USER MANUAL

7kW AC MiD WALL BOX

MID Lite - AC7000-BB-42

HUMAX EV CHARGING

humaxcharging.com/uk

SAFETY AND WARNINGS

Save these instructions. Read all instructions before installing or using the charger.

1. Keep the charger away from explosive or flammable materials, chemicals, vapours, and other hazardous objects.
2. Keep the charger socket clean and dry. If it gets dirty, wipe it with a clean, dry cloth.
3. Do not touch the socket pin when the unit is powered on.
4. Only a qualified technician is allowed to install this charger. The installation must comply with local, regional and national regulations.
5. Do not use the charger if it is showing any visible product damage such as cracks, abrasions, exposed cables, and other visible defects or is showing an error state. In the event of such damage, contact a qualified technician immediately.
6. Do not attempt to disassemble, repair, or refit the charger. If necessary, contact a qualified technician. Improper operation will result in device damage, electric leakage, and other hazards.
7. If any abnormal condition occurs, turn off incoming power supply immediately.
8. Where possible, please ensure the charger is protected against lightning and heavy rain.
9. Keep children away from the charger.
10. Only use the charger for charging your electric vehicle while it is parked and stationary.
11. Our packaging materials are environmentally friendly and can be recycled. Please recycle packaging in appropriate containers. Do not dispose of this device with household waste. It should be taken to a suitable facility for recycling electrical and electronic devices. For more detailed information about recycling this device, please contact your local city/town council office or your household waste disposal service.

WARNING!

The device can be in an electrically energised state. There is a risk of shock and electrical hazards. Please strictly observe all warnings on the device and user manuals. The cover of the charger is only to be removed by a qualified electrician.

CONTENTS

END USER GUIDE

1

LIMITED WARRANTY

Our warranty is valid only if the product is registered using the instructions below:

Scan the QR code or visit:
https://humaxcharging.com/uk/warranty/
to submit the warranty registration form.

Installers and end users must follow the checklist provided in the user manual to finish the installation procedure.

This product is covered under a three-year warranty from the date of installation by HUMAX against any defects in materials and workmanship. A defective product will be repaired, replaced or refunded at no cost to the owner by HUMAX during this period.

Please take note that any normal wear & tear, misuse, accidents, inadequate maintenance and faults due to incorrect installation are not covered by this limited warranty. Any alterations or part replacements carried out by the customer would be considered inappropriate use. The terms and conditions stated in this limited warranty do not, unless otherwise restricted by relevant law, exclude, limit, or change the mandatory statutory rights of product sales.

If you suspect a defect in your product, please email: uk.support@humaxcharging.co.uk, and a support ticket will logged and queued. Our support team will then investigate the matter and act promptly for a quick solution to the issue.

Please save your purchase receipt as evidence of your transaction, as this will support a valid potential future warranty claim. You can find the product code and serial number on the side of the product.

Note: Failure to register will void the warranty.

2 INSTALLATION CHECKLIST

Please complete all actions on the following checklist to enable your warranty registration.

NO	ACTION ITEM	RESPONSIBILITY	USER MANUAL REFERENCE	
	Pre-checks for the end user	**End user**		
1	Installation should be carried out by a qualified NICEIC registered electrician in accordance with local electrical regulations			☐
	Charger installation pre-checks	**Installer**		
2	Check the package contents and make sure that no items are missing		Section 5	☐
3	Make sure the Wi-Fi network band is 2.4 GHz or if using Ethernet, then the cable should not be more than 100m long		Section 6.2.2	☐
4	Installers must follow the latest BS7671 wiring regulations and the IET Code of Practice for Electric Vehicle Charging Equipment Installation		Section 6.2.1	☐
	Charger installation	**Installer**		
5	Mount the charger on the wall		Section 7.1	☐
6	Type A or Type F RCBO should be installed in the distribution unit according to the BS7671 regulations	Photo required	Section 6.2.1	☐
7	Ensure appropriate cables are used for the supply connection	Photo required	Section 7.2.2	☐
8	Ensure the CT clamp is connected if required.Make sure the polarity of the CT clamp connected to the charger and distribution unit is correct. (optional)	Photo required	Section 7.2.2	☐
9	Connect the ethernet if required	Photo required	Section 7.2.2	☐
	Charger installation tests	**Installer**		
10	Complete the installation tests in accordance with the latest version of BS7671		Section 9	☐
11	Provide an electrical installation certificate or an electrical installation condition report with any schedules of inspection and testing to the end user on completion			☐
	Charger configuration in the Access Point (AP) webpage	**Installer**		
12	Connect the charger to the internet through AP page (Wi-Fi or ethernet)		Section 10.1	☐
13	Configure the Load balance		Section 10.2	☐

14	Configure the Max charging current if required.		Section 10.3	☐
NO	ACTION ITEM	RESPONSIBILITY	USER MANUAL REFERENCE	
	Monta app: Recommend installer creates account	**Installer**		
15	Integrate the charger to the app		Section 10.4	☐
16	Confirm the charger works via the Monta app		Section 10.4	☐
17	Transfer the charger in the app to the end user		Section 10.4	☐
18	Transfer all the installation photos to the end user			☐
	Warranty Registration form: Complete via manufacturer website	**End user/ Installer**	Scan the QR code on Pg. 5	
19	Provide end user details			☐
20	Provide installer details			☐
21	Upload supply connection photos			☐
22	Upload CT clamp connection photos (if installed)			☐
23	Upload consumer unit with cover off photos			☐
24	Upload installation photos			☐
25	Upload charger Serial number photos			☐
26	Upload charger photo showing constant yellow LED light			☐

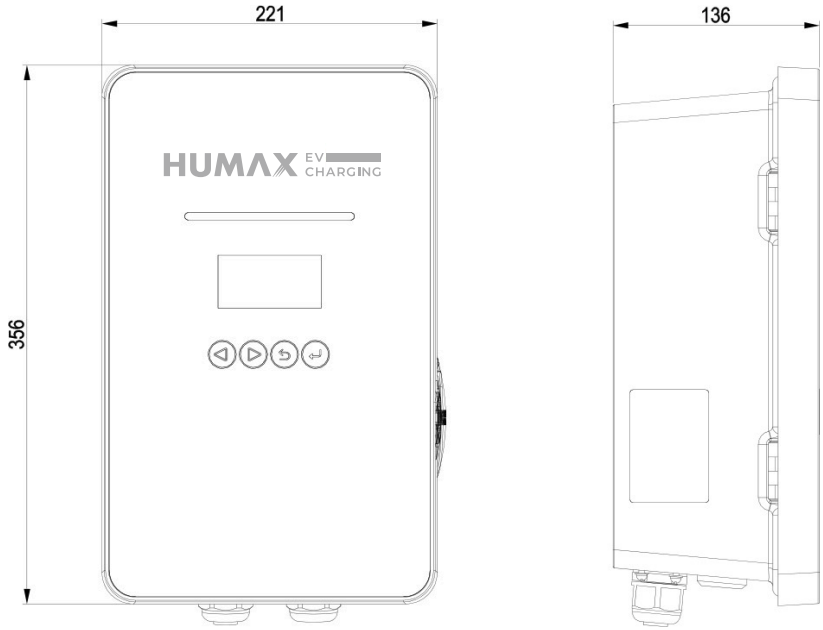
3 INTRODUCTION

ITEM	PARAMETERS	DESCRIPTION
Input	Power Supply	Single Phase (1P+N+PE)
	Rated Voltage	230V AC
	Rated Current	32A
	Frequency	50Hz
Output	Output Voltage	230V AC
	Maximum Current	32A
	Rated Power	7kW
User Interface	Charge Connector	Type 2 socket
	Enclosure	Plastic PC940
	LED Indicator	Green/Yellow/Red
	RFID Reader	Mifare ISO/IEC 14443 A
	Start Mode	Plug &Play / RFID card / Monta app
Communication	Communication	Wi-Fi 2.4GHz or Ethernet
	Protocol	OCPP 1.6J
Safety	Built-in RCD protection	RDC-PD with type A + DC 6mA according to IEC 62955
	Ingress Protection	IP54
	Impact Protection	IK08
	Electrical Protection	Over current protection, Residual current protection, Ground protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection, PEN Fault Protection
	Certification	BS EN IEC 61851-1:2019, IEC62955, BS IEC 61851-21-2:2021, BS EN IEC 61000-6-1:2019, BS EN IEC 61000-6-3:2007+A1, BS7671:2018-amd2:2022 722.411.4.1(iv), EN 300 328 V2.2.2:2019, EN 300 330 V2.1.1:2017, EN 301 489-1 V2.2.3:2019, EN 301 489-3 V2.1.1:2019, EN 301 489-17 V3.2.0:2017, EN 62311:2020, BS7671:2018-amd2:2020 722.411.4.1(iv)
	Warranty	3 years
Environment	Installation	Wall-mount/Floor-stand Installation
	Work Temperature	-30°~+50°
	Work Humidity	5%~95%
	Work Altitude	<2000m
Package	Product Dimension	356 x 221 x 136 mm (H x W x D)
	Package Dimension	485 x 325 x 202 mm (L x W x H)
	Net Weight	2.89kg
	Gross Weight	4.2kg

