and remove it from the inner cover.





3. Unscrew the fixing 4 screws located around the inner cover.



4. Open the inner cover from right to left and beware the cable attached to the inner cover.



Caution: there's a cable connecting the inner cover to the circuit board in the charger. To remove the cable, gently grab the cable bundle and pull it away from the circuit board.

## Power cable hardwiring

- EV Charger accept 1p or 3p power input as its power source
- Requires a dedicated dual pole breaker.
- 1. Use a big coin to unscrew the cable hole plug.



2. Take the provided cable gland and insert the power cable through the gland.



3. For 1P power, screw the power clip onto the cable and secure it as shown below and go to step 5.



- 4. For 3p power cable:
  - A. Past the provided rubber cover sleeve onto the section of the cable sitting on the cable holder.

The rubber pad must completely covered the cable



B. Use the provided clip to secure the cable to the charger as shown



5. Wiring the power cable.



 Carefully remove the electrical insulation off each inner cable using a wire striper to expose 18 ~ 19 mm of internal conductor. We advise using flexible cables with a maximum section of 6 mm<sup>2</sup>.

The power cord input terminal requires a cord end terminal complying with DIN 46228-4 standard.

#### Installer-Supplied Components for Input Wire

• DIN 46228-4 Cord end terminal:



b. By following the wiring shown above, first stick your flat-blade screw driver into the clip release hole as shown below.



c. Insert the wire and pull out the screw driver. The naked wire part shall be completely inserted into the hole and reach the bottom.



d. Repeat the steps until you finish the wiring.

6. Gently reattach the cable to the cover and the circuit board.



7. Close the inner cover and restore all other covers and bezel.

## Set charging current rate

Your charger is set from the factory to charge at 32 Amps. You can raise or lower this rate manually here.



See the table below showing the available options and required (125%) breaker sizes.

Current selection switch setting	Output Current Setting IEC -1P	Output Current Setting IEC -3P
0	32	32
1	24	24
2	20	20
3	16	16
4	12	12
5	8	8
6	Reserved (Test Mode, 32A)	Reserved (Test Mode, 32A)
7	Error	IT system (32A)
8	Factory Reset	Factory Reset
9	Error	3P as 1P (32A)

## **Network wiring**

#### • WI-FI

Your EV Charger is now ready to charge your vehicle. It is now available from the factory to your configuration the numerous other features available from Mercury, return to the Mercury App, choose Add a Device under Manage Devices and follow the instructions to set up your EV Charger. Your phone will connect via Wi-Fi to the system and then you'll connect to a nearby Wi-Fi router. Make sure you have your Wi-Fi name and password.

#### Mobile network

You need to install a dedicated LTE wireless module and a micro SIM card into the sockets located on the circuit board in the inner cover. First, install the LTE wireless module and then the SIM card as shown below.

1. Peel off the acetic acid cloth tape that fixes the antenna cable.



2. Screw off the card fixing screw as show below with Phillips screwdriver (PH#0).



3. Insert the LTE module.



4. Screw the screw back to fix the module in place.



5. Attach the antenna plug into the connector named MAIN.



6. Use the acetic acid cloth tape to fix the extra cable length properly.



7. Insert your SIM card to the port.



#### • Ethernet cable connection

Prepare <u>a round-form Ethernet cable</u> ( $\phi$ 4~ $\phi$ 7mm). Do not use flat-form ones.



1. Use a big coin to unscrew the cable hole plug.

- Take the provided cable gland and insert the cable through the gland.
   <u>The network cable shall be round form one</u> (<u>\$\phi4^\$\phi4\$</u>).
- 3. Plug the cable to the Ethernet port.

## **Charging your vehicle**

To charge your vehicle, open the charge port and plug the EV Charger gun into the port. You will see the charge light on the EV Charger switch to solid blue when it is connected to the vehicle. The LED indicator will begin breathing blue as the vehicle charges. Additionally, most EVs have indicator lights on the dashboard to let you know that you're charging. Do not attempt to drive your vehicle while the charge cable is connected to your vehicle.

## Start using the charger

## For the first time (AP mode)

 The charging station has not yet been configured by default. When the power is turned on for the first time, the indicator displays a white breathing light, which is indicating it is in AP mode. Prepare a mobile phone or computer, open the WI-FI setting page, look for "ECSIPC\_EVSE\_3C9E" and enter the default password "evse1234"

\* **3C9E** should be replaced by the last four digits of the charger's device ID.

2. Access to the charger: scan the QR code sticker affixed to the charger; or open the browser to enter

https://WKT-EC13-3C9E.local

\* It is recommended to use Chrome browser version 101.0.4951.54 or above

3. Enter your account and password to log in.

		ES IPC		
		ECSIPC EVSE Integration System		
8	User Name			
₽	Password			
		Log in		
			Forget password?	

#### \*Permission settings

1. Administrator: Can enter all function pages.

Account: evse Password: evse1234

2. User: Only the "Home" and "device setting" pages are allowed. And, in the device setting page,

only three items (Device Info, Change Password, Reboot) are shown.

