VESTEL

ELECTRIC VEHICLE CHARGER

EVC04 Series

User Manual

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1- SAFETY INFORMATION

CAUTION

RISK OF ELECTRIC SHOCK

CAUTION: ELECTRIC VEHICLE CHARGER DEVICE MUST BE INSTALLED AND COMMISSIONED BY A LICENSED OR AN EXPERIENCED ELECTRICIAN AS PER ANY REGIONAL OR NATIONAL ELECTRIC REGULATIONS AND STANDARDS IN EFFECT.

CAUTION

AC grid connection and load planning of the electric vehicle charging device shall be reviewed and approved by authorities as specified by the regional or national electric regulations and standards in effect.

For multiple electric vehicle charger installations the load plan shall be established accordingly. The manufacturer shall not be held liable directly or indirectly for any reason whatsoever in the event of damages and risks that are borne of errors due to AC grid supply connection or load planning.

IMPORTANT - Please read these instructions completely before installing or commissioning the device

1.1 - SAFETY WARNINGS

- These safety and operating instructions should be kept in a safe place for future reference.
- Check the voltage reported on the label; do not use the charging station without the appropriate supply voltage.
- If there is any doubt about normal operation or if the unit is damaged in any way, DO NOT continue using the unit; switch off the main power switches (MCB and RCCB). Contact your installer.
- The room temperature range should be approximately between -35°C and +55°C without direct sunlight and at a relative humidity between 5% and 95%. Use the charging station only within operating conditions.
- The position of the device must be chosen in such a way that excessive heating of the charging station is avoided. High operating temperatures, caused by direct sunlight or heating sources, may cause the charging current to be reduced or the charging process to be temporarily interrupted.
- The charging station is intended both for outdoor and indoor use. The device can also be used in public places.
- To reduce the risk of fire, electric shock or material damage, do not expose the unit to rain, snow, electrical storms or other severe weather events. Moreover, the charging station must not be exposed to splashes or spray of liquids.
- Do not touch the terminals, the electric vehicle connector and other hazardous live parts of the charging station with sharp metal objects.
- Avoid exposure to heat sources, and place the unit away from flammable, explosive, hard or combustible materials, chemicals or vapours.
- Risk of explosion. The equipment has internal flammable or spark-sensitive components that should not be exposed to flammable vapours. The unit should not be located in recessed spaces or below floor level.
- The device is designed solely for charging vehicles that do not require ventilation during charging.
- To avoid the risk of explosion and electric shock, make sure that the specified circuit breaker and earth leakage circuit breaker are connected to the network of the building.
- The lowest part of the socket should be between 0.5 m and 1.5 m above the ground.

- The use of adapters is not allowed. The use of extension cables is not allowed.

WARNING: Never let people (including children) with reduced physical, sensory or mental capabilities or lack of experience and or knowledge use electrical devices unsupervised.

CAUTION: This vehicle charger unit is intended only for charging electric vehicles not requiring ventilation during charging.

1.2- GROUNDING WARNINGS

- The charger must be connected to a grounded system. The earth conductor entering the charger must be connected to the instrument ground lug which is located inside the charger. This operation must be done with the circuit conductors and by connecting the equipment grounding bar or cable to the charging station. Connections to the charger are the sole responsibility of the installer and the purchaser.
- In order to reduce the risk of electric shock, connect only to earthed sockets.
- **WARNING:** Ensure that during installation and use the charging station is permanently and correctly grounded.

1.3- WARNINGS ABOUT POWER CABLES, SOCKETS and CHARGING CABLES

- Check that the charging cable is a compatible Type 2 socket at the charging station.
- A damaged power cable can cause a fire or lead to electric shocks. Do not use the product if the flexible power cable or vehicle cable is frayed, if its insulation is damaged or if the unit shows other signs of damage.
- Therefore, please ensure that the charging cable is well positioned; do not step on it, do not trip over it or do not subject it to damage or stress.
- Do not forcibly pull on the cable and do not damage it with sharp objects.
- Never touch the vehicle plug/socket or cable with wet hands: this could cause a short circuit or an electric shock.
- In order to avoid the risk of fire or electric shock, do not use the device with extension cords. To avoid danger, if the mains cable or vehicle cable is damaged, it must be replaced by the manufacturer, its service agent or by similarly qualified persons.

1.4 - WARNING FOR WALL INSTALLATION

- Please carefully read the instructions before mounting the wall charging station.
- Do not install the charging station on the ceiling or on sloping walls.
- Use the indicated wall mounting screws and other accessories.
- The unit is certified to be used both indoors and outdoors. If the unit is mounted outdoors, the equipment for connecting the cables to the unit must be certified for outdoor use and must also be installed in such a way that the IP certification on the unit is maintained.

1.5 - PURPOSE AND INTENDED USE

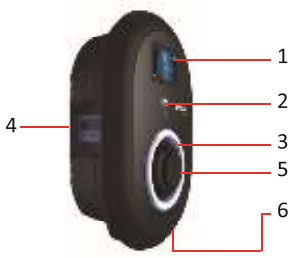
Vestel EVC04-E*-*-** is intended to be used exclusively for charging electric vehicles and, when installed correctly, may be used by untrained individuals.

2 - GENERAL INFORMATION

2.1 - INTRODUCTION TO PRODUCT COMPONENTS

Model with socket Models

with tethered cable



ENen **Socket Models**

1- Information Display (Optional)
2- RFID Card Reader
3- Status indicator LED
4- MID Meter Display (Optional)
5- Socket Outlet
6- Product Label
7- Charging Cable (Optional) or Out of Use
8- Charging station communication cable gland nut
9- Charging station Supply connection cable gland nut

ENen **Tethered Cable Models**

1- Information Display (Optional)
2- RFID Card Reader
3- Status indicator LED
4- MID Meter Display (Optional)
5- Dummy Socket
6- Charging Plug
7- Product Label
8- Charging cable 9- Charging station communication cable gland nut 10- Charging station Supply connection cable gland nut

2.2 - CHARGING CABLE PLUG

2.2.1 - SOCKET MODEL

Open the front cover of the power socket and connect the charging cable to the power socket.

2.2.2 - TETHERED CABLE MODEL

Press the button on top of the charging plug holder to release the charging plug from the charger, then disconnect the charging plug. Then connect the charging plug to the vehicle to start charging.

2.3 - LED INDICATOR STATUS

Status of the LED		Status of the Charging Station
	Blinks Blue and Green	Charging station is starting up / booting.
	No LED Indication	Charging device is ready to charge.
4 sec	Blinks blue	Electric Vehicle is connected. Charging Station is waiting for RFID card authorisation.
	Green Glowing	Charging is authenticated.
	Blue Glowing	Charging in progress
	Constant Blue	Charging suspended or finished. Depending on HMI Configuration.
	Constant Red	Fault condition
4 sec	Blinks purple	Charging with current limited to 16A due to over temperature
	Constant Purple	Charging not possible due to over temperature or power optimizer current limit is reached or the charger is disabled
1 sec	Blinks red and blue	Charging station is reserved. Charging station is waiting for Eco Time interval. Charging station is in Delay Charge Mode.
	Constant Red	Firmware update

1 sec	Blinks red Per second for 60 seconds	Master Card Config mode / Local Card List Reset
Twice	Blinks green for 2 times	User RFID Card addition to local RFID list
Twice	Blinks red for 2 times	User RFID card removes from local RFID list

Status of the LED		Status of the Charging Station
	Green Glowing	Authorised RFID Card is tapped while charging cable is connected
	Glows green for 30 secs	Authorised RFID Card is tapped while charging cable is not connected
	Blinks red for 3 times	Start/stop charging attemption with unauthorised RFID card
	Blinks Green for 1 secs	Charging Station is waiting for Randomised Delay Period.
	Constant Yellow	Altered Firmware
	Blinking Yellow	Tamper switch is activated

3 - DESCRIPTION

3.1 - MODEL DESCRIPTION

Model Name	**MODEL DESCRIPTION: EVC04-E*-*-**** EVC04 : Electric Vehicle AC Charger (Mechanical Cabinet 04) E: E.ON **1st Asterisk (*) : Rated Power** 7 : 7.4 kW (1Phase Supply Equipment) 11 : 11 kW (3Phase Supply Equipment) 22 : 22 kW (3Phase Supply Equipment) **2nd Asterisk (*) can include combinations of the following options.** **RFID reader is standard equipment for all of the model variants** HS : High Secure Smart Board with Ethernet Port W : Wi-Fi module or Wi-Fi & Bluetooth module L : LTE / 3G / 2G module P : ISO 15118 PLC HLC module CT : Current transformer measurement module D : 4.3” TFT color display PEN : Broken PEN detection and protection M : Charging unit with MID meter. **3rd Asterisk (*) can be one of the following:** S : Socket outlet C : Attached cable with Type-2 vehicle connector **4th Asterisk (*) can include combinations of the following:** Blank : B2B variant without RFID cards inside package R : B2B variant with RFID cards inside package**
Cabinet	EVC04

3.2 - MODEL DESCRIPTION

	LTEcapable	SIMCardIntegrated	WiFi	Display	Ethernet	MIDMeterIntegrated	ISO15118prepared(PLC HLC)	Type2ACSocket	AttachedCable	RCCBTypeA	DC6mASensor	RFIDCardsAttached	BrokenPENDetection	*PowerOptimizerwith ExternalCT	SmartCharging
EVC04-E7-HSWCTPEN-C			x		x				5m		x	x	x	x	x
EVC04-E7-HSWCTPEN-S			x		x			x			x	x	x	x	x
EVC04-E22-HSWLDM-S	x	x	x	x	x	x	x	x			x				x
EVC04-E22-HSWLDM-C	x	x	x	x	x	x	x		7m		x				x

* Depends on customer request, CT Clamp can be ordered separately and can be connected to embedded Power Optimizer board.