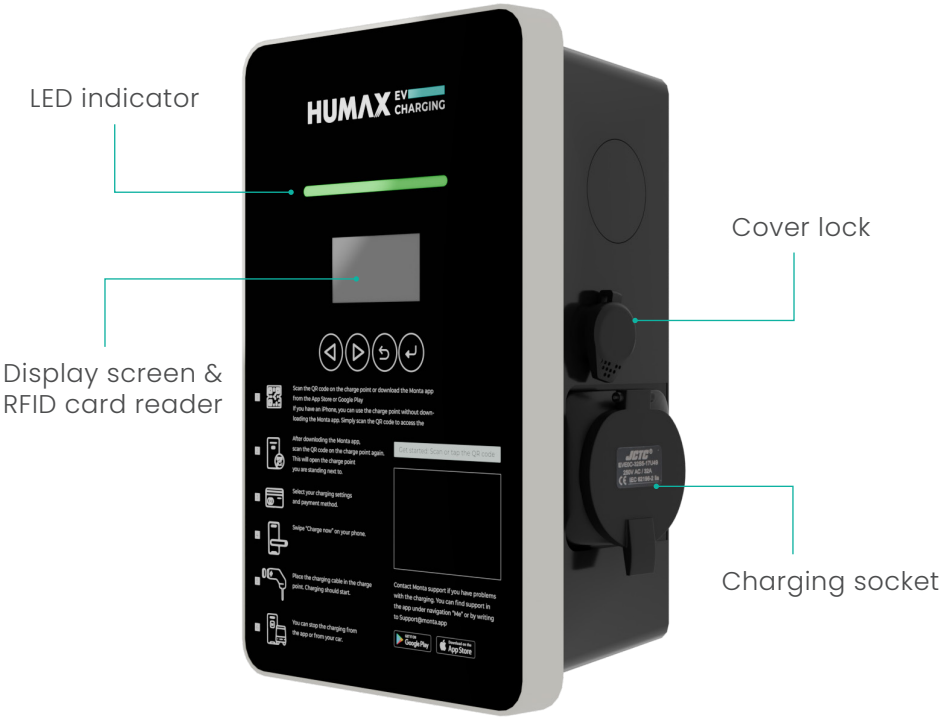
INSTALLATION GUIDE

4 PRODUCT INTRODUCTION

4.1 External structure



4.2 Charger visual overview



5 PACKAGE CONTENTS

Once opened, please carry out the following inspections:

Visual inspection
Visually inspect the charger's external appearance. If there is any breakage or damage, please notify the supplier immediately.

Item inspection
Confirm that all the items listed below are included with your product. If there is a shortage in the quantity of any item, or if any items are missing, please contact the supplier immediately.

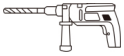
				
EV Charge Point (x1)	User Manual (x1)	Wall Plugs (x4)	M4*32 Screw (x4)	Wire ferrules (x6)
				
Charge Point Cover Key (x2)	Mounting Template (x1)	RFID card (x2)	Rubber Bung (x1)	Monta QR code sticker (x1)

Optional - may be purchased separately if required			
			
CT clamp (x1)	**Compact wire connector (x1)**	**Extension cable (x1)**	**Extra CT clamp plug (x1)**

6 OPERATION INSTRUCTIONS

6.1 Installation preparation

6.1.1 Tools required

TOOL NAME	PHOTO	FUNCTION
Multimeter		Test electrical connection and electrical parameter
Cross head screwdriver		Tightening screw
Electric drill		Drilling of mounting holes
Diagonal pliers		Cable cutting

6.1.2 Cables & materials

NAME	SPECIFICATION	QUANTITY
Power supply cable	Single-phase power supply cable Maximum Cross-Sectional Area: 6mm²	As required
RCBO	Type A or Type F Double Pole	1

The use of extension cords, adapters, and converter adapters is strictly prohibited.

6.2 Installation process

6.2.1 Installation notice

- Electrical devices should only be installed and maintained by qualified technicians. No responsibility is assumed by the manufacturer for issues arising as a consequence of installation by an unqualified person. A qualified technician is an electrician who has certified skills and knowledge related to the construction, installation, and operation of this type of electrical device and who has received safety training to recognize and avoid the hazards involved.
- All applicable local, regional, and national regulations must be applied when installing, repairing, and maintaining this device.
- The charger is equipped with 6mA DC Current Leakage Protection function which conducts an automated test for the 6mA DC.

- An approved Type A RCBO with earth leakage protection of 30mA and 40A current rating must be installed separately in the consumer unit by the installer.
- The charger is equipped with PEN Fault Protection and an automatic disconnection system which satisfies the requirements of BS7671:2018 Amendment 2:2022 722.411.4.1 (iv) the 18th Edition IET Wiring Regulations.
- In the event of the utilization voltage at the charger between live and neutral conductors being greater than 253 V rms or less than 207 V rms within 5s., this device provides protection from electric shock by electrically disconnecting the vehicle from the live conductors of the supply and from protective earth.
- The point above implies the charger can be installed without the need for an additional earth rod. However, if the customer or local regulations require that an earth rod is installed (for instance as part of an earthed system), then this should be connected to the dedicated terminal within the charger.

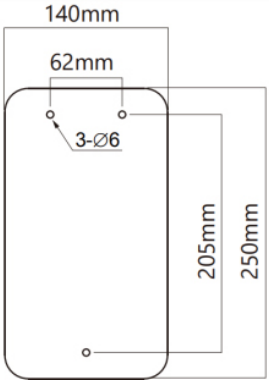
6.2.2 Pre-installation checks

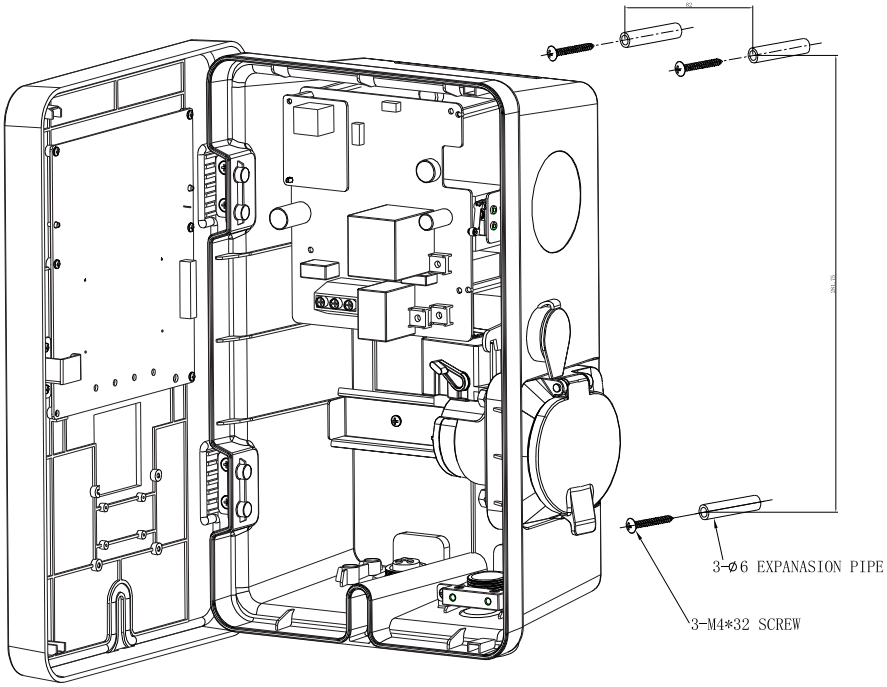
- Ensure that the site of installation meets the charger's technical specification and that there is no uncontrolled hazard arising from installation of this unit.
- Ensure the charger's location allows good operational access for normal use, repair, and maintenance.
- The AC input components for the power supply on site are to be correctly fitted with required protection devices prior to installation of the charger as per local, regional, and national regulations.
- Ensure that the charger location has good network connectivity:
    - This charger only supports 2.4GHz network. Wi-Fi signal strength between -50dBm to -60dBm is considered good.
    - A 2.4GHz Wi-Fi extender may be needed if the signal strength is below the range of -60dBm to -80dBm.
    - The Wi-Fi signal strength can be checked by utilising a Wi-Fi speed test app using a mobile phone.
- Ethernet (As alternative to Wi-Fi): Ensure the ethernet cable length has a maximum distance within 100 meters for good signal strength and speed.

7 INSTALLATION DETAILS

7.1 Mounting

1. Using the enclosed Mounting Template, drill 3 x Φ 6 * 35 mm holes in the wall and insert the wall plugs.
2. Screw 2 x M4*32mm self-tapping screws into the wall plugs, leaving a 5mm space, between the screw head and the wall.
3. Open the charger's front cover, hang the charger on the 2 x M4*32mm self-tapping screws, and secure it to the wall by inserting a third M4 screw at the base of the charger.



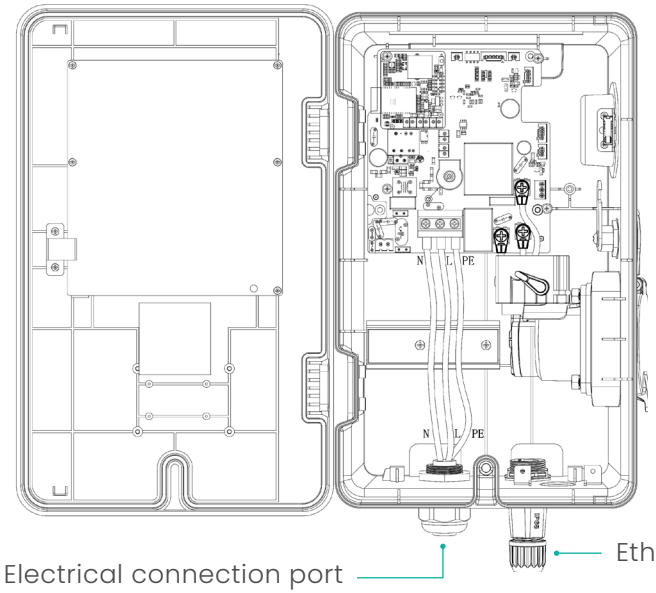


4. Install power input cables as required.

5. Close and lock the front door of the charger with the key supplied.

7.2 Electrical wiring

7.2.1 Overview of internal structure



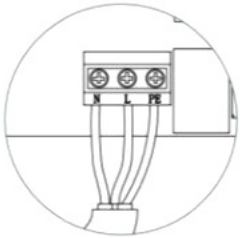
7.2.2 Wiring and CT clamp connection

a. Power cable

1. Remove a length of 40mm of the cable jacket and strip the wire insulation to a length of 8~15mm.

2. Crimp the terminals with wire ferrules as shov the figure below.

Single-phase wiring



Single-phase connection

3. Distinguish PE, N, L, then insert the wire into the corresponding wire slot. Please ensure that the line and neutral cable are installed properly without overbend. Overbent cables may loosen the connection over time and result in a critical fault.

c. CT clamp connection (optional)

- Connect the CT connector to the CT port as shown in Fig 1.
- Connect the CT clamp to the same phase of the consumer unit where the charger is connected. Make sure this step is done only after the CT connector is connected to charger to prevent electrical hazards.
- Ensure that the CT clamp is connected tightly with the correct polarity, both in the charger and distribution unit. Please check the images below.