Account: evseuser Password: evse1234

#### NOTE:

To prevent operational errors, only one user is allowed to access the charger at a time. If there is any extra attempt to access to the charger, the system will pop up a warning window.

Before the charging station is properly set up with the administrator account, user accounts will



■ If you leave this page during this initial setup process, it means the setup is not yet complete, and you will not be able to use the charging station. The next time you connect back to this page, you will need to start the setup process from the beginning again.

■ While entering information, please ensure there is a stable internet connection and do not leave the setup page. Otherwise, it may result in incomplete configuration of the charging station and cause errors.

■ When a duplicate login is detected, the previous login will be automatically logged out, and the following screen will be displayed.



If the system is idle for 10 minutes, you will need to log in again to continue. The idle time can be configured differently based on your requirements.

<b>FORMATION</b>
You have been idle over 10 mins, you will be signed off automatically
ОК

- If you cannot connect to the charging station after changing the settings, please reset the charging station or connect it to LAN and enter the device IP address,
   e.g. <u>https://10.70.1.127</u>.
- The following window will pop up if clicking "Forgot Password" on the login page.



## **Initial Setup**

When setting up the charging station for the first time, the following screens will appear sequentially after logging in. Throughout the setup process, please ensure that the device remains in the same network environment.

Setup Steps: \*optional

- 1. Change Password
- 2. Select Mode (HOME/CLOUD)

- 3. Network Setup (WIFI/LAN/LTE\*)
- 4. OCPP Setting\*
- 5. External Device Setup\*

#### **Change Password**

After logging in for the first time, please proceed to change your password. Enter the current password, new password, and confirm the new password in sequence. Once the password is successfully changed, you will be automatically logged out. You will need to log in again with the new password to proceed to the next step.

#### Select Mode

After logging in again, you will enter the mode selection screen. Please choose the appropriate mode based on your requirements.



**Home Mode**: After completing the network setup and rebooting, the charging station will be ready for use.

**Cloud Mode**: You need to complete the network setup, OCPP settings, and external device configuration\*. After rebooting, if the OCPP server is connected, the charging station will be ready for use.

#### **Network Setup**

Select the network connection method for the charging station. Once all settings are completed, the charging station will reboot. Before it finishes rebooting, ensure that the correct network settings are selected. After the reboot is complete, if the settings are correct, the system will automatically redirect to the login page.



#### Using WI-FI Connection

<
Getting Start
CONNECTION Set your connection configuration details.
The WiFi
Select SSID to connect your charger
SSID
¢ C
Security
Please select a security \$
Next

When WI-FI connection is selected, the system automatically scans and lists available SSIDs. Select the SSID to be used and enter the password. If you cannot find the SSID you want to use, you can press the  $\bigcirc$  (refresh) button to find it again. After the setting is complete, press next. Then, the system first checks whether the password is correct or not and whether the SSID is connectable. If the connection is successfully established, you can proceed to the next step.

#### **WI-FI options:**

- ✦None: No additional settings are required.
- ◆WPA & WPA2 Personal: Password settings are required.
- ♦ WPA & WPA2 Enterprise: Relevant settings or certifications are required.

<b>Connection failed</b> Please check your WIFI configuration and try again.	
ок	

Connection failure dialog box

#### Using LAN Connection

< 🗜	IPC IPC
Gettin Com Set your connectio	ng Start nection necefiguration details.
LAN	an the following many during to get up interaction in Falseman
IP	m the following procedure to set up internet in Ethernet.
DHCP (Dynamic)	$\checkmark$
Manual	
DNS	
Obtain automatically	$\checkmark$
Manual	
Speed	
10M (lower the LAN speed to 10M)	$\checkmark$
100M	
* Make sure LAN cable is connected to the router	
Check connection	Next

First, use a LAN cable to connect the charging station to the router. After completing the setup, click **Next**, and the system will guide you to the next step. Click **Check connection** to verify if the entered settings can establish a connection. If the test is successful, the system will proceed to the next step or prompt a window to reboot.

#### LAN Options

IP: Select DHCP (Dynamic) to obtain dynamic information automatically, or choose Manual to input settings manually.

IP			
DHCP (Dynamic)			
Manual			$\checkmark$
Manual IP			
IP			
	<i>x</i>		
Subnet Mask			
		τ.	
Default Gateway			

DNS: Choose how to configure the DNS server address. Select **Obtain automatically** to use a public DNS.

DNS			
Obtain automatically			
Manual			$\checkmark$
DNS server address			
Preferred DNS server			
	ά.	9	
Altemate DNS server			
	i i	2	

♦ Speed: Select network speed 10M or 100M.

After completing the network setup, if in **HOME mode**, the system will display a window indicating that the setup is complete and is ready to restart. Before the reboot is completed, ensure to switch to the correct network settings.

#### Using LTE Connection

After entering the LTE setup options, select the type of internal network (WIFI or LAN), and click Next to configure the network. Click Check connection to verify whether the inserted SIM card and entered information can establish a connection. If the test is successful, the system will proceed to the next page for internal network setup. The internal network configuration page follows the same method as described above for WIFI or LAN settings.