4 - TECHNICAL SPECIFICATION

This product is compliant to IEC61851-1 (Ed3.0) standard for Mode 3 use.

Model		EVC04-E22 Series	EVC04-E11 Series	EVC04-E7 Series
IEC Protection class		Class - I		
Vehicle Interface	**Socket Model**	Socket TYPE 2 (IEC 62196)		
	Cable Model	Cable with TYPE 2 (IEC 62196) Female Plug		
Voltage and Current Rates		400VAC 50/60 Hz - 3-phase 32A	400VAC 50/60 Hz- 3-phase 16A	230VAC 50/60 Hz - 1-phase 32A
Broken PEN Detection Voltage Range		NA	NA	<207V , >253V Single phase TN-S and TN-C-S supplies only
AC Maximum Charge Output		22kW	11kW	7.4kW
Built-in Residual Current Sensing module		6mA		
Required Circuit Breaker on AC Mains		4P-40A MCB Type-C	4P-20A MCB Type-C	2P-40A MCB Type-C
Required Leakage Current Relay on AC Mains (for products which are not equipped with RCCB Type A)		4P -40A - 30mA RCCB Type-A	4P -20A - 30mA RCCB Type-A	2P -40A - 30mA RCCB Type-A
Required AC Mains Cable (recommended minimum cable size in accordance with BS7671)		5x 6 mm² (< 50 m) External Dimensions: Ø 18–25 mm	5x4 mm² (< 50 m) External Dimensions: Ø 18–25 mm	3x 6 mm² (< 50 m) External Dimensions: Ø 13-25 mm

CONNECTIVITY

Ethernet	10/100 Mbps Ethernet (Standard with Smart Options)
Wi-Fi (Optional)	Wi-Fi 802.11 a/b/g/n/ac
Cellular (Optional)	LTE: B1 (2100 MHz), B3 (1800 MHz), B7 (2600 MHz), B8 (900 MHz), B20 (800 MHz), B28A (700 MHz) WCDMA: B1 (2100 MHz), B8 (900 MHz) GSM: B3 (1800 MHz), B8 (900 MHz)

OTHER FEATURES (Connected Models)

Diagnostics	Diagnostics over OCPP WebconfigUI
Software Update	Remote software update over OCPP WebconfigUI update Remote software update with server

AUTHORIZATION

RFID	ISO-14443A/B and ISO-15693

MECHANICAL SPECIFICATIONS

Material	Plastic
Product size	315 mm (Width) x 460 mm (Height) x 135 mm (Depth)
Dimensions (with package)	405 mm (Width) x 530 mm (Height) x 325 mm (Depth)
Product weight	5 kg for socket equipped model, 6,8kg for tethered cable model (3 Phases) 5,5kg for tethered cable model (1 Phase)
Weight with package	7,1 kg for socket equipped model, 8,9kg for tethered cable model (3 Phases) 7,6kg for tethered cable model (1 Phase)
AC Mains Cable Dimensions	For three-phase models Ø 18-25 mm For one-phase models Ø 13-25 mm
Cable Inlets	AC Mains / Ethernet / Modbus

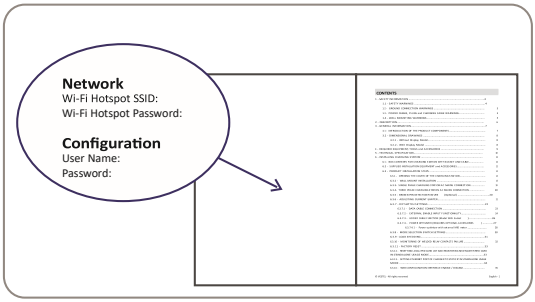
ENVIRONMENTAL TECHNICAL SPECIFICATIONS

Protection Class	Ingress Protection Impact Protection	IP54 IK10 (Optional display have IK08 protection)
Usage Conditions	Temperature Humidity Altitude	-35 °C to 55 °C (without direct sunlight) 5% - 95% (relative humidity, noncondensing) 0 - 4,000m

5- OPENING WEB CONFIGURATION INTERFACE VIA WI-FI HOTSPOT

For this unit, when entering the WiFi Hotspot settings in the WEB user interface, under the Network Settings tab in the WEB user interface, the WiFi Hotspot is on by default, and the timeout time is default enabled set to 15 minutes. Optionally the timeout time can be activated for 5-30 minutes. Also, under the Network Settings tab in the WEB user interface, WiFi Hotspot can be disabled.

WiFi hotspot is set always enabled this product. During this time it is possible to connect a device (mobile phone, tablet or laptop) to the charging station. These username and password are printed inside the front cover of the installation guideline as shown below. The Wi-Fi Hotspot SSID and password are unique and can be set by the customer. New password must contain at least 2 lowercase letter, 2 uppercase letter, 2 numeric character, 2 special characters !%&/()=?*#+-_ and minimum 8 characters.



After connecting to the “Wi-Fi Hotspot” network, the user can open the WEB browser from the computer or mobile device and type 192.168.35.1, the IP address of the charging station. For Android mobile devices, it is necessary to configure the browser to download and show the desktop site from the menu in the upper right corner in the Chrome browser.

For iOS mobile devices, it is necessary to configure the browser to download and show the desktop site from the menu in the top right corner and also set the text size to 50% in the AA setting in the top left corner of the Safari browser.

Note: Maximum 3 users can connect to WEB Configuration Interface via Wi-Fi hotspot. It supports 2.4Ghz.

5 - CHARGING

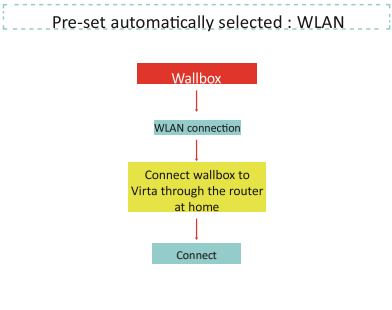
5.1 - PRODUCT VARIANTS

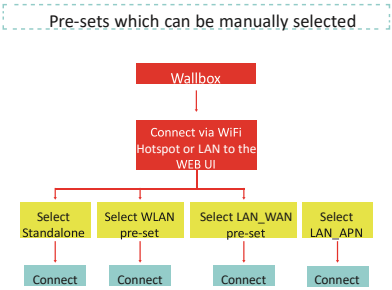
There are two main product variants which differ in their Pre-Sets.

5.1.1 - Default Setting “WLAN”

	LTEcapable	SIMCardIntegrated	WiFi	Display	Ethernet	MIDMeterIntegrated	ISO15118prepared(PLC HLC)	Type2ACSocket	AttachedCable	RCCBTypeA	DC6mASensor	RFIDCardsAttached	BrokenPENDetection	CurrentTransformer	SmartCharging
EVC04-E7-HSWCTPEN-C			x		x				5m		x	x	x	x	x
EVC04-E7-HSWCTPEN-S			x		x			x			x	x	x	x	x

Default factory preset is “WLAN”. Preset availability and selections are shown in figure below for WLAN product family.