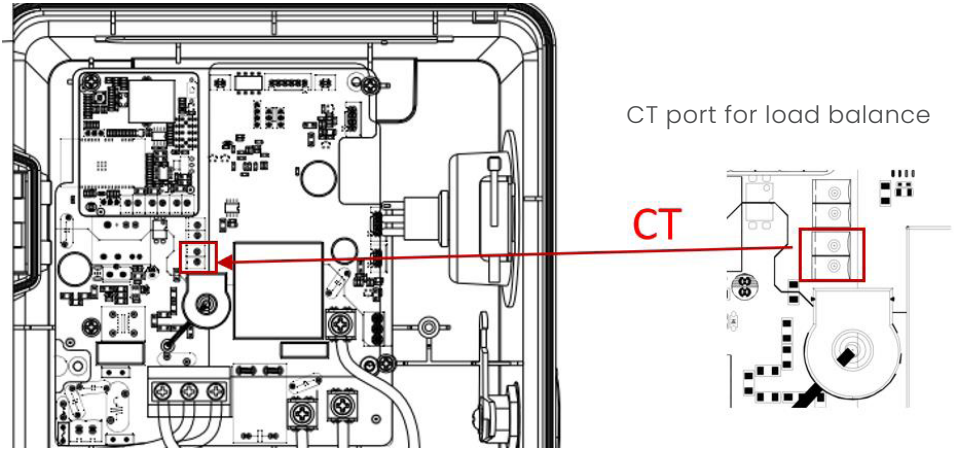


Figure 1

Figure 2

Figure 3

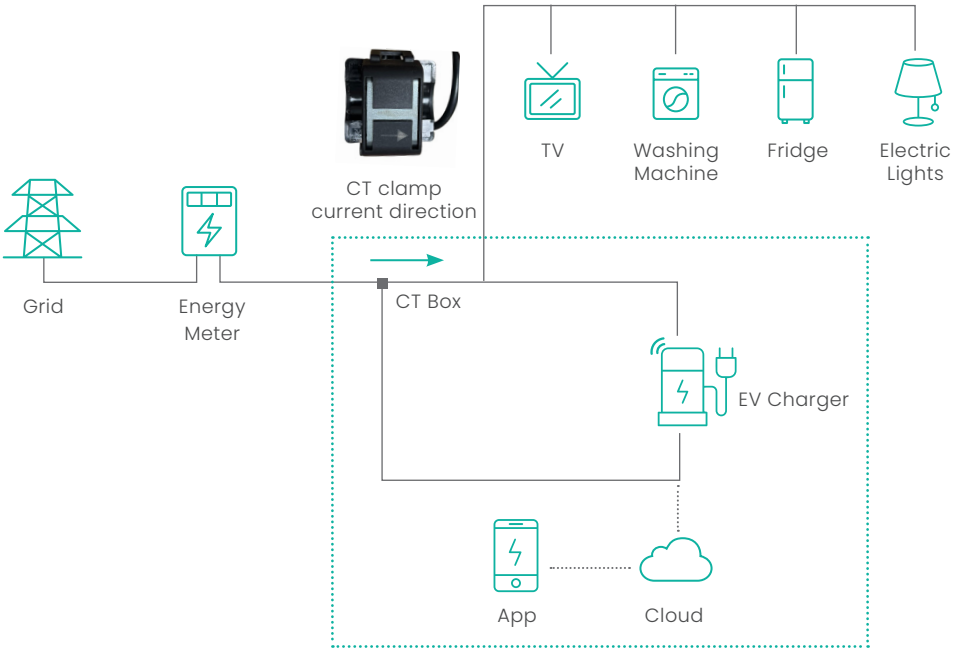


Fig.4 CT clamp connection diagram

8 POWER-ON SAFETY CHECKS

8.1 Power-on safety checks and network configuration

8.1.1 Checks before power-on

Please check / re-check the following items prior to the initial Power-On:

- The charger's location allows for good operational access to its normal use, repair, and maintenance.
- The AC input components within the power supply at the installation location are fitted correctly with the required electrical and mechanical protection components prior to installation of the charger.
- Ensure that there is no visible damage to the electrical cable and the unit.
- Confirm the charger is installed correctly, as per the instructions in this manual.

8.1.2 Power-on status

When powering on the charger, the LED indicator should be in standby state.

STATE	DESCRIPTION	LED STATUS
Ready to charge/ standby	Standby or charge gun plugged into vehicle, charging not yet started	Constant yellow
Charging in progress	Charge gun plugged into vehicle and charging in progress	Pulsing green, at 1 second intervals
Fault has occurred	An error condition has occurred. See Section 14 (Troubleshooting) for details of error conditions	Flashing red or constantly red

9 INSTALLATION TESTS AND CONFIGURATIONS

9.1 Charger Access Point (AP) page configuration

This configuration applies for a single charger with residential load.

This balances energy use and adjusts the charging output to your electric vehicle in response to changes in electricity load.

Step 1: Airplane mode

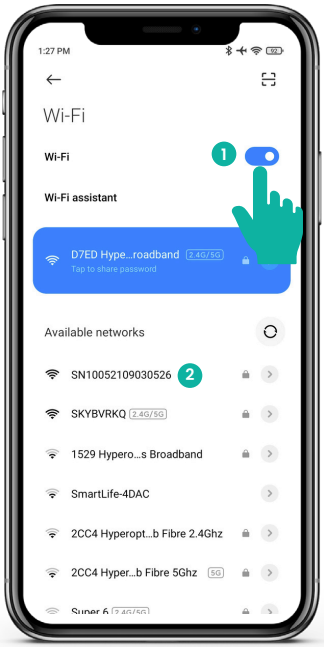
Please switch your smartphone to airplane mode.

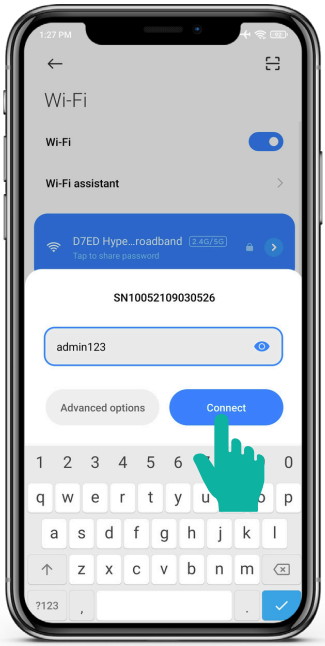
Step 2: Power reboot

- Restart the power of the charger and ensure the indicator light stops flashing and shows a constant yellow light.
- Please note that network configuration setting is only accessible 15 minutes after the power reboot.

Step 3: Charger Wi-Fi

- Turn on your smartphone Wi-Fi.
- Select the Wi-Fi hotspot that contains your charger's serial number (beginning with SN100...).



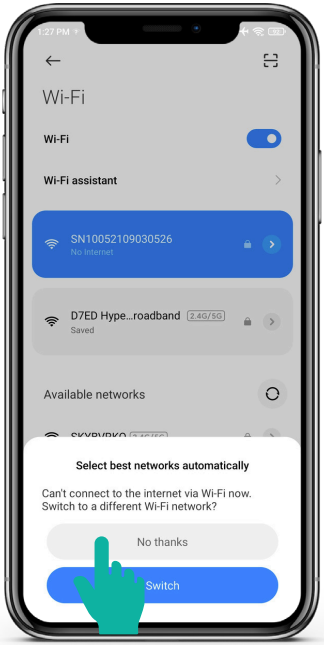


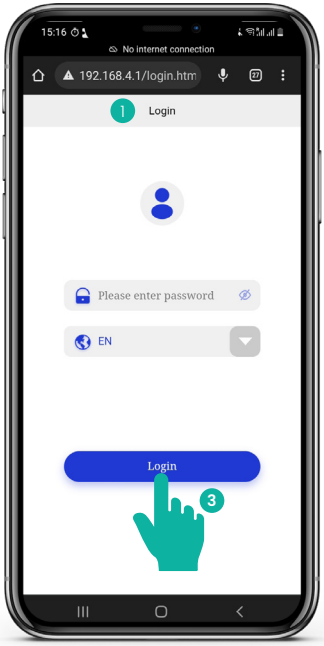
Step 4: Input charger Wi-Fi password

- Input "admin123" as the password.
- Select 'Connect'.

Step 5: Automatic network switch

Select “No Thanks” when the pop-up Wi-Fi network message appears. The smartphone can communicate with the charger without internet connection.