AL LTE				
Perform the following procedure to configure the charger to connect to the internet with LTE cards.				
APN				
interet				
PIN code				
Authentication type				
None \$				
Internal network				
The network you connect your charger to.				
WiFi \$				
Check connection Next				

#### Select the type of your internal network connection: Wi-Fi or LAN

Internal network				
The network you connect your charger to.				
Please select internal network type 🗢				
Please select internal network type				
LAN				
WiFi				
Please select internal network type LAN WiFi				

After completing the internal network setup, click Next to enter the OCPP setup page.



• Successfully connected window



System is rebooting

#### **OCPP settings (available for Cloud mode only)**

If Cloud mode is selected, after the network settings are completed, the OCPP setting page will appear. Fill in the information fields according to the certification information provided by SI or just click next to skip this step for now. Press next and the system will start rebooting and go back to the login page after. Before the reboot completes, you need to switch the network settings of your phone (for example, if you have previously set SSID to "ECS", switch to ECS); or if you have selected LAN (with router) before as your connection type, switch to the SSID of the router.

#### Setting fields:

**Charge Point ID**: The name of the charging station in the OCPP Central System (automatically populated with a default value but can be modified). *Required*.

**Device ID**: Automatically populated and cannot be changed.

Protocol Name: Displays OCPP version information (auto-display).

Central System URL: The address of the OCPP Central System.

**Basic Auth ID/Password**: The username and password used for authentication when connecting via HTTPS (SSL/TLS).

**FTP Server Username**: The username and password for connecting to the OCPP FTP Server.

CA Certificate: Upload the required certificate file for the OCPP server. Default is set to "off".

< File				
Getting Start				
OCPP setting Use OCPP Server to configure a OCPP profile.				
Charge Point ID				
ECSIPC_EVSE_B671				
Protocol Name				
OCPP1.6J				
Central System (URL)				
wss://evcs.southeastasia.cloudapp.azure.com:8443/csms/websocket/CentralSystemService/				
Basic Auth				
Basic Auth Password				
FTP Server Username				
FTP Server Password				
CA certificate				
Next				

#### **External Device Setup**

If external devices are connected, this window will be displayed. The example below indicates whether to connect an external electricity meter or not.

<				
Getting Start				
Peripheral devices setting Please select the devices you want enable.				
ာမ်ိဳ Peripheral devices				
Next				

After completing all the above settings, the system will display a window indicating that the setup is complete and ready to restart. Before the reboot is completed, ensure the network settings are switched appropriately. Once the reboot is finished, the system will automatically redirect to the login screen. After logging in, you can begin using the charging station.

## Start charging

#### Home mode

1. Connect the charging cable to the car.

2. Tap the RFID card (this step is not required if the card verification function is disabled), where the card can be the SET card supplied here or a card being added to the system

3. Start charging.

#### Cloud mode

✦ Use the EV charging service provider's app to start charging.

## Charger status and indicator light pattern

Charging / smart charging Blue breathing light In charging



#### Error Red light

An error has occurred. Do not try to use the charger anymore. Please seek assistance from your dealer.



#### Available White light

The charger is available. There is currently no vehicle connected to the charger.



## Preparing Green light (\*Cloud mode only)

1. A card has been tapped (Back to Available state in 20 seconds)

2. A vehicle is connected to the charger



# \$

Finished Blue light (\*Cloud mode only)The charger has finished charging. You can unplug the charging cable to end the service.1. The user taps the card to finish charging.





Waiting for the charger Blue light ( \*Cloud mode only) The charger suspends the charging service.





#### *AP mode* White breathing light The charger is In AP mode due to incomplete setup and currently not available.





Unavailable Yellow light

#### Waiting for your car Blue light

page of the APP. ( \*Cloud mode only)

(\*Cloud mode only)The vehicle has not start charging or has actively terminated the charging.1. After tapping the card, the user waits for a response from the car.2. The vehicle is fully charged

Reserved Green breathing light

# The charger has been reserved and only accepts the card owned by the reservation holder.

( \*Cloud mode only)



#### Indicator light changing sequence:

[Home mode]



#### [Cloud mode]



\* Reservation charging sequence: Once detecting the card used to make reservation being tapped, the charger goes preparing and starts the standard charging service.



## Web App



#### Preview of each status:



\* When the charger is in the middle of a charging service, if you try to set it into setup mode by using function keys or make a charging service reservation, your App will pop up a message window to indicate such incident and then jump to and lock at the HOME page until the end of current charging service.



\* Leaving the system idle for more than 60 minutes will force you to log in again to continue using it.

You have been idle over 60 mins, you will be signed off automatically
ОК

#### \* Power usage

The two values increase with the power usage of each charging service. In the page which can be found in "**device settings> unit of power usage**", you can change the unit of Total and clear the value of Circle.

\*After performing "Factory reset", both values become 0.

Total: Total power usage of the charger.