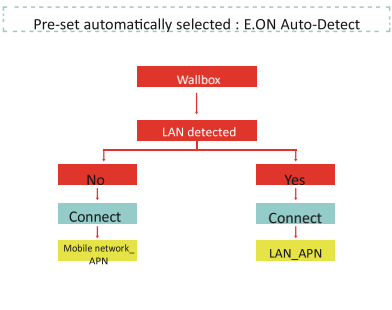


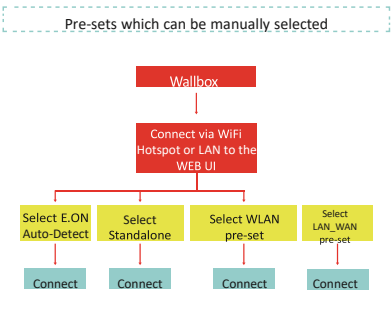
5.1.2 - Default Setting "E.ON Auto-Detect"

The product models and general features are as shown in table below:

	LTEcapable	SIMCardIntegrated	WiFi	Display	Ethernet	MIDMeterntegrated	ISO15118prepared(PLC HLC)	Type2ACSocket	AttachedCable	RCCBTypeA	DC6mASensor	RFIDCardsAttached	BrokenPENDetection	CurrentTransformer	SmartCharging
EVC04-E22-HSWLDM-S	x	x	x	x	x	x		x			x				x
EVC04-E22-HSWLDM-C	x	x	x	x	x	x			7m		x				x

Default factory preset is "E.ON Auto-Detect". Preset availability and selections are shown in figure below for E.ON Auto-Detect product family.





5.2 - PRESET SELECTION

Products have preset configurations which makes it easier to install and change configurations of the products in the field. Preset selection can be done from the drop down menu on main page of WEB configuration interface, as shown in figure below.

WLAN Presets Menu

E.ON Auto-Detect Presets Menu

5.3 - PRESETS

All products are configured as OCPP connected mode once the chargers are installed. In the following chapter the different connection configuration possibilities will be explained:

a. E.ON Auto-Detect: The “E.ON Auto-Detect preset” automatically selects LAN or cellular for a communication with a backend. The LAN interface has higher priority in case if the LAN port is used physically with an active IP address. If the LAN interface is not connected or it does not have an IP address, then the charging station tries to connect via cellular interface using VPN link.

b.Standalone: In the preset “Standalone” , the charging station is configured as “autostart (plug&charge)”. The OCPP-connection is deactivated. In the preset “Standalone” it is possible to use RFID-cards (please see section “RFID Authorization Mode” in user manual). Please note: Once the RFID cards are registered, “autostart (plug&charge)” is deactivated and a charging session could only be started by using the RFID cards. It is possible to switch back to “autostart (plug&charge)”mode by deleting all user RFID cards from local list or reseting local RFID card list mentioned in section “RESETTING LOCAL RFID CARD LIST AND REGISTERING NEW MASTER RFID CARD IN STANDALONE USAGE MODE” in this manual.

c.WLAN: This preset is available for all Vestel products (Standalone and E.ON Auto-Detect) as mentioned in product variant tables. The preset "WLAN" opens the possibility to connect the charger with a local Wi-Fi network (OCPP central system via open internet link). WLAN configurations such as SSID and password should be done by the technician during installation from web configuration interface (which is shown in section "CHANGE NETWORK INTERFACES SETTINGS OF THE DEVICE"). To enable autostart (plug&charge) mode and deactivate RFID authorisation change the FreeModeActive OCPP configuration key to ''True" either from OCPP central system or from web configuration interface in "OCPP Settings" menu.

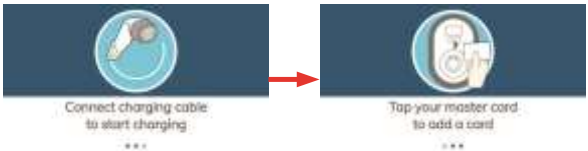
d.LAN-WAN: This preset is available for all Vestel products (Standalone and E.ON Auto-Detect). In LAN-WAN preset, the charging station is configured to use LAN interface to connect to the OCPP central system via open internet link. The charging station is preconfigured as "autostart (plug&charge)"by default. To enable "autostart (plug&charge)" mode (VestelFreeMode) and deactivate RFID authorisation, it is needed to change FreeModeActive OCPP configuration key to "True" either from OCPP central system or from web configuration interface in "OCPP Settings" menu.

e.LAN-APN: In LAN- APN preset, the charging station is configured to use LAN interface to connect to the OCPP central system via VPN link. The charging station is preconfigured as autostart (plug&charge) by default. To enable "autostart (plug&charge)" mode (VestelFreeMode) and deactivate RFID authorisation, it is needed to change FreeModeActive OCPP configuration key to "True" either from OCPP central system or from web configuration interface in "OCPP Settings" menu.

NOTE : After the selection of related preset the configuration should be saved.

5.4 - STANDALONE USAGE MODES

The preset "Standalone" variants are pre-configured for standalone usage. In the standalone usage, charging station has two modes as autostart (plug&charge) and RFID authorised. When your charger is powered on first time, it turns on with "onboarding" screens as shown in figure below (only available for display equipped models). If you connect your charging cable to start charging, charging station starts operating in "autostart (plug&charge)" mode. If you tap your master RFID card and then your user RFID card, your charging station starts operating in RFID authorised mode.



5.4.1 - AUTOSTART (PLUG&CHARGE) MODE

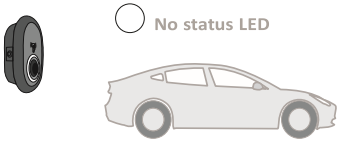
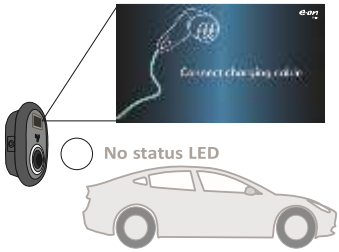
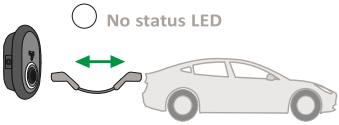
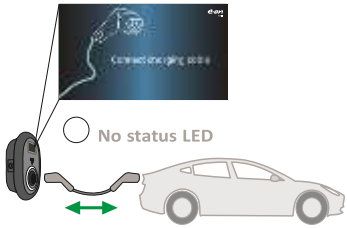
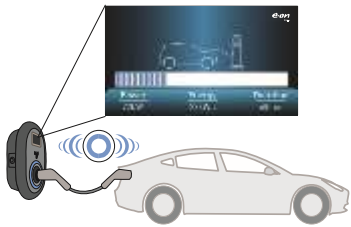
The charging station behaves in automatic charging start-up mode as shown below:

a) If no configuration is made in the configuration screens for 60 seconds and the charging cable is connected, the charging station automatically starts in autostart mode.

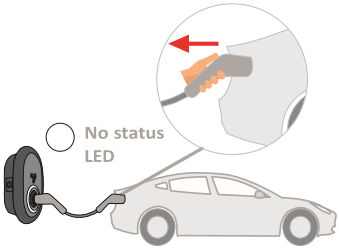
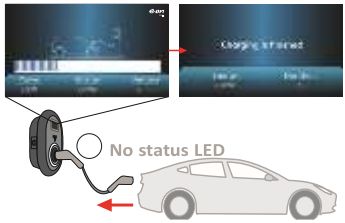
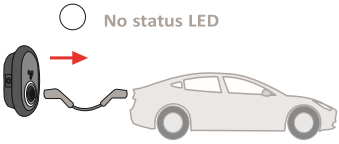
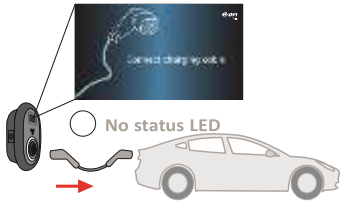
b) If the last RFID card is deleted from the list of local RFID cards, the charger starts in autostart mode.

5.4.1.1 - MODEL WITH SOCKET

5.4.1.1.1 - CONNECTING AND CHARGING THE VEHICLE

Model without display	Model with display
1 - Ensure that the vehicle and station are ready for charging. 	**1 -** Ensure that the vehicle and station are ready for charging. 
2 - Insert the charging plug into the socket on the vehicle and into the socket on the charging station. 	**2 -** Insert the charging plug into the socket on the vehicle and into the socket on the charging station. 
3 - Charging starts automatically and the status indicator LED lights up blue. 	**3 -** Charging starts automatically and the status indicator LED lights up blue. 