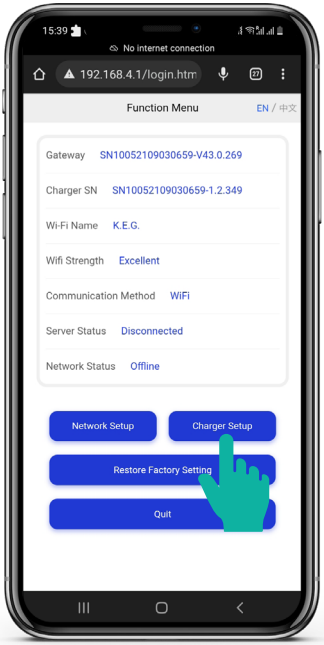
Step 6: Login credentials

- Enter the numbers 192.168.4.1 into your web browser.
- Input the four digit network pin from the side of the charger.
- Select ‘Login’.

9.2 RCD test setup (recommended step)

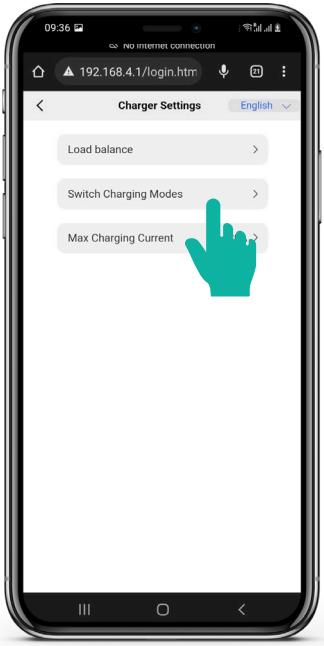
Testing the RCD can ensure that it is working properly and will provide shock protection in case of an electric fault.

This test should only be carried out by a qualified technician.



Step 1: Charger AP page login

- Refer to 9.1 (Steps 1-6).
- Select ‘Charger Setup’.



Step 2: Selecting the charging modes

Select ‘Switch Charging Modes’.

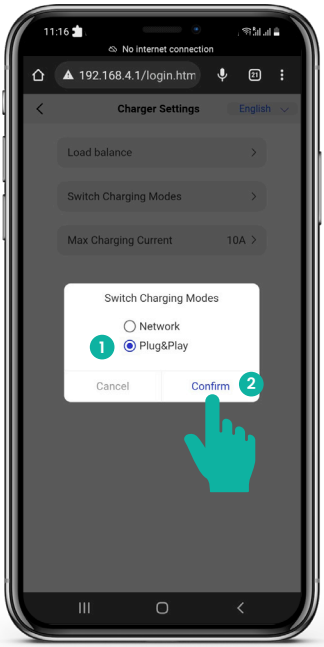
Step 3: Plug & Play mode option

This mode enables the user to charge the vehicle without any authorisation.

The vehicle charges immediately after the charger is plugged into the vehicle.

- Select ‘Plug & Play’ mode.
- Confirm.
- The charger will reboot after switching the modes.

Plug & Play mode should be used for RCD testing and should only be carried out by a qualified technician.



After completing all the test steps (Steps 1-5), please change it to ‘Network’ mode.

Step 4: Test setup

- Connect the EVSE adapter to the charger.
- Connect the installation tester 3-pin plug into the EVSE adapter.
- An installation tester can be used to test the RCD of the charger by changing the load.
- Change the CP state of the EVSE adapter from ‘A’ to ‘C’ to start charging.
- Test the RCD is working with the installation tester by changing the load.

Step 5: EVSE adaptor setup

- The charger is off when CP state of the EVSE adaptor is in ‘A’ position.
- Change the CP state to ‘C’ to start charging.
- Change the CP state to ‘A’ to turn off charging.

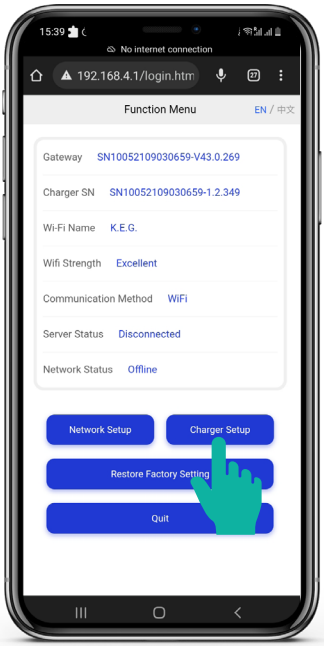
10

CHARGER CONFIGURATION AND MONTA APP SETUP

10.1 Network Configuration

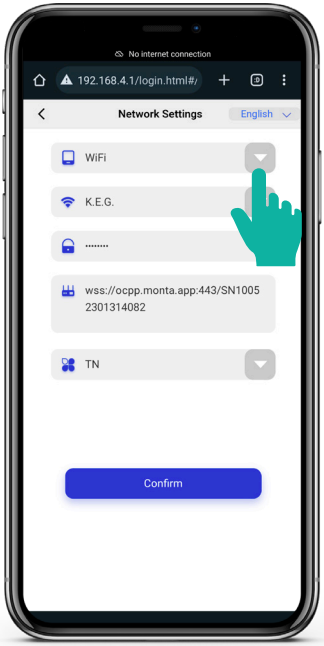
Step 1: Charger AP page login

Refer to 9.1 (Steps 1-6)



Step 2: Open charger setup

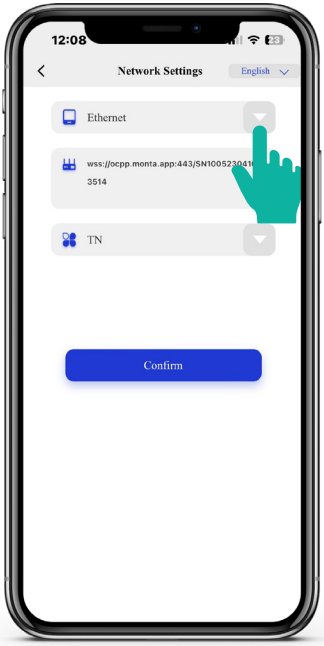
Select 'Charger Setup' menu to configure the charger mode.



Step 3: Select preferred network mode - Wi-Fi or Ethernet

a. Wi-Fi

- Select “Wi-Fi” on the network mode dropdown menu.
- Select ‘Confirm’.

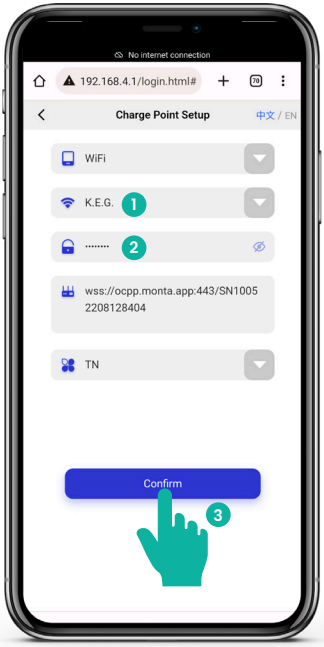


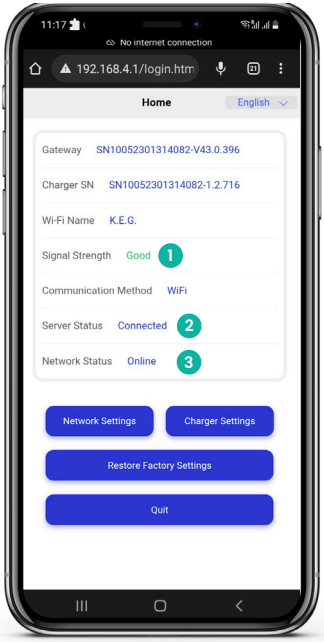
b. Ethernet

- Select “Ethernet’ on the network mode drop-down menu.
- Select ‘Confirm’
- Go to Step 5.

Step 4: Input Wi-Fi details

- Select the correct Wi-Fi network from the second drop-down menu.
- Input the Wi-Fi password.
- Select ‘Confirm’.
- A confirmation success message appears and the charger restarts.





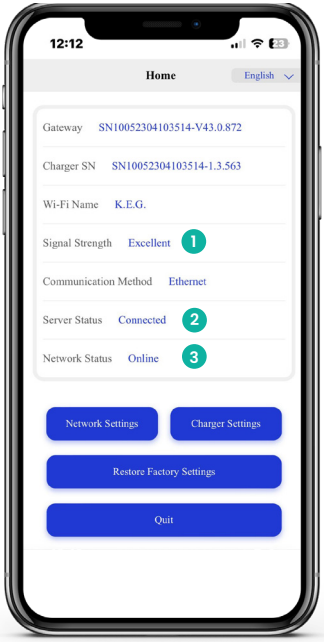
Step 5: Verifying network connectivity

a. Wi-Fi

- Verify that the Wi-Fi strength is either ‘Good ‘or ‘Excellent’.
- If the Wi-Fi strength is “Poor”, an alternative Wi-Fi network or Wi-Fi extender will need to be used.
- Verify that the Server Status is ‘Connected’.
- Verify that the Network Status is ‘Online’.

b. Ethernet

- Verify that the signal strength is either ‘Good ‘or ‘Excellent’.
- If the signal strength is ‘Poor’, please check the network speed and connection.
- Verify that the Server Status is ‘Connected’.
- Verify that the Network Status is ‘Online’.

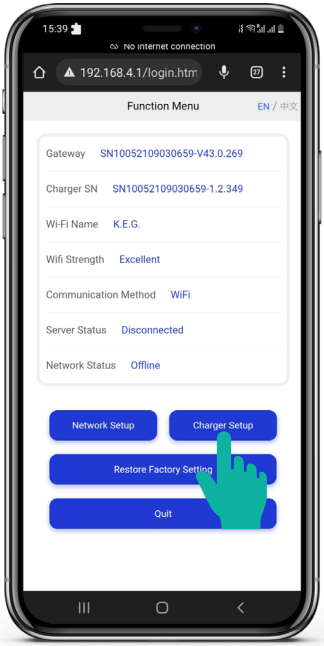


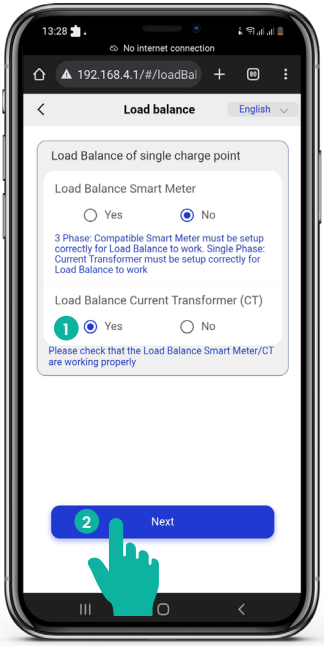
10.2 Load balance configuration (optional)

This configuration allows the charger to adjust the charging output to your electric vehicle in response to changes in electricity load, thus balancing the energy use.