**Circle**: This is the usage frequency in the specified period. It can be reset to zero by pressing clean in "device settings> unit of power usage".

#### \* Log out

Press Log out to log out the system. It is recommended to log out after each use. If idle for more than 60 minutes, the system will log users out.

#### **Device setting**

The actual functions and contents of the Device settings page varies according to the priority of the login user and the current operation mode. For details, please see "Device setting function list"



Device settings page for Home mode

#### \* Device information

	Show
	♦
🔲 Device information	$\mathbf{A}$
Upload the latest package and upgrade	Ŷ
Device ID	charg
ECSIPC_EVSE_3C9E	$\diamond$
Device Serial Number	
91705LQ8100H32300000	WKI-
Charger Model	$\diamond$
WKT-EC13	♦
Firmware Version	
RC1	♦
Connector Type	
fixed	
Software validation	
Active	

vs the information about this charger

- Device ID: The charger's name
- Device Serial Number: The serial number of this

ger

Charger model: The model name of this charger ( ex:

-EC13)

- Firmware version: The version of the firmware
- connector type: fixed or socket
- Software validation: Active/ Inactive / error

#### \*Change password

First, enter your current password. Next, enter your new password twice. Then, press Change . Once the change is verified, the system automatically logs you out. You can start using your new password to log in.

<	Change Password				
🔒 Change Password					
Reset your log in pa	ssword.				
Current password					
enter current pa	issword				
New password					
enter new pass	word				
Re-enter New Passw	rord				
re enter new pa	issword				
_					
	Change				

#### \*Reboot charger

The system starts rebooting immediately if you press Reboot. Once the reboot is completed, the system welcomes you with the login page.

It	<b>FFF</b>
5	Reboot your charger?
r	Cancel Reboot



\* Self-test

This is for charger's self-test. Detailed options show under each main option. After selecting options, press start to start the test. The actual available options vary depending on the model of your charger.

		< 🙆 Self-test	
<	🖗 Self-test	Self-test Choose test item	
Self-test		HMI self test NFC Reader test	✓
Choose lest li	en -	Power Board self test I2C1 test	$\checkmark$
HMI self	HMI self test	I2C2 test SPI1 test	
Power B	oard self test	SPI2 test UART test	
		CT test	
		RCM test	
		LO test System auto test	
		Start	
	( <sup>4</sup> )		



During the test, the system locks the screen. Once the test is completed, the test results of each item show on the screen. Press "finish" to exist and return to the previous page. O means the tested item is normal, and **X** is abnormal.

#### \* Unit of power usage

Select the usage unit. Currently available options are Wh and KWh (default). A press on Clean can clears the circle usage value in the home page.

<	🗊 Unit of Power Usage		
🚯 Unit of Usage			
Select unit of meter to display power usage.			
$\checkmark$	KWh (kiloWatt-hours)		
	Wh (Watt-hours)		
S Circle Usage Reset the value of circle usage			
Clean			

#### \*Local Power Grid (\* Home mode only)

Set the maximum current of the charger. The default value is 32.

	🖌 Local Power Grid					
4	Local Power Grid FW Max Amperage Setting					
	User-settable Max Current (Amperage)					
	32 🗸					
	24					
	16					
	8					

#### \* Charger profile

Change the settings of the charger by importing a profile file.

<	🖟 Charger Profile
[] ι	Jpdate Charger Profile
ľ	pload profile
+	Select profile

Press + to select an existing file to import (For example: home\_lan.cfg). After selecting, press import and the system start rebooting to apply the new profile.

#### \* Device details

Firmware and motherboard specifications information



#### \*Firmware update

Select a package to import (For example: WKT-EC13\_v1.file), and follow the instructions to complete the process. The system starts rebooting to apply the update.



During the update process, the following two kinds of errors may occur:

1. Recoverable errors: If a recoverable error occurs, the system automatically starts restoring to **the state before the update** and displays related message when users log in.

2. Unrecoverable errors: The charger goes into Error state and cannot be used (As shown below). Please check the update file and try again.

\$ Ūĵ		»J
Charger	Status	
c		
ECSEper	surf95E5	
Content		
© Err		
Firmware u	odate failed	

#### \*Get log

A push on this button allows you to download the LOG file to your connected device.

<	🗯 Get LOG
Get LOG	
	Get LOG

#### \**Card verification* (\*Home mode only)

You can specify here whether card verification is required before starting charging. Disabling this feature allow users directly start charging their vehicles without tapping their cards. If any change here, the system automatically starts rebooting to apply the change.



#### \*Reset to default setting

A press on Reset can reset the system to its default state.