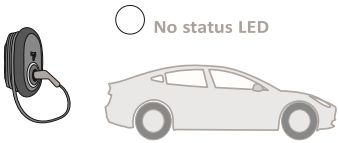
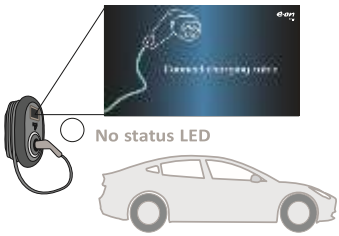
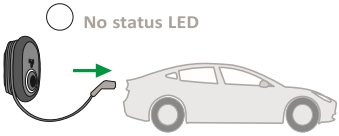
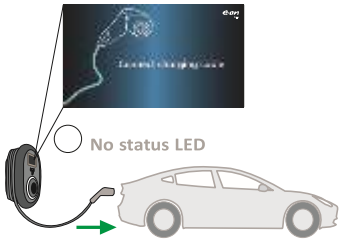
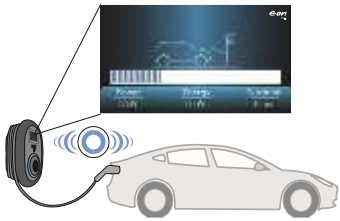
5.4.1.1.2 - STOP CHARGING

Model without display	Model with display
1- Disconnect the charging cable from the vehicle first in order to stop charging. Do not attempt to remove the plug from the station before disconnecting it from the vehicle. Otherwise, the locking mechanism could be damaged.  	1- Disconnect the charging cable from the vehicle first in order to stop charging. Do not attempt to remove the plug from the station before disconnecting it from the vehicle Otherwise, the locking mechanism could be damaged. 
2 - Unplug the charging cable from the station.  	2 - Unplug the charging cable from the station. 

5.4.1.2 - MODEL WITH TETHERED CABLE

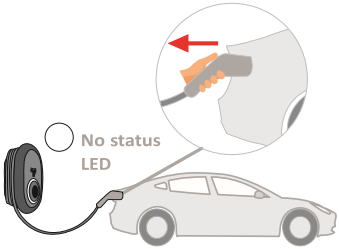
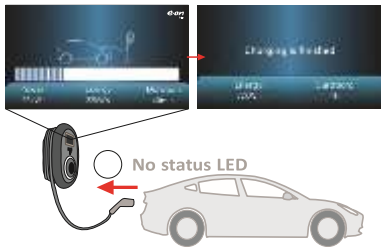
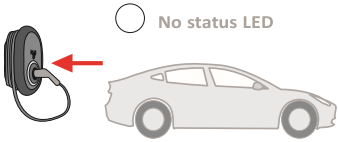
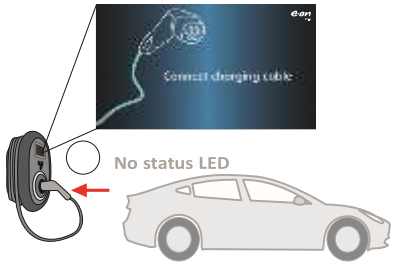
5.4.1.2.1 - CONNECTING AND CHARGING THE VEHICLE

Model without display	Model with display

1 - Ensure that the vehicle and station are ready for charging. 	**1 -** Ensure that the vehicle and station are ready for charging. 
2 - Insert the charging plug into the socket on the vehicle and into the socket on the charging station. 	**2 -** Insert the charging plug into the socket on the vehicle and into the socket on the charging station. 
3 - Charging starts automatically and the status indicator LED lights up blue. 	**3 -** Charging starts automatically and the status indicator LED lights up blue. 

5.4.1.2.2 - STOP CHARGING

Model without display	Model with display

1- Disconnect the charging cable from the vehicle first in order to stop charging.  	1- Disconnect the charging cable from the vehicle first in order to stop charging. 
2 - Insert the charging plug into the charging socket of the station.  	2 - Insert the charging plug into the charging socket of the station. 

NOTE: If the last RFID card is deleted from the list of local RFID cards, the charger starts in auto-start mode (plug&charge).

5.4.2 - AUTHORISED RFID MODE

If your EVC product has RFID cards, you will find RFID cards (1x master card; 2 x user cards). The master RFID card is required to add or delete user RFID cards. The user RFID card is needed to start or stop a charging session.

5.4.2.1 - REGISTERING USER RFID CARD

In standalone mode, the master RFID card is already registered in the charger. If the master RFID card on the charging station is touched when the charging cable is not connected, the charger starts

transmitting via Bluetooth and at the same time the user's RFID card can be added to the charger's local RFID list. During this time, the LED starts flashing blue for 60 seconds. The user's RFID card can be added/deleted. If no configuration is made within 60 seconds, the charging station exits configuration mode and returns to the previous mode.

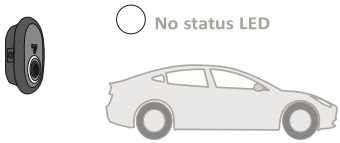
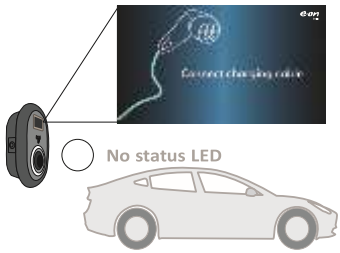
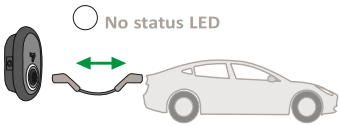
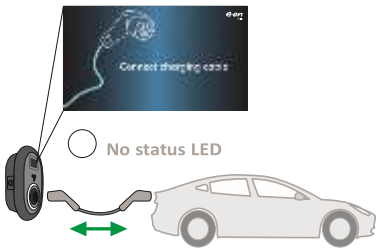
5.4.2.1.1 - ADD/DELETE RFID CARD TO/FROM A LOCAL RFID LIST

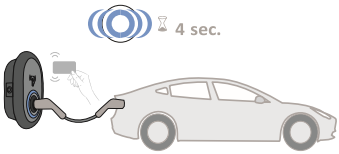
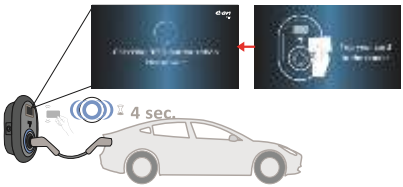
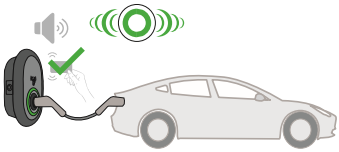
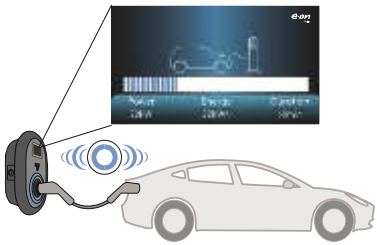
As previously mentioned, if any user's RFID card that is not in the local RFID list is touched within 60 seconds of configuration mode, it is added to the list. Similarly, if a user's RFID card that has already been added to the local RFID list is touched, it will be deleted from the list. If the last RFID card is deleted from the list of local RFID cards, the charger goes into autostart mode.

5.4.2.2 - VEHICLE CONNECTION & CHARGING WITH RFID CARD

5.4.2.2.1 - MODEL WITH SOCKET

5.4.2.2.1.1 - CONNECTING AND CHARGING VEHICLES

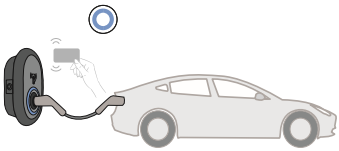
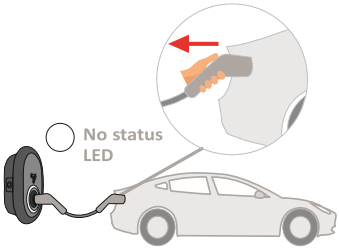
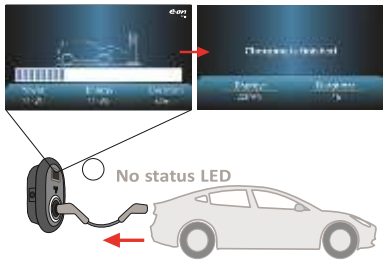
Model without display	Model with display
1 - Ensure that the vehicle and station are ready for charging. 	1 - Ensure that the vehicle and station are ready for charging. 
2 - Insert the charging plug into the socket on the vehicle and into the socket on the charging station. 	2 - Insert the charging plug into the socket on the vehicle and into the socket on the charging station. 

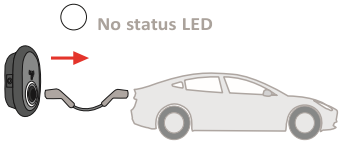
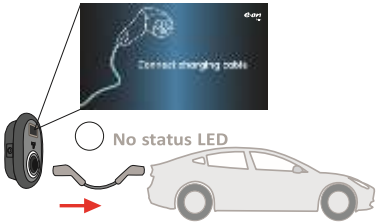
3- Touch the RFID card on the reader. 	**3-** Touch the RFID card on the reader. 
4- It is possible to start the charging process with a previously authorised card. 	**4-** It is possible to start the charging process with a previously authorised card. 
5 - Charging starts and the status indicator LED lights up blue. 	**5 -** Charging starts and the status indicator LED lights up blue. 