Step 1: Charger settings

- Login to the charger Wi-Fi with the unique password from the side of the charger.
- Select ‘Charger Setup’.



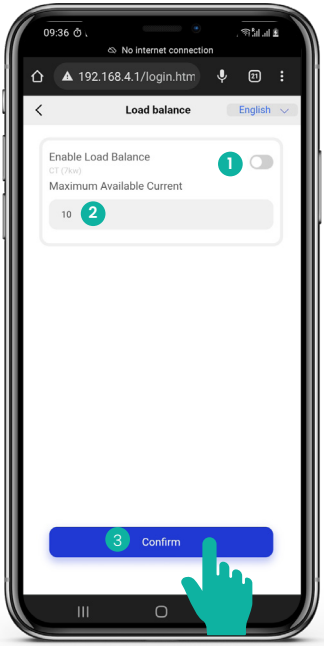


Step 2: Load balance current transformer (CT)

- Select ‘Yes’ on the Load Balance Current Transformer option.
- Select ‘Next’.

Step 3: Enabling/Disabling load balance

- Toggle ON the 'Enable Load Balance' for activation of dynamic load balancing for the home/site.
- Input the maximum consumer load current capacity.
- Select 'Confirm'.

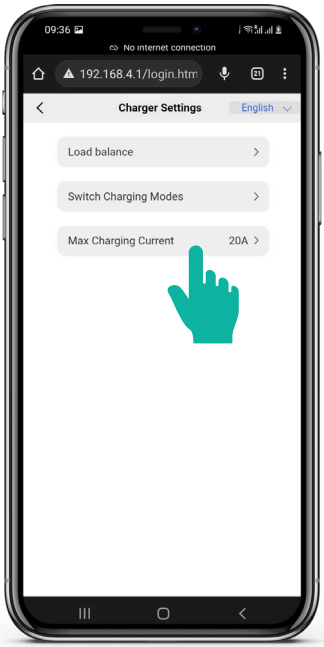


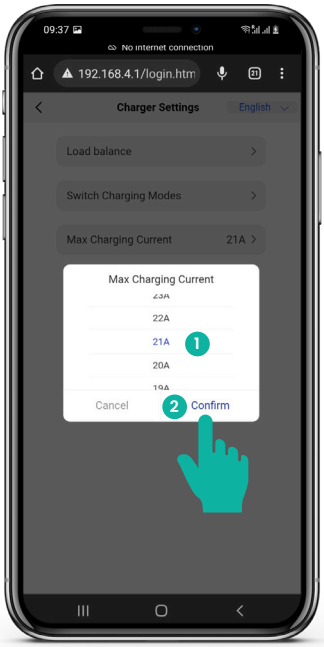
10.3 Maximum charging current setting (optional)

This allows selection of the maximum current available to charge the vehicle, depending on the house load requirement and fuse rating.

Step 1: Input the max charging current details

- After logging into the charger AP page select ‘Charger setup’.
- Select ‘Max Charging Current’.





Step 2: Select the max charging current

- Scroll up/down to select the required current.
- Select ‘Confirm’.
- After 5 seconds reboot the charger manually.

10.4 Monta app setup

The Monta App needs to be installed by both the installer and the end user so the installer can transfer the integrated charger to the end user account after all testing.

Step 1: Downloading the Monta app

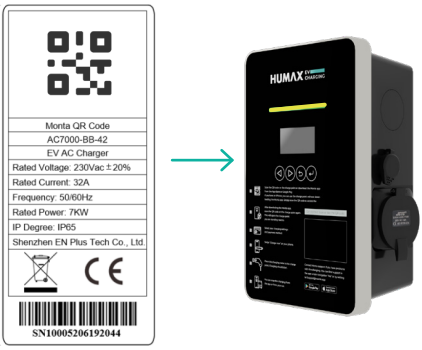
Scan the QR code to the right and follow the link or search for 'Monta EV Charging' on AppStore or Google Play.

Download on the App Store

GET IT ON Google Play

Step 2: Scan The QR on your charger

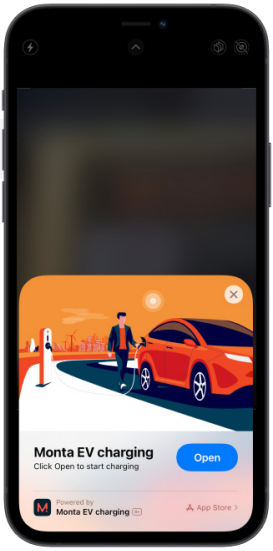
After downloading the app, scan the Monta QR code on the side of your HUMAX EV charger using your QR scanner or Google Play.

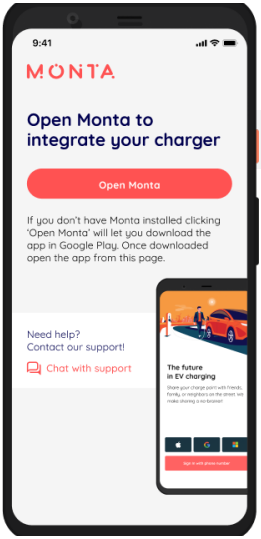


Step 3: Open the Monta app

Follow the link to open the app.

Android

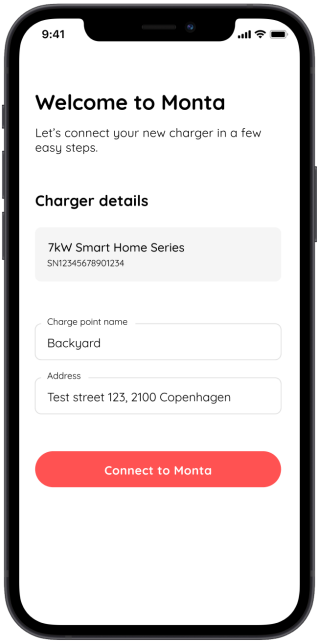




iOS

Step 4: Create your Monta account

Create your account using your phone number or social logins (Apple/Google/ Microsoft).

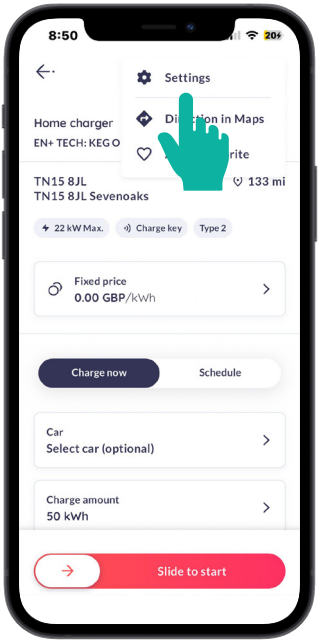


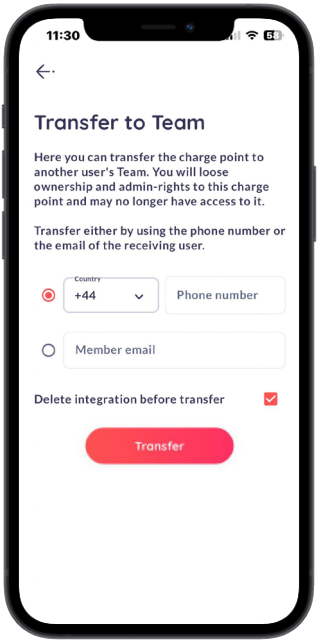
Step 5: Add charger details

Follow the last few steps on the Monta app to complete the Integration with Monta.

Step 6: Transfer the charger to the end user Monta account

- Open charger 'Settings'
- Select 'Transfer Charger'
- Provide the end user details and select 'Transfer'.





Step 7: Install Monta QR code sticker (if required)

Configure the Monta sticker in the contents package according to the steps on the Monta webpage below.

https://monta.com/uk/help-center/pair-monta-sticker/

END USER GUIDE

11

MONTA APP CONFIGURATIONS

Kindly scan the QR code to explore the latest features offered by Monta.

11.1 Charging using the Monta app

1. Plug the charge gun into the vehicle.
2. Once plugged in, please ensure that the charge gun is connected correctly and securely.
3. When the connection is correctly set up, the charger's LED indicator will show constant yellow, which shows that the charger is ready for charging.
4. Start the charging session through Monta app
5. When the charging session has started, the LED indicator will show a pulsing green pattern.

11.1.1 Charging options explained (See p 39-42 for setup details)

(i) AutoStart

EV charging is made as simple as possible via Monta's AutoStart feature. Plug in your EV cable to start charging straight away and simply stop the charging process from the vehicle. This means EV charging apps and RFID cards no longer needs to be used to charge/connect.

(ii) SmartCharge

SmartCharge is a Monta feature that charges your vehicle at the most cost-effective times to help you avoid peak demand charges and high electricity rates.

SmartCharge schedules charging based on local electricity rates, tariffs, and low CO2 emissions timeframe. It prioritizes affordable, low-carbon, and renewable energy sources.

(iii) Auto SmartCharge

This is a subdivision of the smart charge feature that enables the user to schedule smart charging automatically whenever charging through the app.