The reset operation Includes clearing the cards added by the user (but not the SET cards), restoring all power usage values to zero, clearing the initialization settings (mode + network + OCPP settings) and restoring the maximum current setting/unit of Usage/whitelist to their factory default. Once the system completes the reboot, users need to set the charger through the AP mode (SSID) connection. (For details, refer to the chapter regarding first time setting)

<	$\mathbb{Q}$ Reset to Default Setting		
Rese Rest	et to Default Setting ore your Charger to its original system state.		
Reset			

#### Security setting

#### \* Remote Access

0

You can connect remotely to your charger to change its settings or perform maintenance. Enable or disable this SSH connection function, where it is disabled in default. While trying to enable it, you need to upload your certification file. Select the certification file and press apply. The system checks whether the certification is applicable and, if so, start rebooting to complete the setting.

<
<ul> <li>Remote Access</li> <li>Remotely access your charger to change its settings or maintenance.</li> <li>SSH connection</li> </ul>
Certificate file: id_rsa.pub
Your Charger will restart to complete the process.
Apply

#### \*Whitelist

Here is to enable or disable the whitelist function, where disabled in default. Once the feature is enabled, only the access from the devices listed is allowed, while any access from not-listed addresses is denied. While It is possible to manually add mac address to the list, you can add them to the list by importing files. After making change to the list, press apply. The system starts rebooting to apply the new list.

#### Note:

1. MAC format: 18-CF-5E-87-6B-7F or 18:CF:5E:87:6B:7F.

2. Import file format: plain text format. Ex:AAA.txt. Each Mac address must be separated from each other by a "," ,";", "|", tab or enter (cr, lf, crlf).

Ex: 18-CF-5E-87-6B-7F,19-CF-5E-87-6B-7F, 20-CF-5E-87-6B-7F,

st
resses while denying all lit whitelist. Please enter at feature.
Add
plete the process.

#### \*Firewall

Here is to enable or disable the firewall feature. A firewall helps prevent hackers or malware from accessing your charger through the Internet or network. After making changes, press apply to reboot the charger to apply the changes.



#### \*Date & Time

Here displays the current system time and allows users to manually modify the system time. Note:

It is recommended to select "Automatic Date & Time" when the internet is accessible; if not, it is better to set the time manually.

1. Date setting (automatically in default)

If select to set automatically, the system starts trying to connect to time-zone servers to get the local time. Or, just enter the date manually

2. Time zone setting

The default time zone is set according to different default requirements. You can change the time zone here.

Any change here can be applied after pressing Apply.

<	💿 Date & Time	
$\langle \circ \rangle$	Date & Time	
	🗸 Automatic Date & Time	
	2023-08-16 🗎 06:27:46 PM 🤇	9
	Time Zone	
	(GMT+08:00) Taipei 🖨	;
_		
	Apply	

## Network



#### \*Charger Link

Displays the current network configuration and provides "Change configuration " to change them.

	① Network		
Charger Link The network you connect	your charger to.		
🗢 WiFi			
NETGEAR94			
Change configuration			
Change configuration or switc	n type will initlate the charger to restart.		

Press the Change configuration button and the setting page appears. The steps for changing settings are the same as setting them up for the first time.



Select a connection method and configure related information here.

Note: Only Cloud mode provides LTE option, and the system automatically detects whether your charger is supported by this feature.

#### WI-FI

The network you connect your charger to.
Select a SSID and enter password to connect your charger.
SSID (
Security Please select a security ¢
Next

Select your desired SSID from the dropdown list. If the expected SSID does not listed, press refresh to rescan again. After completing the settings, press next. The system closes the pop-up and start rebooting.

#### LAN

**IP**: Select **DHCP(Dynamic)** to obtain dynamic information or select Manual to enter the DNS server address manually.

**NDS**: Select how to configure the DNS server address. Select "Obtain automatically" to use public DNS. After completing the settings, click Apply. The system closes the pop up and starts rebooting.

LAN You can get IP settings assigned automatically if your network supports this capability.	
IP	DNS server
DHCP ( Dynamic )	Obtain automatically
Manual 🗸	Manual 🗸
Manual IP	DNS server address
IP	Preferred DNS server
· · · ·	· · · · ·
Subnet Mask	Altemate DNS server
· · ·	· · · · · · · · · · · · · · · · · · ·
Default Gateway	
· · · · ·	Apply

#### LTE

After entering the LTE setting options, select the type of your domestic network (WI-FI or LAN), and click Next to set the details of the domestic network. After completing the settings, press Next. The system closes the pop-up and start rebooting. The way of setting here is the same as that in the initial setup.

Perform the following procedure to configure the charger to connect to the internet with LTE cards.	
APN	
internet	
PIN code	
Authentication type	
None	٥
Internal network	
The network you connect your charger to.	
WiFi	¢
Next	

\* During the setting, ensure the network is always connected and do not leave the setting page; otherwise, errors may be introduced and leads to abnormal operation. If you cannot connect to the charger after changing the settings here, use function keys + set cards to reset the charger; or connect to LAN and enter the device IP (For example: https:// 10.70.1.127) to access the charger.

#### \*OCPP setting

#### Displays information of your OCPP server.

< 🔋 OCPP	
OCPP setting     Use OCPP Server to configure a OCPP profile.	
Charge Point ID ECSEnersurf95E5	
Charger Model OCPP1.6J	
Central System (URL) wss://220.130.143.214:8883/steve/websocket/CentralSystemService/	
Basic Auth	
Basic Auth Password	
FTP Server Username	
FTP Server Password	
CA certificate	
Change configuration	
Edit OCPP settings will initiate the charger to restart.	