NOTE: The charging operation is refused by the charging station when you want to start charging with an unauthorised card. It takes about one minute to restart the charging station after reset.

5.4.2.2.1.2 - STOP CHARGING

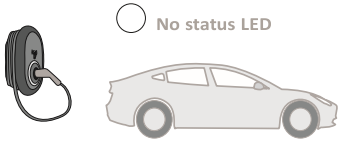
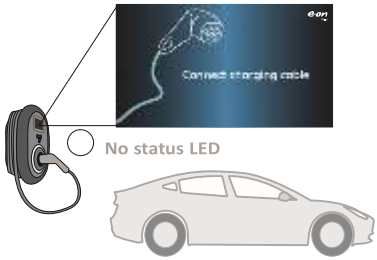
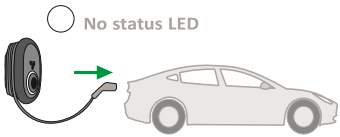
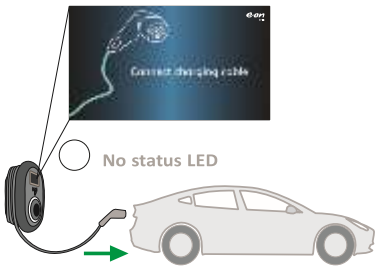
Model without display	Model with display

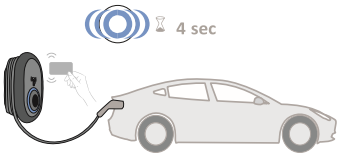
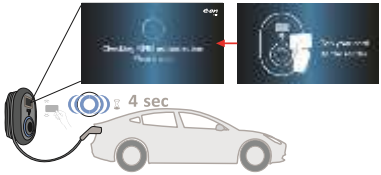
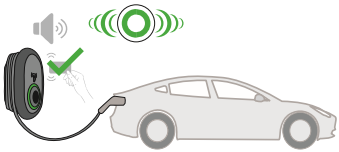
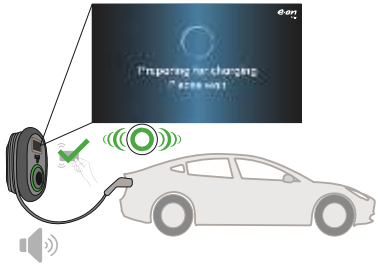
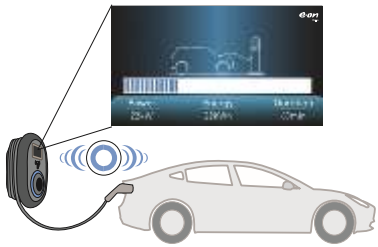
1- To interrupt charging you can follow the alternative methods explained below. Do not attempt to disconnect the charging cable from the station before stopping charging, otherwise the locking mechanism may be damaged.	**1-** To interrupt charging you can follow the alternative methods explained below. Do not attempt to disconnect the charging cable from the station before stopping charging, otherwise the locking mechanism may be damaged.
Method no. 1 Charging can be terminated by touching the RFID card that was used to start the charging session. 	**Method no. 1** Charging can be terminated by touching the RFID card that was used to start the charging session. 
Method no. 2 Charging can be interrupted by first disconnecting the charging cable from the vehicle. 	**Method no. 2** Charging can be interrupted by first disconnecting the charging cable from the vehicle. 

2 - Unplug the charging cable from the station. 	**2 -** Unplug the charging cable from the station. 

5.4.2.2.2 - MODEL WITH TETHERED CABLE CONNECTED

5.4.2.2.2.1 - CONNECTING AND CHARGING VEHICLES

Model without display	Model with display
1 - Ensure that the vehicle and station are ready for charging. 	**1 -** Ensure that the vehicle and station are ready for charging. 
2 - Insert the charging plug into the vehicle socket. 	**2 -** Insert the charging plug into the vehicle socket. 

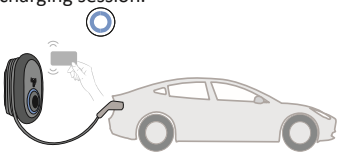
3- Touch the master RFID card on the RFID reader.  	3- Touch the RFID card on the RFID reader. 
4- It is possible to start the charging process with a previously authorised card. 	4- It is possible to start the charging process with a previously authorised card. 
5 - Charging starts and the status indicator LED lights up blue. 	5 - Charging starts and the status indicator LED lights up blue. 

NOTE: The charging operation is refused by the charging station when you want to start charging with an unauthorised card. It takes about one minute to restart the charging station after reset.

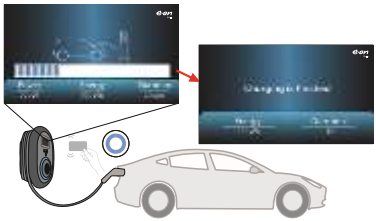
5.4.2.2.2.2 - STOP CHARGING

Model without display	Model with display
1- To interrupt charging you can follow the alternative methods explained below.	1- To interrupt charging you can follow the alternative methods explained below.

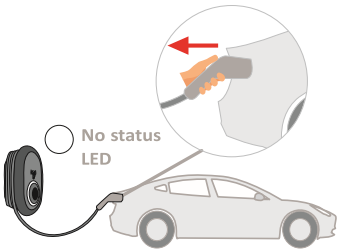
Method no. 1 Charging can be terminated by touching the RFID card that was used to start the charging session.



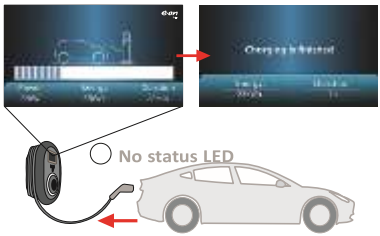
Method no. 1 Charging can be terminated by touching the RFID card that was used to start the charging session.



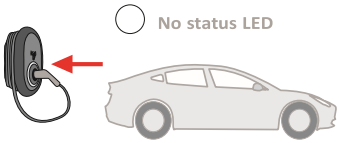
Method no. 2 Charging can be interrupted by first disconnecting the charging cable from the vehicle.



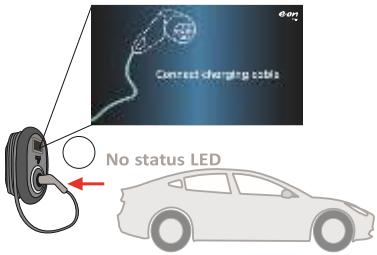
Method no. 2 Charging can be interrupted by disconnecting the charging cable from the vehicle.



2 - Insert the charging plug into the charging socket of the station.



2 - Insert the charging plug into the charging socket of the station.

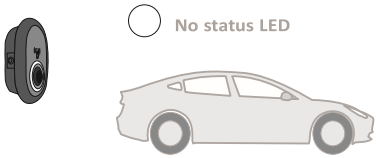
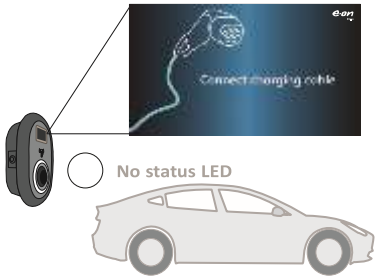
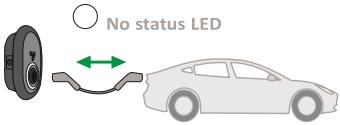
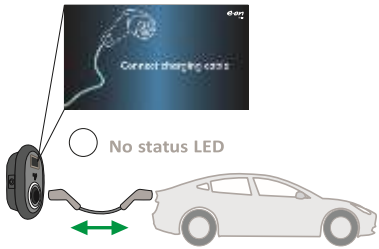


5.5 - OCPP CONNECTED MODE

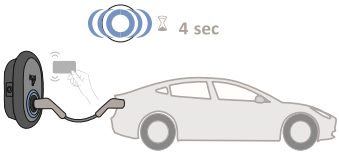
Presets E.ON Auto-Detect, WLAN, LAN-WAN, LAN-APN use OCPP connected mode of the charging station. All B2B variants are pre-configured as E.ON Auto-Detect preset.All B2C variants are preconfigured as WLAN preset. They are using OCPP connected mode by default.