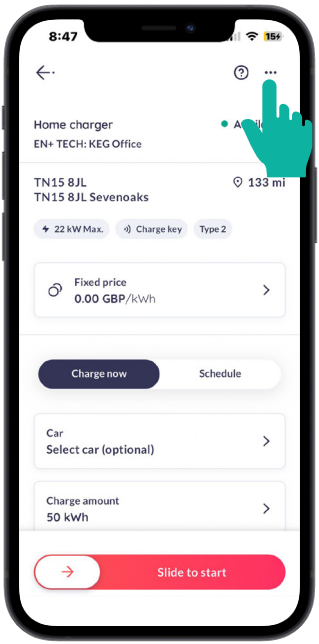
(iv) Off-peak charging

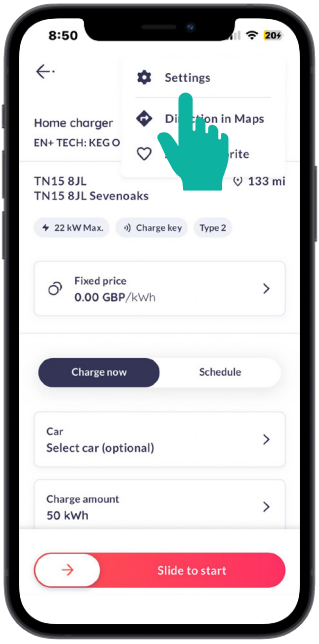
To control the amount of electricity used during peak hours, the UK government implemented off-peak charging with the implementation of smart charge point regulation. Off-peak charging only allows the user to charge the vehicle during off-peak hours. The chargers will not be able to operate from 8am to 11am and 4pm to 10pm which are considered as the peak hours during weekdays.

To charge your vehicle at peak times, disable this feature in the Monta app which is explained further below.

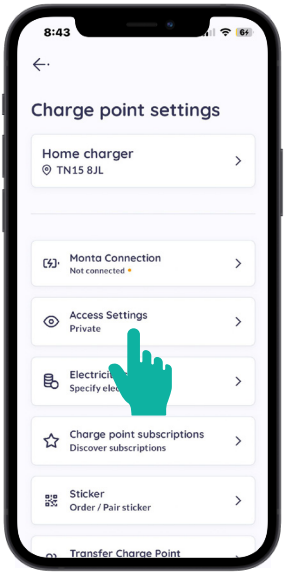
11.1.2 To set up the charging options

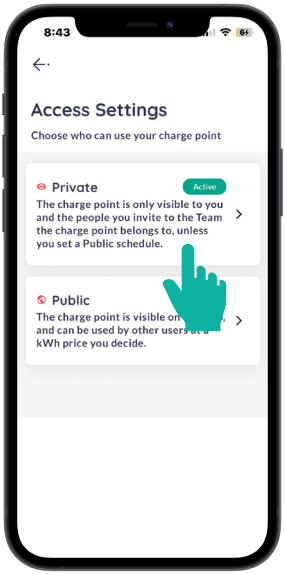
a. Select the charger in the Monta app and go to Settings.

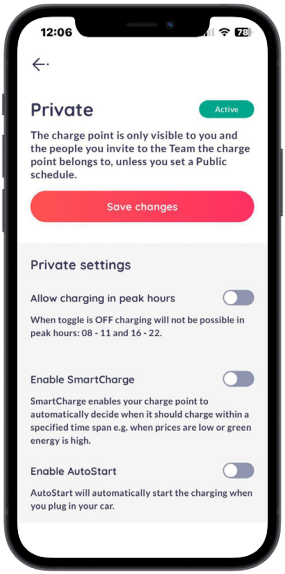


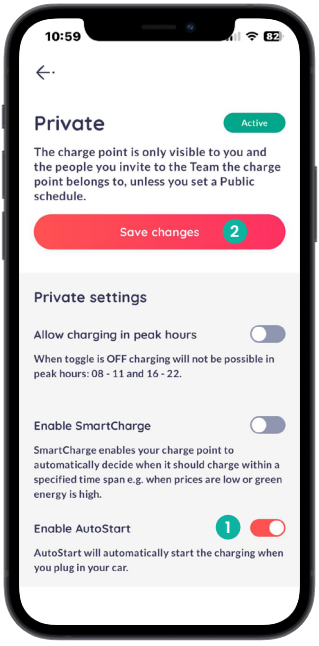


b. Select ‘Access Settings’ and then select ‘Private’.



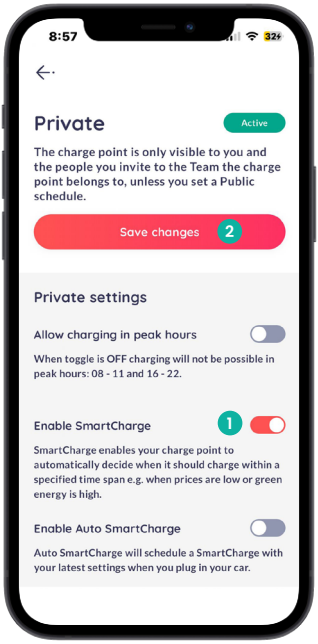


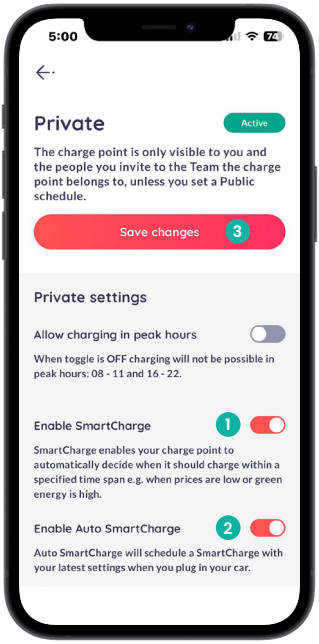




c. To enable **AutoStart**, please follow the instructions in the image to the left.

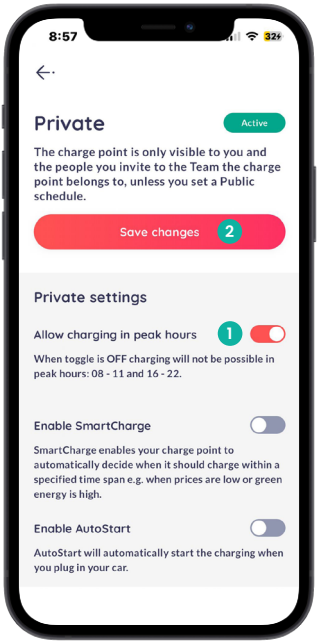
d. To enable **SmartCharge**, please follow the instructions in the image to the right.





e. To enable **Auto SmartCharge**, please follow the instructions in the image to the left.

f. To enable **Off-peak charging**, please follow the instructions in the image to the right.



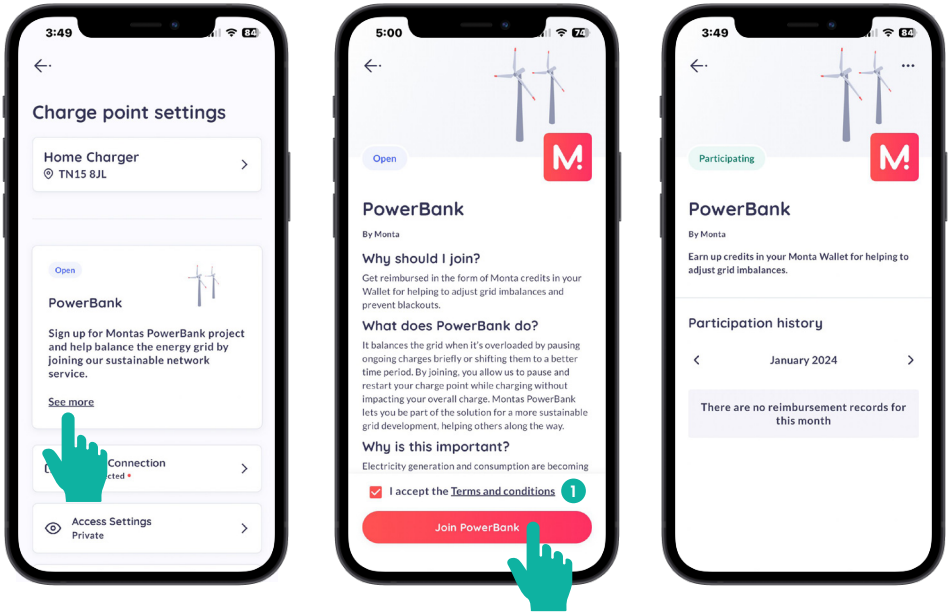
(v) Powerbank

PowerBank is a Monta app feature that connects different home chargers to the electrical grid system. Through PowerBank, Monta briefly pauses and resumes charging activities when detecting a grid imbalance.

The imbalance is caused by excess energy consumption or insufficient power supplies, making the grid overworked which can lead to blackouts and other problems that negatively affect our lives. To help stabilise the grid, Monta briefly pauses and then resumes charging activities based on how heavy the electrical grid imbalance is at any given moment.

Every time you charge via Monta, you will receive participation Monta credits.

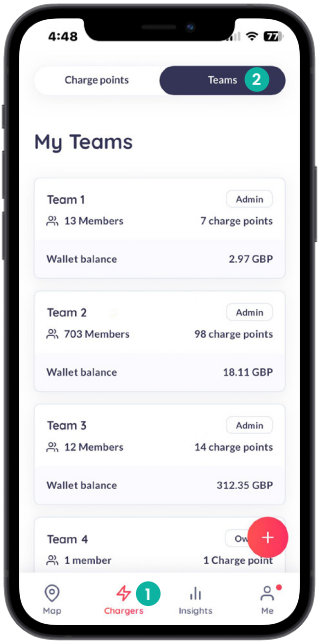
1. Locate the charger in the app and select the settings wheel.
2. Select the PowerBank tab.
3. Select 'Join Powerbank' after reviewing the terms and conditions.
4. Once joined, you can see the participation credits you have earned by charging!
5. You can also see the PowerBank credits in the Monta Wallet.