#### Fields:

**Charge Point ID:** The name used to represent the charger in the OCPP Central System (In default, a preset name, which can be modified here, automatically applied).

Protocol Name: OCPP version information

Central System URL: OCPP Central System address

**Basic Auth ID/password:** The ID/password for authentication used in HTTPS (SSL/TLS) connections.

**FTP Server Username**: The account and password required for connecting to the OCPP FTP Server. **CA Certificate**: Upload the certification file required by the OCPP server. The feature is disabled in default.

After completing the setting, press Next. The system start rebooting to apply the changes made here.

<	ОСРР
🗟 oc	PP setting
The	e network you connect your charger to.
Charge	Point ID
ECSE	Enersurf95E5
Protoco	l Name
OCPP	1.6J
Central	System (URL)
wss://	/220.130.143.214:8883/steve/websocket/CentralSystemService/
Basic Au	uth
Basic Au	uth Password
FTP Sen	ver Username
FTP Sen	ver Password
CA	certificate
	Next
Edit OC	PP settings will initiate the charger to restart.

#### \* Software OTA update

Here is to perform the charger's software upgrade from the cloud, where the OCPP Server (Central System) is required to support Firmware Management Profile and is used to send the UpdateFirmware.req message (including URI, Retrieve Time, etc.) to chargers to initiate the software update function.

## Card management

#### Only available in Home mode

$\diamond$	IJĵ			
)) Your RFID C: You can only s your package. MY Card List 45D9292	ard Let up to 10 cards for your You couldn't delete the di C	charger card list, incluc efault cards.	ling default cards from	
2380E1A	9			
	Delete			
	Add			

Here displays the current card list, which includes two default cards (SET cards). In HOME mode, the cards can be used at charging and function key operation scenes. In Cloud mode, their only function is to be used with function key to put the charger into Reset mode. Users can add at most 8 more cards to the list and the added cards can only be used for charging. Cards in the list can initiate and terminate charging service.

#### \* Adding card

#### 1.Press Add

2. Following the instructions shown on the screen, tap the cards you want to be added to your charger one by one. Note: If you leave this operation idle for more than 20 seconds, the system automatically cancel the operation and return to the previous page, where the cards added in this operation are invalid.

- 3. After completing the card adding, press finish.
- 4.New card list is applied to the system.

	»ຼີ Add card	
	) Present the cards to your charger sequentially. It will automatically return to the Card list page after 20 seconds of inactivity.	
» Add card	33AE26AA	
	137632AA	
M Present the cards to your charger sequentially.	C37DE7A9	
It will automatically return to the Card list page after 20 seconds of inactivity.	F441622A	
	C346B9A9 038B07AA	
_		
	E3E8C5A9	
	735F2AAA	
	finish	
finish		

$\diamond$	Ūĵ		)n]	
)) Your RFID Card You can only set your package. Yo	l up to 10 cards for your u couldn't delete the d	charger card list, includir efault cards.	ng default cards from	
MY Card List				
45D9292C				
2380E1A9				
33AE26AA				
137632AA				
C37DE7A9				
F441622A				
C346B9A9				
038B07AA				
E3E8C5A9				
735F2AAA				
Delete				
	,	Add		

\*When there is an attempt to add more cards than the limit (which is 8 cards here), the system pops out a warning windows and ends the card-adding procedure directly.



\* If the system has been left idle for more than 20 seconds during the card-adding procedure (The indicator flashes purple light), it automatically ends and nullifies the procedure along with the cards added in this procedure (The indicator returns to the previous status light).



\* During the card adding process, every time a "card that can be added" is tapped, the indicator turns on one-second with blue light and then flash in purple; if a "card that cannot be added"\* is tapped, the indicator turns on one-second with red light and then back to flashing purple.

\* After pressing finish, if the card adding procedure is completed, the indicator flashes three seconds with green light; if failed, the system pops up warning message and the indicator flashes three seconds with red.

\* Cards that cannot be added: It could be due to their unsupported format, being added to the list already, or being unreadable. In such cases, it is recommended to try again.

\* When Add is pressed and the list is full already, the system pops up a dialog box with message regarding the problem.



#### \* Deleting cards

1. Press Delete

2. Select the cards to be deleted with \checkmark

3. Press OK to apply the deletion.

\*SET cards cannot be deleted.