5.5.1 - MODELS WITH SOCKET

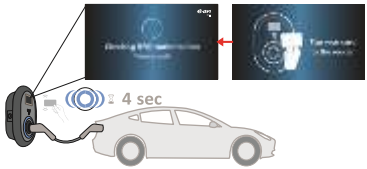
5.5.1.1 - VEHICLE CONNECTION & CHARGING

Model without display	Model with display
1 - Ensure that the vehicle and station are ready for charging. 	1 - Ensure that the vehicle and station are ready for charging. 
2 - Insert the charging plug into the socket on the vehicle and into the socket on the charging station. 	2 - Insert the charging plug into the socket on the vehicle and into the socket on the charging station. 

3- Touch the RFID card on the RFID reader to start charging with a card provided by your operator.



3- Touch the RFID card on the RFID reader to start charging with a card provided by your operator.



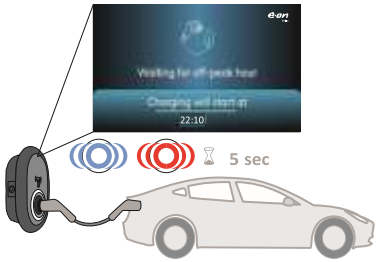
4- You may start charging with an authorized RFID card. If the RFID Card is authorized,charging station will wait for off-peak time.

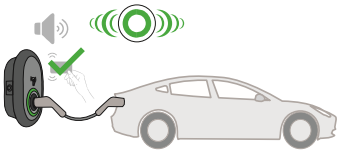
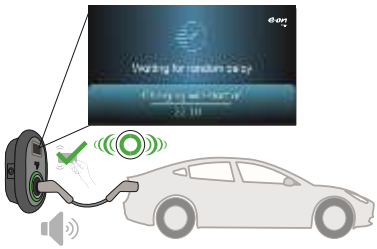
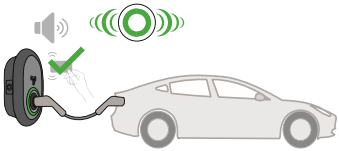
Note: You can tap authorized RFID Card again for force charging while waiting for off peak period to be able to start charging immediately in peak time.

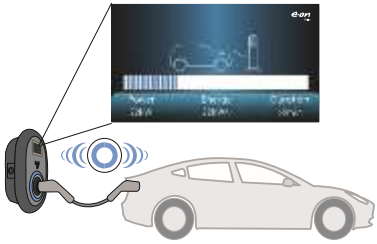
4- You may start charging with an authorized RFID card. If the RFID Card is authorized,“Waiting for off-peak hour, charging will start at hh:mm” will be shown on the screen as below while scheduling is active.

i.e : Wait for off-peak time(22:00-08:00).

Note: You can tap authorized RFID Card again for force charging while waiting for off peak period to be able to start charging immediately in peak time.



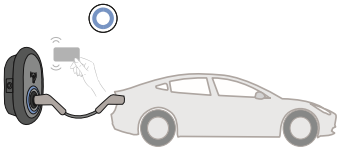
5 - When starting a charging session, Random Delay is applied. A random delay time is added to the off-peak time. Charging session will start after the delay.It is 600 seconds by default. **Note:** You can tap the authorized RFID Card again for force charging while waiting for random delay period to be able to start charging immediately. Forced Charge will cancel both off-peak hour waiting period and randomized delay for that charging session 	**5 -**When starting a charging session, Random Delay is applied. A random delay time is added to the off-peak time. Charging session will start after the delay.It is 600 seconds by default. “Waiting for random delay, Charging will start at hh:mm” will be shown on the display as follows. **Note:** You can tap the authorized RFID Card again for force charging while waiting for random delay period to be able to start charging immediately. Forced Charge will cancel both off-peak hour waiting period and randomized delay for that charging session 
6 - After the randomised delay,charging will start. 	**6 -** After the randomised delay,charging will start. 

7 - Charging starts and the status indicator LED lights up blue. 	**7 -** Charging starts and the status indicator LED lights up blue. 
8 - When the 1st off-peak time (22:00-08:00) ends, the charger is suspended and waits for the 2nd off-peak time (11:00-16:00) to start charging. 	**8 -** When the 1st off-peak time(22:00-08:00) is over, the charger goes to suspended and if the 2nd off-peak time(11:00 -16:00) is set for start charging, “Waiting for off peak hour,Charging will start at hh: mm” will be shown on the display as follows. 

5.5.1.2 - STOP CHARGING

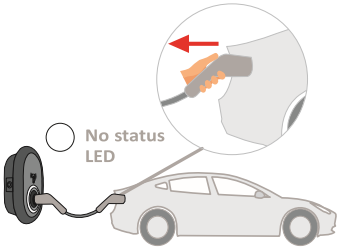
Model without display	Model with display
1- You may follow the alternative methods specified below to stop charging. Do not attempt to unplug the charging cable from the station before stopping charging otherwise locking mechanism may get damaged.	**1-** You may follow the alternative methods specified below to stop charging. Do not attempt to unplug the charging cable from the station before stopping charging otherwise locking mechanism may get damaged.

Method no. 1 Charging can be terminated by touching the RFID card that was used to start the charging session.

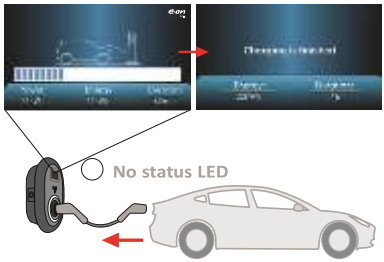


Method no. 1 Charging can be terminated by touching the RFID card that was used to start the charging session.

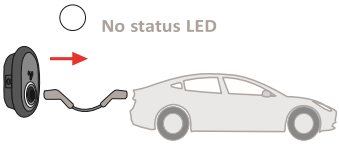
Method no. 2 Charging can be interrupted by first disconnecting the charging cable from the vehicle.



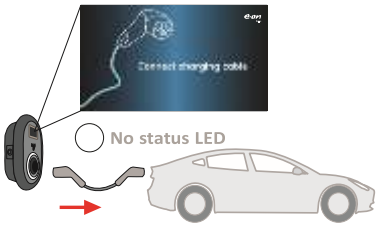
Method no. 2 Charging can be interrupted by first disconnecting the charging cable from the vehicle.



2 - Disconnect the charging cable from the station.

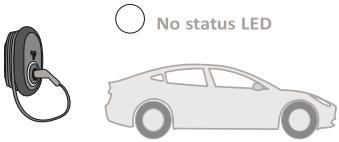
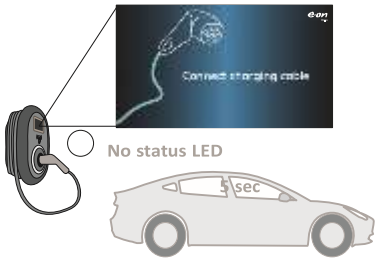
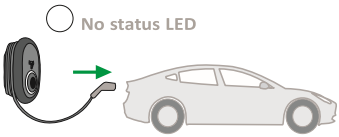
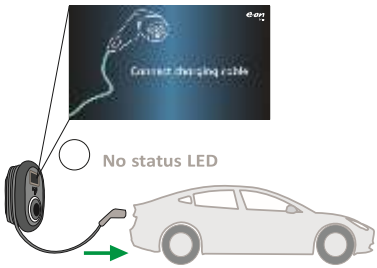


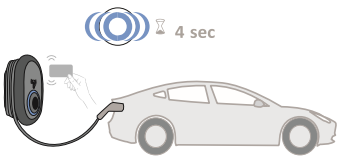
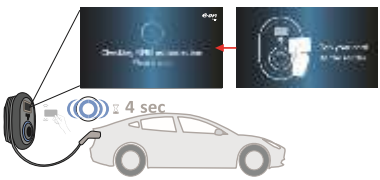
2 - Disconnect the charging cable from the station.



5.5.2 - MODEL WITH TETHERED CABLE

5.5.2.1 - VEHICLE CONNECTION & CHARGING

Model without display	Model with display
1 - Ensure that the vehicle and station are ready for charging. 	1 - Ensure that the vehicle and station are ready for charging. 
2 - Insert the charging plug into the vehicle socket. 	2 - Insert the charging plug into the vehicle socket. 

3- Touch the RFID card on the RFID reader. You can start charging with a card provided by your operator. 	3- Touch the RFID card on the RFID reader. You can start charging with a card provided by your operator. 

4- You may start charging with an authorized RFID card.If the RFID Card is authorized,charging station will wait for off-peak time.