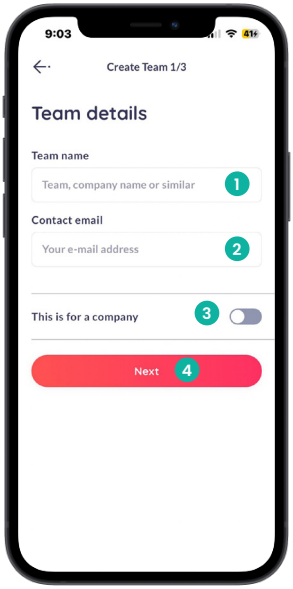


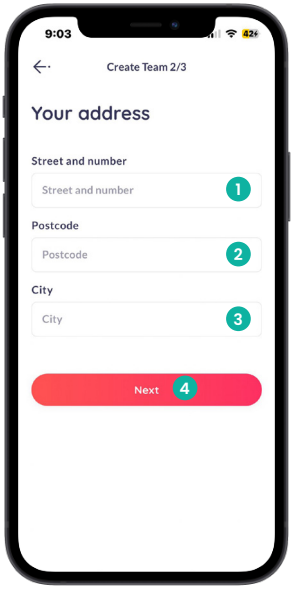
(vi) Multiple user charging

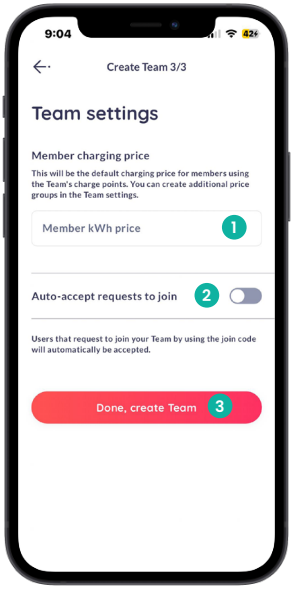
Multiple users can be added to the team feature in Monta to give access to one or more chargers. This will enable the user to share the charger in a family or group.

1. Select 'Chargers > Teams' in the Monta app.
2. Follow the images below to complete the steps.

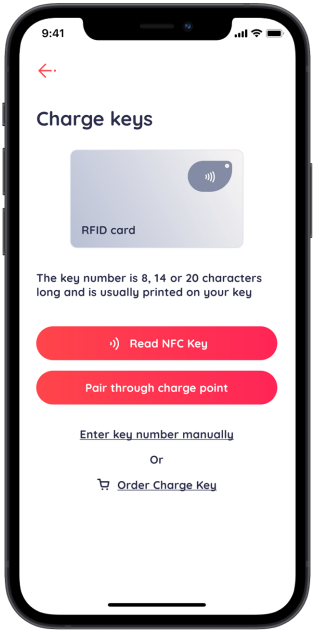




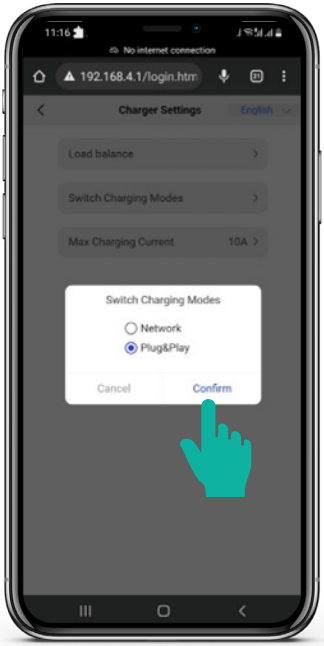




11.2 Charging using RFID card



1. Register the 8-digit alphanumeric code on the RFID card to the Monta Charge key setting.
2. Once registered as Monta Charge Key, the RFID card can be used to authorize a charging session even when the device is offline.
3. Plug the charging gun into the EV charger.
4. Ensuring that the charge gun is connected correctly and securely, the charger's LED indicator will be solid yellow which shows that the charger is ready for charging.
5. Hold the RFID card to the front of the charger for 3 to 5 seconds.
6. When the charging session has started, the LED indicator will show a pulsing green pattern.
7. Hold the RFID card again to the front to stop the charge.



11.3 Plug & Play mode

This mode enables the user to charge the vehicleoffline. To enable this feature, follow the steps below.

1. Select Plug & Play from the Switch charging modes.
2. Plug the gun into the vehicle socket and lock the vehicle.
3. The vehicle will start charging.
4. To stop the charge, unlock the vehicle or stop charging from the vehicle's screen.
5. Unplug the charger gun when the vehicle is no longer charging.

12 CHARGING OPERATION LED INDICATIONS

12.1 Charging using Monta app

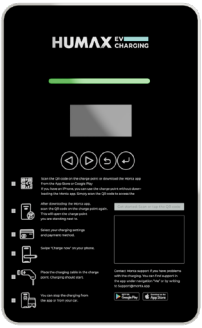
Standby

A yellow constant light indicates the charger is ready to use.

Plug-in

The constant yellow light remains.

Charging



A green indicator pulsing at 1-sec intervals indicates the charging is in progress.

12.2 Charging using Plug & Play

Standby

A yellow constant light indicates the charger is ready to use.

Plug-in

The constant yellow light remains.

Charging

A green indicator pulsing at 1-sec intervals indicates the charging is in progress.

Fully Charged

Solid green light indicates the EV is fully charged.

Stop charging and unplug

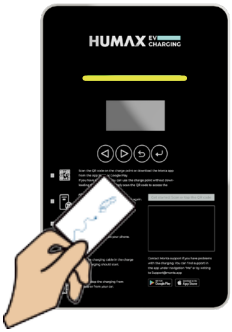
Returns to standby mode after the charging has finished.

12.3 Charging using RFID card

Plug-in

A yellow constant light indicates the charger is ready to use.

Use RFID Card



Use the RFID card in the designated reading area.

A yellow indicator flashing , then turning green confirms the RFID card is successfully read and charging has started.

13

UK EV SMART CHARGE POINT REGULATION

The UK government has introduced new rules and regulations around EV charging to ensure that consumers are protected and to tackle the rising electricity demand in the country.

The rules apply to the electric vehicle private charger which are sold for use in a domestic or workplace environment in Great Britain.

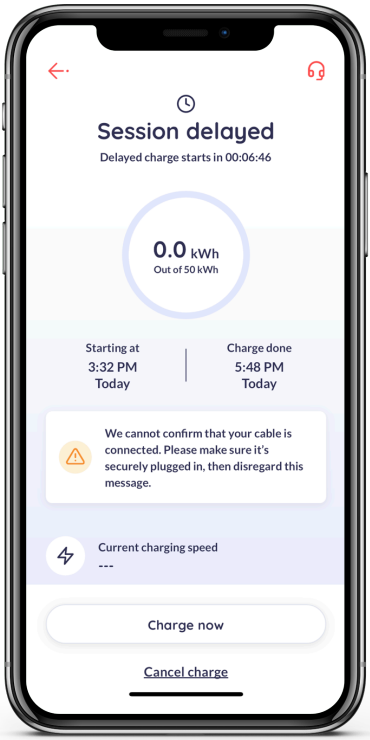
These measures were designed to help manage increasing electricity demand from the UK's transition to electric vehicles (EVs) and improve security protocols. The regulation details are as follows:

- Phase 1 of the UK government's Electric Vehicle (Smart Charge Points) Regulations 2021 came into force on 30 June 2022 and includes -
    - Randomised delay
    - Loss of communications network access
    - Default Charge settings
- On December 2022, Phase 2 of UK regulations came into effect now including built-in cyber security features -
    - Tamper boundary protection
    - Event logs for user privacy and data protection

Phase 1

13.1 Randomised delay

- The regulations have made it mandatory to add the feature of ‘Randomised delay’ to protect the stability of the national electricity system from high volumes of chargers switching on or off at the exact same time.
- Under this regulation, the start or stop of a charger will be subjected to a random delay of up to 600 seconds. The user may experience that the charging session will not start at the exact scheduled time and should take this into account when checking the charging status.
- The user can override this delay in the Monta app by selecting the “Switch to Charge now” right after the swipe to charge on each charging instances.



13.2 Loss of communications network access

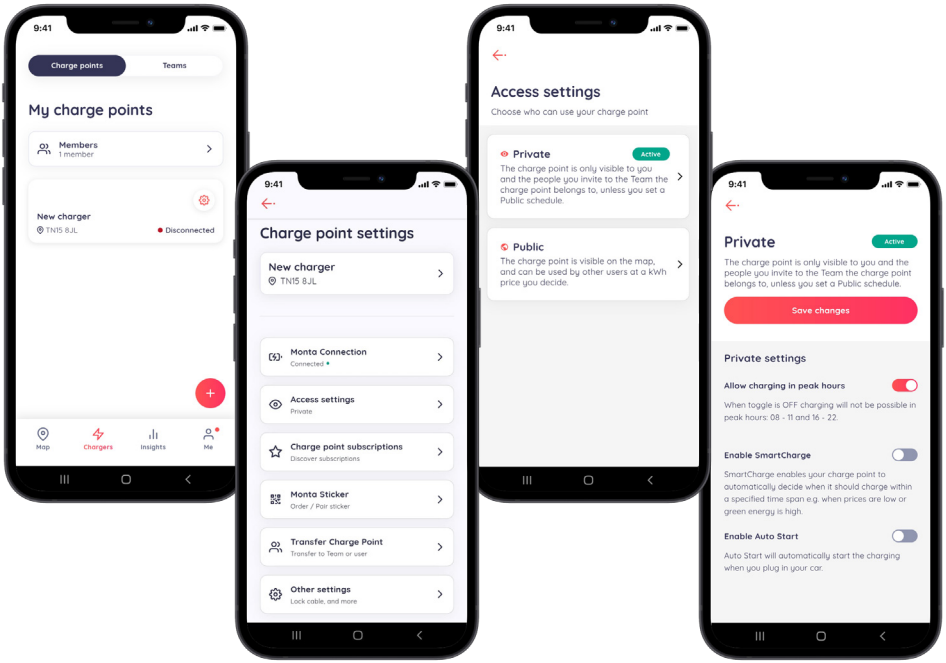
- Under the UK regulations, the charger should be configured to charge the vehicle even if it loses connection to the communication network. In that situation, the charger is offline.
- To improve the experience for users, the charger should support local authorization of identifiers.
- The registered RFID cards can be used to charge the vehicle even if the charger is offline. (Refer 5.2.2)

13.3 Default charge schedule

- With the introduction of smart charge point regulations, the UK government imposed an off-peak charging feature to manage the electricity demand during peak hours.
- Off-peak charging only allows the user to charge the vehicle during off-peak hours. The chargers will not be able to operate from 8am to 11am and 4pm to 10pm which are considered as the peak hours during weekdays.
- There is no peak hour during weekends.