			1				
$\diamond$	D		»]	$\diamond$	ſ		»]
<ul> <li>Your RFID Cal You can only se from your pack</li> <li>MY Card List</li> <li>45D92920</li> <li>2380E1A9</li> <li>33AE26A/</li> <li>137632A4</li> </ul>	rd tt up to 10 cards for your age. You couldn't delete t C D A A	charger card list, includi	ng default cards	<ul> <li>Your RFID Ca</li> <li>You can only s</li> <li>from your pack</li> <li>MY Card List</li> <li>45D9292</li> <li>2380E1A</li> <li>33AE26A</li> <li>137632A</li> <li>E3DA48A</li> </ul>	rd et up to 10 cards for your cage. You couldn't delete t C Q A A	charger card list, includi the default cards.	ng default cards
F441622A			$\checkmark$	E3E8C5A	9		
C346B9A9	9		$\checkmark$		De	lete	
F3DA4BA	A				٨	dd	
E3E8C5A9	)						
	0	ĸ					

## **Function key & Indicator**

Without using the WebApp, users still can set the charger into specific mode and reboot it with the help of the function key and the SET cards.

- A. **Press Function Key for 1 second and release**: This sets the charger into the card management mode and the indicator start flashing purple (\*For Home mode only)
- B. **Press Function Key for 4 seconds and then release**: This sets the charger into Reset mode and the indicator changes and starts flashing yellow.

\* Timeout: During both modes, if the user leaves the system idle for more than 20 seconds, the system automatically exit the mode and restore the indicator back to previous pattern..

\* Pressing the Function Key for 1 second can exit from both modes.

\* During both mode (blinking purple/yellow), for preventing any operation from other users, the system denies any access from APP, while the app attempting to access the charger pops up a warning window and automatically switch to and locks at the HOME page until the modes is completed or times out.

\* During charging operation, the system cannot be set to any of above modes and shows no response to the key operations shown above.

C. Press Function key for 8 seconds and then release: The charger start rebooting directly.

## Card management mode

\* **Adding new cards** (the indicator pattern is the same as the one when adding a card using the APP)



#### Step 1

Press **"Function key**" one second and release. This set the charger into the card management mode.

The LED indicator changes and starts "flashing purple".

#### Step 2



Tap the cards you want to add one at a time. Each time the card is successfully sensed, the LED indicator turns on one second with "light blue"; if failed or cannot be added no more, the indicator turns on one second with "red"; if the card list becomes full, the indicator turns on three seconds with "yellow". When the charger becomes ready for next action, the indicator resumes "flashing purple ".



#### Step 3

Tap a SET card on the charger

If the card is sensed successfully, the LED indicator turns on one second with "light blue"; if failed or cannot be added, the indicator turns on one second with "red".

#### Step 4

When the card adding operation is completed, the system makes the indicator flashing "green" for three seconds to indicate the operations is successful.

If the operation failed, the system makes the indicator turning on three seconds with "red ". Please try again later.

#### \*Deleting all cards



#### Step 1

Press "Function key" for one second and release. This sets the charger into the card management mode.

The LED indicator becomes "flashing purple".

#### Step 2

Tap a SET card on the charger

If the card is sensed successfully, the LED indicator turns on one second with "light blue"; if failed or cannot be added, the indicator turns on one second with "red". When the charger becomes ready for next action, the indicator resumes "flashing purple ".

#### Step 3



Tap the SET card on the charger again

If the card is sensed successfully, the LED indicator turns on one second with "light blue"; if failed or cannot be added, the indicator turns on one second with "red".

#### Step 4

When the card deleting operation is completed, the system makes the indicator flashing "green" for three seconds to indicate the operations is successful.

If the operation failed, the system makes the indicator turning on three seconds with "red ". Please try again later.



## Rebooting the charger



#### Step 1

Press the "Function key" for 4 seconds and release. This sets the charger into Reboot mode.

The indicator becomes "flashing yellow".

#### Step 2



If the card is sensed successfully, the LED indicator turns on for one second with "light blue"; if failed or cannot be added, the indicator turns on for one second with "red".

## $\bigcirc$

After the indicator flashes green for 3 seconds, the system starts

rebooting.

Step 3

If anything went wrong, the indicator turns on red for 3 seconds. You can try again later.

## Directly reboot the charger



By pressing "Function key" down for 8 seconds and release, you can force the charger start rebooting directly.

## Indicator light index

#### \*Card tapping

Indicator	Pattern	Description
	Flashing blue for 1	The card is sensed successfully.
	second	
	Flashing red for 1	When try to start/stop charging:
	second	The card is not a listed one and cannot be used to
		start/stop charging.
		When try to add a card to the list:
		The card has been already a listed one; this card
		is a SET card; or it cannot be added for some
		other reasons.

#### \*Charger status

Indicator	Pattern	Description
	Deep blue	Charging Finished
		Waiting response from the car
		Waiting for the charger becomes ready.
	Deep blue breathing	In charging/ smart charging.
	light	
•	Solid green light	Preparing
	Green breathing light	Being reserved
0	White light	Available
•	Yellow light	Unavailable
	Red light	Error
$\bigcirc lacksquare$	White flashing light	The system is in preparing status (due to
		incomplete setup, system rebooting, software
		updating)
0	White breathing light	AP mode during setup
	Light off	Powering off.