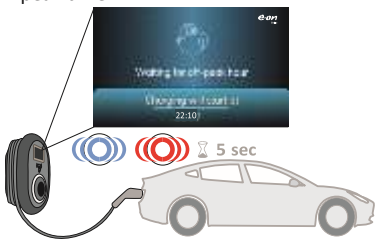
Note: You can tap authorized RFID Card again for force charging while waiting for off peak period to be able to start charging immediately in peak time.

4- You may start charging with an authorized RFID card.If the RFID Card is authorized,"Waiting for off-peak hour, charging will start at hh:mm" will be shown on the screen as below while scheduling is active.

i.e : Wait for off-peak time(22:00-08:00).

Note: You can tap authorized RFID Card again for force charging while waiting for off peak period to be able to start charging immediately

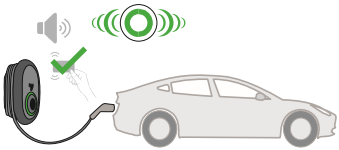
in peak time.



5 - When starting a charging session, Random Delay is applied.A random delay time is added to the off-peak time. Charging session will start after the delay.It is 600 seconds by default.

Note: You can tap the authorized RFID Card again for force charging while waiting for random delay period to be able to start charging immediately.

Forced Charge will cancel both off-peak hour waiting period and randomized delay for that charging session

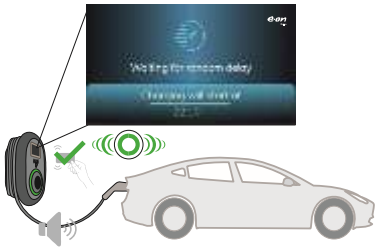


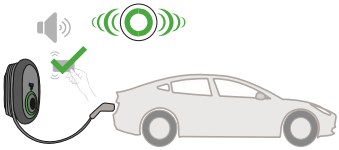
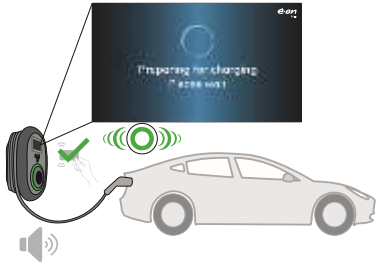
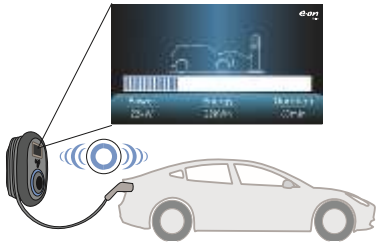
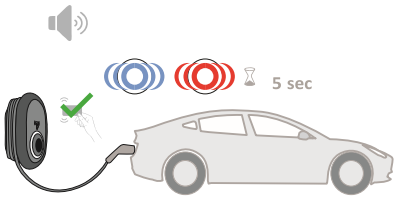
5 -When starting a charging session, Random Delay is applied.A random delay time is added to the off-peak time. Charging session will start after the delay.It is 600 seconds by default.

"Waiting for random delay, Charging will start at hh:mm" will be shown on the display as follows.

Note: You can tap the authorized RFID Card again for force charging while waiting for random delay period to be able to start charging immediately.

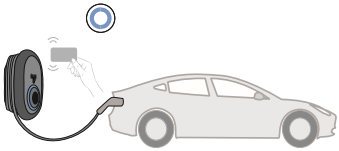
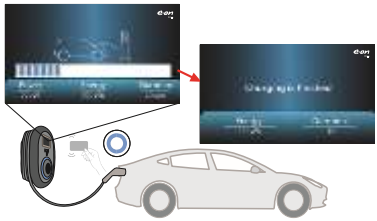
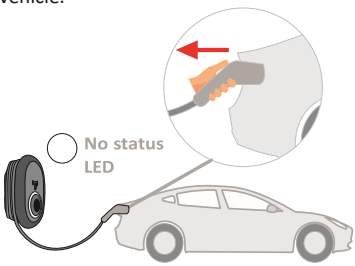
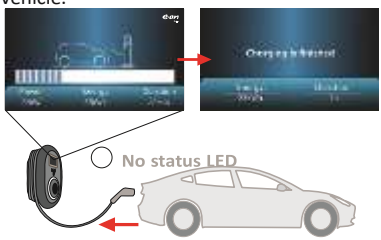
Forced Charge will cancel both off-peak hour waiting period and randomized delay for that charging session

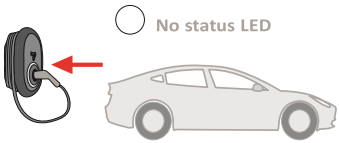
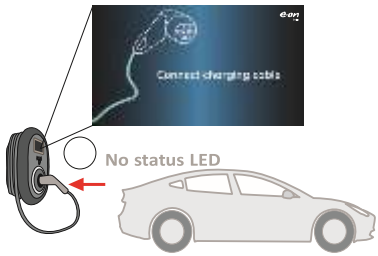


6 - After the randomised delay,charging will start. 	**6 -** After the randomised delay,charging will start. 
7 - Charging starts and the status indicator LED lights up blue. 	**7 -** Charging starts and the status indicator LED lights up blue. 
8 - When the 1st off-peak time (22:00-08:00) ends, the charger is suspended and waits for the 2nd off-peak time (11:00-16:00) to start charging. 	**8 -** When the 1st off-peak time(22:00-08:00) is over, the charger goes to suspended and if the 2nd off-peak time(11:00 -16:00) is set for start charging, “Waiting for off peak hour,Charging will start at hh: mm” will be shown on the display as follows. 

NOTE: The charging operation is refused by the charging station when you want to start charging with an unauthorised card. It takes about one minute to restart the charging station after reset.

5.5.2.2 - STOP CHARGING

Model without display	Model with display
1- To interrupt charging you can follow the alternative methods explained below.	**1-** To interrupt charging you can follow the alternative methods explained below.
Method no. 1 Charging can be terminated by touching the RFID card that was used to start the charging session. 	**Method no. 1** Charging can be terminated by touching the RFID card that was used to start the charging session. 
Method no. 2 Charging can be interrupted by disconnecting the charging cable from the vehicle. 	**Method no. 2** Charging can be interrupted by disconnecting the charging cable from the vehicle. 

2 - Insert the charging plug into the charging socket of the station.  	**2 -** Insert the charging plug into the charging socket of the station. 

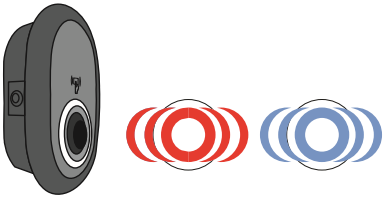
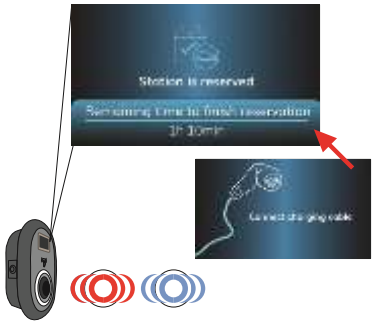
5.5.3 - OCPP 1.6 JSON ADDITIONAL FEATURES

5.5.3.1 - RESERVATION FEATURE

Reservation feature allows the user to reserve the charging station for a period of time. During this period:

- The LED will blink in red and blue.
- Only the RFID card that is used for reservation may initiate the charging process. Other cards are rejected.

If charging is not initiated until the reservation period is expired, the LED will switch to “No Light Indication” mode.

Model without display	Model with display
	

5.5.3.2 - REMOTE CHARGE INITIATION / TERMINATION

This feature is supported by the charging station. If it is also supported by the connected server, then charging process may be initiated/terminated remotely.

5.5.3.3 - HARD RESET/SOFT RESET

If the electric vehicle charging station does not work properly, the service provider can restart the device using this function. There are two types of reset. Software or hardware reset can be selected.

5.5.3.4 - UNLOCKING THE SOCKET

If the charging cable is locked in the station, the service provider may unlock the cable via this feature.

6- MID METER MODELS (Optional)

The total active energy can be displayed on the MID meter display (products with MID meter).

7 - ERROR AND FAULT CONDITIONS

Due to a possible fault, the display models may show the 'Out of order!' screen

7.1 - BROKEN PEN DETECTION FEATURE (Optional)

This feature is only valid for use on single phase TN-S and TN-C-S supplies.

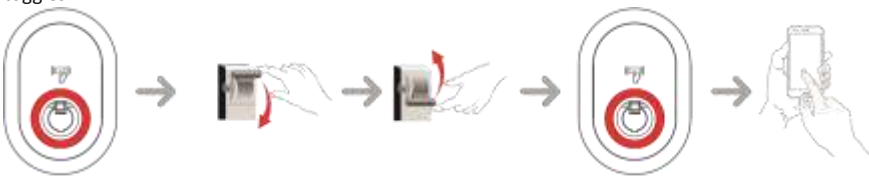
Protection against electric shock in the installation is provided by a contactor which electrically disconnects the vehicle from the live conductors of the supply ,from protective earth and from control pilot within 5 seconds in the event of the supply voltage to the charging point, between the line and neutral conductors, being greater than 253 V rms or less than 207 V rms.

If the unit detects broken PEN, it automatically goes into error mode and can only be cleared by power cycling the charge point i.e. powering off and back on again. The unit should be reset to clear the error.

7.2 - GENERAL ERROR CONDITIONS

If the status LED is red and solid, switch the charging station off and switch it back on.

If the LED is still red and solid, please contact your installer. Wait approximately 10 seconds between toggles.



7.3 - OTHER ERROR CONDITIONS

Status indicator	Problem	Possible causes	Recommended solutions
	Constant LED.	The AC supply voltage may not be within the range indicated in the operating manual. The earth connection may not have been performed and/or the phase/neutral connections may be reversed or the charging station may have a fault.	Check that the voltage is within the desired limits and that the earth connection has been made. If the LED is still red, please contact service.
4 sec	LED flashes blue every four seconds, it will not be possible to start charging the electric vehicle or lock the plug into the charging station	The charging cable may not be properly connected to the charging station or electric vehicle.	Ensure that the charging plug is correctly connected to the station and the vehicle. Check whether the electric vehicle is in recharge mode.

	Status LED flashes red	This error message will be displayed if the vehicle is equipped with a battery type that requires ventilation.	This charging station is not suitable for charging such vehicles.

NOTE: if a Wi-Fi connection problem occurs and the charger cannot be controlled, restart the router and check the connections.

8 - UK REGULATION CHANGES ACCORDING TO SMART CHARGING (OPTIONAL)

8.1A -Randomised Delay and

8.1B -Off-Peak Charging Behaviour

a.Randomised delay won't be repeated if applied in a charging period (except after power off and second transition to off peak hour, E.g: charging starts at 15:00 and paused at 16:00, when starting at 22:00 again randomized delay will be applied again.)

b.Randomised delay and waiting for off-peak charging will be cancelled if user tap RFID card for forced charging (first tap if charging station is in autostart mode, second tap if the charging station is in authorized mode). If the unit is in autostart mode any RFID card will force a charge, if the unit is in authorized mode the authorizing card of that charging session will force charge. Forced Charge will cancel both off-peak hour waiting period and randomized delay for that charging session.

c.While starting a charge session, if the time is in a peak period, the charging start will be delayed to the upcoming off-peak period start time.

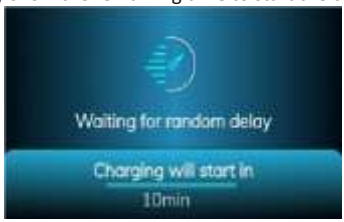
Randomized delay will be applied when the charging (actual energy transfer) starts.

d.If the time is in off-peak period, the randomized delay will be applied (if enabled) and then charging will start after delay. (It is only a numerical value and should be 600 by default). During the charging session if the time shifts from off-peak to peak, charging will continue or pause according to the setting "ContinueAfterOffPeakHour".

e.If unit has a screen "Waiting for off-peak hour, charging will start at hh:mm" will be shown on the screen as below while OCPP mode is active.

f.If unit has a screen, “Waiting for random delay, Charging will start at hh:mm” will be shown on the screen as below while OCPP mode and random delay mode are active sync of the time information from the server.

g.If a unit can connect to a central system, it will show exact charging start time on the screen. If a unit can not sync local time from the server due to either a connection issue or the unit is used locally without connection, it will only show the remaining time to start the charging session**.**



h.If unit does not have screen then waiting for off-peak hour will be shown on LED as Blue-Red blinking. (will be shut of after 5 mins)

i.If unit does not have a screen then randomised delay will be shown on LED as Green blinking.

OCPP mode change config items:

i. RandomisedDelayMaxSeconds: [0, 1800] (default:600, can be set to “0” for disabling) **ii.** CurrentSessionRandomDelay: random delay value calculated for active charging session. The value will be decremented by 1 minute intervals with time passes. (subject to change) **iii.** OffPeakCharging: TRUE / FALSE (Default: TRUE) **iv.** OffPeakChargingWeekend: TRUE / FALSE (Default: FALSE)

v.OffPeakChargingTimeSlots: 11:00-16:00, 22:00-08:00 (default: 11:00-16:00, 22:00-08:00) **vi.**ContinueAfterOffPeakHour: TRUE / FALSE (Default: FALSE) **vii.** ContinueChargingAfterPowerLoss: TRUE / FALSE (Default: TRUE) **viii.** ForcedCharging: TRUE / FALSE (Default: False, OCPP CS may set this to TRUE for overriding randomised delay and off-peak and after the charging session charging station will set this to FALSE again.)

Standalone / Local RFID List:

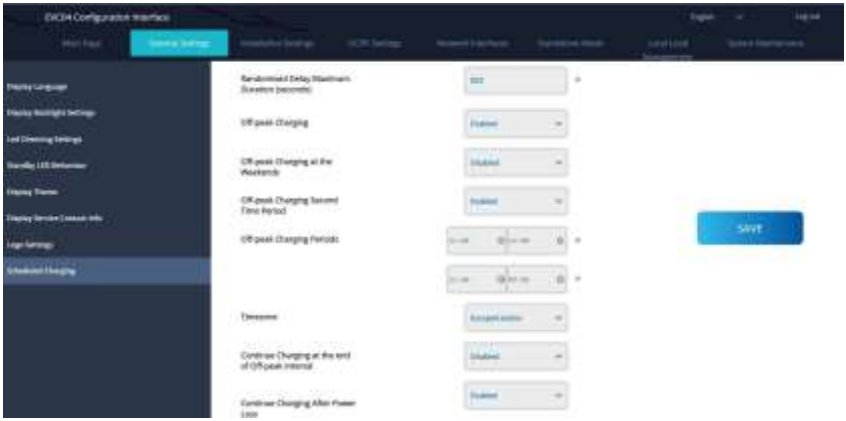
Webconfig General Settings menu “Smart Charging” tab:

i.Randomised delay maximum duration (seconds) Editable for admin user, readonly for end user credentials [0, 1800] (default: 600, can be set to “0” for disabling) **ii.**Off-peak Charging (Enabled /

Disabled) **iii.**Off-peak Charging at the Weekends (Enabled / Disabled) (default: Enabled for UK, Disabled for rest) **iv.** Off-peak Charging Periods: 11:00-16:00, 22:00-08:00 (default: 11:00-16:00, 22:00-08:00) **v.** Continue charging at the end of off-peak interval (Enabled / Disabled) **vi.** Continue charging without re-authentication after power loss (Enabled / Disabled)

Configuration Web Interface Settings

Off-peak charging function will be active if and only if device is connected to the central system.



For the unit in standalone mode the settings will be as above. For Standalone modes, off peak charging will be hidden because of the time sync issue.

Randomised Delay Maximum Duration, can take values between 0 and 1800.

9 - CLEANING AND MAINTENANCE

DANGER

- Do not clean the electric vehicle charging device during charging.
- Do not wash the device with water.
- Do not use abrasive cloths and cleaning agents. We recommend to use a microfibre cloth.

Failure to observe these warnings can lead to death and serious injury. In addition, it can cause damage to the device.

Disposal

The symbol of the crossed out Garbage can on wheels on the Product or its packaging means that the device is not in the Household waste may be disposed of, rather requires separa-
te disposal. she can buy the old device free of charge from a suitable municipal collection point for Waste electrical and electronic equipment, e.g. a Recycling center. The addresses you can get from your city or Local government. Larger old devices When purchasing a new device, the same type of device that essentially the same functions as the new one Device fulfilled, with a corresponding Can be returned to dealers free of charge. Regarding the return modalities of an old device in the event of delivery of the new device, please contact to your dealer.
Please note that for the Deletion of personal data the device to be disposed of itself are responsible. The device may contain substances that incorrect disposal environment and endanger human health be able. Material recycling helps reduce waste reduce and resources too save.Through the separate collection of old devices and their recycling You to avoid negative Environmental impact

The device may contain substances that can endanger the environment and human health if disposed of incorrectly. Material recycling helps reduce waste and conserve resources. By collecting your old equipment separately and recycling it, you will help prevent negative effects on the environment and human health.

VESTEL

VESTEL KOMUNIKASYON SANAYI VE TICARET A.Ş.
Ege Serbest Bölgesi Akçay Cad. Ayfer Sok. 144/1
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