To disable this feature and charge your vehicle at your convenience:

- Open the Monta app.
- Under the section 'Chargers', select on the settings icon on the charger.
- Select 'Access settings' and select "Private".
- Toggle on 'Allow charging in peak hours'.
- Select 'Save changes'.



Phase 2

13.4 Cyber security

On December 30th, 2022, Phase 2 of the UK Smart Charge Points Regulations—which includes several reinforced security measures to make owning and using an EV charger as secure as possible—went into effect .

The features that are important for the user to know are as follows:

- A "tamper-protection boundary" is included to secure the charger's internal components. The charger will quickly log any unauthorised attempts to access it internally and notify the registered owner.
- The user's personal information can be deleted from the Monta app by calling Monta customer support.
- The charger firmware updates will be provided for 3 years from the date of purchase.

The following measures are recommended for charger security:

- Remove the charger network pin sticker from the charger and keep it safe.
- The charger Access Point page is only open for 15 minutes, after which the page is inaccessible as a security precaution.
- Contact the Monta support immediately if the charger sends critical security event notification in the app.
- If the user receives notification from the app to upgrade, ensure upgrade is installed.
- The RFID cards should be kept secure.
- Ensure the Monta account has a strong password.

14 TROUBLESHOOTING

14.1 Indicator status

STATE	DESCRIPTION	LED STATUS
In standby	Normal	Constant yellow
Charging status	Normal	Pulsing green, 1 second on, 1 second off
Plugged gun state	Normal	Constant yellow
Software upgrade	Normal	Fast flashing green light
Ground warning	Normal	Fast flashing yellow light
Relay fault	Fault	Red light normally on
Input polarity reverse	Fault	Flashing red, 500ms on, 500ms off, 1 time, 3S off, Cycle
CP fault	Fault	Flashing red, 500ms on, 500ms off, 2 times, 3S off, Cycle
Leakage current	Fault	Flashing red, 500ms on, 500ms off, 2 times, 3S off, Cycle
Input terminal overtemperature	Fault	Flashing red, 500ms on, 500ms off, 4 times, 3S off, Cycle
Relay overtemperature	Fault	Flashing red, 500ms on, 500ms off, 5 times, 3S off, Cycle
Under voltage fault	Fault	Flashing red, 500ms on, 500ms off, 6 times, 3S off, Cycle
Over voltage fault	Fault	Flashing red, 500ms on, 500ms off, 7 times, 3S off, Cycle
Overload fault	Fault	Flashing red, 500ms on, 500ms off, 8 times, 3S off, Cycle
Over frequency fault	Fault	Flashing red, 500ms on, 500ms off, 9 times, 3S off, Cycle
Under frequency fault	Fault	Flashing red, 500ms on, 500ms off, 10 times, 3S off, Cycle
Leakage current loop abnormal	Fault	Flashing red, 500ms on, 500ms off, 11 times, 3S off, Cycle
Incorrect load balance activation/connection	Fault	Flashing red, 500ms on, 500ms off, 11 times, 3S off, Cycle

14.2 Fault code and resolution

PROBLEMS	POSSIBLE CAUSES	SOLUTIONS	AUTOMATED RECOVERY
Overvoltage	AC input voltage is too high	1. Check the charger input voltage. 2. If the voltage is over 253Vac for a short time, please wait until the power grid recovers to the normal voltage range.	The charger immediately recovers once the input voltage is within range.
Undervoltage	AC input voltage is too low	1. Check the charger input voltage. 2. If the voltage is under 207Vac for a short time, please wait until the power grid recovers to the normal voltage range.	The charger immediately recovers once the input voltage is within range.
Overload/ Over-current	AC output current is too high	1. Shut off the breaker switch in the distribution/consumer unit immediately if it hasn't already. 2. Check whether there is low resistance path on the output cable and charging gun.	The charger recovers to normal state once the charging gun is plugged out from the vehicle.
Overfrequency	AC input frequency is too high	1. Check the input voltage frequency from the backend. 2. If the frequency exceeds 63Hz for a short time, wait till power grid recover to normal voltage range.	The charger immediately recovers once the electrical frequency is within range.
Underfrequency	AC input frequency is too low	1. Check the input voltage frequency from the backend. 2. If the frequency is lower than 47Hz for short time, wait till power grid recover to normal voltage range.	The charger immediately recovers once the electrical frequency is within range.
Input terminal overtemperature	Temperature inside the charger is too high	1. Check the surrounding conditions of chargers installed whether there is heat source nearby. Make sure surrounding temperature is under 60°C. 2. Please ensure the electrical cable and terminal integrity before powering the charger.	The charger recovers when the temperature is back to normal.
Leakage current	Leakage current to earth is too high	1. Shut off the breaker switch in the distribution/consumer unit immediately. 2. Shut off the breaker switch in the distribution/consumer unit immediately.	The charger recovers to normal state once the charging gun is plugged out from the vehicle.
Reversed input polarity	Reversed connection of L/N input cable	1. Shut off the breaker switch in the distribution/consumer unit immediately. 2. Check if AC input/output cables are connected in the correct polarity and rectify accordingly.	The charger immediately recovers once the input terminal is connected in the correct polarity.
Faulty Leakage Current Monitoring System	Connection issue on the leakage detection current transformer	3. Please check the port connection of the current transformer clamped to the outgoing line and neutral cable.	The charger recovers when the connection of leakage detection current transformer is resolved.
Ground Warning	Loose connection on incoming CPC cable or unstable incoming voltage	1. Please tighten the incoming CPC/ grounding cable inside the charger. 2. If tightening does not resolve the issue, please wait until the incoming voltage stabilize.	The charger immediately recovers once grounding cable is tightened and the voltage is stable.

Note: If the problem persists, please contact support@enplus.uk

15 MAINTENANCE

NO.	ITEM	OPERATING PROCESS
1	Charger components	Use a dry non-static cloth to clean the charger surface. If there is any damage on the vehicle connector, charging cable, or vehicle connector holder, please contact customer service immediately.
2	Charger casing	Do not hit or press hard on the case. If the case is damaged, please contact customer service.
3	Moisture and water notice	If you notice any water or moisture inside the charger, it is important to immediately turn off the electricity supply to prevent any potential danger. Before using the station again, contact a qualified electrician.
4	Flammable substance	It is important to ensure that the charger is kept away from hazardous materials, such as flammable gases and corrosive substances.

16 SECURITY EVENTS AND CUSTOMER SUPPORT

16.1 Security events

NOTIFICATION	FUNCTION
Firmware updated	The Charger firmware is updated
Startup of the device	The Charger has booted
Reset or reboot	The Charger was rebooted or reset
Security log was cleared	The security log was cleared
Memory exhaustion	The Flash or RAM memory of the Charger is getting full
Tamper detection activated	The physical tamper detection sensor was triggered

16.2 Monta support

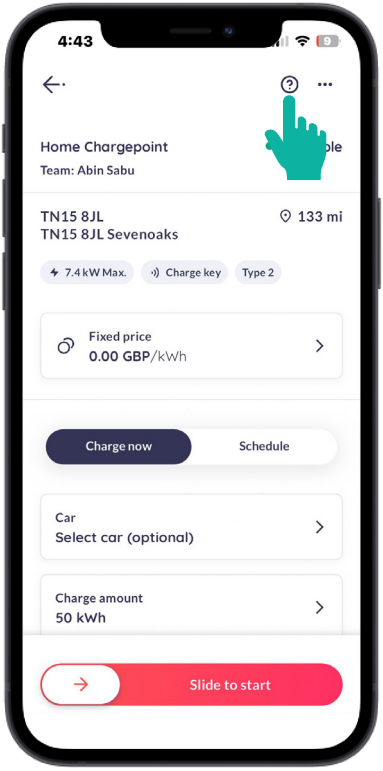
Visit https://monta.com/uk/support/ to learn how to use Monta, fix a problem, and get answers to your questions.

Visit https://monta.com/uk/help-center/ for further information.

Chat with or call support is available in the Monta app under “My Profile” for queries and any difficulties working with the app.

To contact Monta support:

- Open Monta app
- Select the charger
- Select the icon in the image



16.3 Humax EV customer support

Need some assistance?
For additional support, contact our customer service team.

Telephone: 0344 318 8800

Operating Hours: Mon - Fri, 09:00AM - 5:30PM

Email Support: uk.support@humaxcharging.com

HUMAX EV CHARGING

Contact us

uk.support@humaxcharging.com / humaxcharging.com/uk

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