#### \*Setup mode

Indicator	Pattern	Description	
	Purple flashing light	Card management mode	
	Yellow flashing light	Reboot mode	
•	Green flashing light for	Setup/operation is successful	
	3s		
	Red flashing light for 3s	Setup/operation failed	
•	Solid yellow light for 3s	S Card list is full	

### Account Authorization Types

Feature/Mode	Home		Cloud		
Account Type	Administrator	User	Administrator	User	
Home					
Status	3 Тур	es	<b>10 T</b> ]	10 Types	
Usage	v		N	/	
Settings					
Information	v	v	v	V	
Change password	v	v	v	v	
Reboot charger	v	v	v	V	
Advanced setting					
Self-test	v		v		
Local Power Grid	v				
Unit of Power usage	v		v		
Charger profile	v		v		
Firmware update	v				
Get Log	v		v		
Device details	v		v		
Card Verification	v				
Reset to default	v		v		
Peripheral devices*			v		
Security setting					
Remote access	v		v		
Whitelist	v		v		
Firewall	v		v		
Date & Time	v		v		
Network					
Network setting	v		v		
OCPP setting			v		
Cards	V				

#### Error Code List

Error ID	Description	Code
BENDER_ERROR	Personnel protection device abnormal. (1)	1
BENDER_FAULT_1	Personnel protection device self-test failed. (2)	2
BENDER_FAULT_2	Personnel protection device self-test failed. (3)	3
OVERTEMPERATURE_1	Charger overheat. (4)	4
OVERTEMPERATURE_2	Charger overheat. (5)	5
Charging current is over limitation	Charging current is over rotary setting. (6)	6
OVERVOLTAGE	Charger voltage is too high. (7)	7
UNDERVOLTAGE	Charger voltage is too low. (8)	8
CT_RCM_FAULT	Personnel protection device self-test failed. (12)	12
PHASE_SEQUENCE_ERROR	Wrong phase sequence. (15)	15
METER_FAULT	Power meter is abnormal. (18)	18
IMMEDIATE_BENDER_ERROR	Personnel protection device abnormal. (19)	19
IMMEDIATE_BENDER_FAULT_1	Current leaks into the ground. (20)	20
IMMEDIATE_BENDER_FAULT_2	Current leaks into the ground. (21)	21
IDLE_CURRENT	Standby current is too high. (22)	22
HOST_COMMAND_TIMEOUT	Internal communication is abnormal. (34)	34
INVALID_HARD_CURRENT_LIMIT	Charging current setting is invalid. (36)	36
BENDER_SELF_TEST_ERROR	Personnel protection device self-test failed. (39)	39
CT_TEST_FAULT	Current sensor self-test failed. (49)	49
OVERTEMPERATURE_4	Socket overheat. (51)	51
NVM_DATA_FAULT	Memory storage unit error. (53)	53
PEN_FAULT	Current leakage is detected. (55)	55
LOCK_TEST_FAULT	Socket lock is abnormal. (57)	57
CHG_OVERCURRENT	Charging current is over limitation. (58)	58
HMI_FAULT	Internal communication error. (59)	59
VOLTAGE_SAG	Charger voltage is unstable. (62)	62
Firmware update failed	Firmware update failed. (63)	63
Communication to EV is abnormal	Communication to EV is abnormal. (64)	64
PB init fail	Initial setup of Power Board failed. (200)	200
PB UART open fail	Power Board UART port failed to open. (209)	209
PB UART port send fail	Failed to send Power Board command. (212)	212
Communication failure with vehicle	Communication failure with the vehicle. (299)	299

Error ID	Description	Code
NetworkError	Network is abnormal. (102)	102
NotFound	Server URL is incorrect. (103)	103
UnAuth	Basic authentication information is incorrect. (104)	104
Pending	Charger permission is not approved. (108)	108
Rejected	Charger permission is not approved. (109)	109

## **Factory Reset by Rotary Switch**

- 1. Turn off EVSE.
- 2. Turn rotary switch to 8. (Depending on SKU)
- 3. Turn on EVSE, HMI LED indicator will be white and flashing. This means *"Factory reset is in progress, please wait."*
- 4. After Factory reset complete, LED indicator will turn Purple.

5. If Factory reset fails, LED will turn Red. This means "Factory reset failed. Please reboot and try again."

6. Turn off EVSE.

7. Turn rotary switch to 0. (Or refer to the setting table below for preferred charging current.)

8. Turn on EVSE, HMI LED will turn white and flashing.

s/w	R06.07.xx			
SKu	IEC-32A-1P	IEC-32A-3P	UKCA-32A-1P	UKCA-32A-3P
0	32	32	32	32
1	24	24	24	24
2	20	20	20	20
3	16	16	16	16
4	12	12	12	12
5	8	8	8	8
6	Reserved (Test Mode, 32A)	Reserved (Test Mode, 32A)	Reserved (Test Mode, 32A)	Reserved (Test Mode, 32A)
7	Error	IT system (32A)	Error	Error
8	Factory Reset	Factory Reset	Factory Reset	Factory Reset
9	Error	3P as 1P (32A)	Error	3P as 1P (32A)

#### Rotary setting table for each SKU: