



**HUMAX** EV CHARGING

**MX7**

HOME EV CHARGER  
**QUICK MANUAL**

# Contents

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**CAUTION** *Only certified electricians should install the charger to comply with safety and regulatory standards, following these guidelines to ensure safety and compliance.*

**Certified Installation** | Install in accordance with local, regional and national regulations.

**Safe Practices** | Disconnect power before installation, keep tools away from live wiring, and consider surge protection in areas with unstable grids.

**Installation Location** | Install the charger in a well-ventilated area, away from direct sunlight, heat sources, or areas exposed to water.

*Output Derating Based on Ambient Temperature : The charger is designed to operate within an ambient temperature range of -30°C to +50°C. To avoid thermal stress, the charging output may be automatically derated when the ambient temperature exceeds +40°C, particularly in enclosed or high-temperature environments. For optimal performance, operate the charger in conditions below +40°C.*

**Grounding & Connections** | Ensure proper grounding and secure, correctly polarized terminal connections to prevent electric shock, fire, or damage.

**Secure Mounting** | Mount the charger firmly on a stable wall to avoid falling or damage from vibrations.

**Dedicated Circuit** | Use a dedicated circuit with sufficient capacity and undamaged, unmodified cables connected directly to the distribution board. Avoid extension cords or multi-plug adapters.

**No Modifications** | Do not disassemble, repair, or modify the charger. Contact a certified technician for issues to avoid damage or hazards.

**Firmware Verification** | Confirm the firmware is updated post-installation to enable Smart Charging features and UK regulatory compliance.

**Data & Connectivity** | When connected to the internet, the MX7 operates as an IoT device, sharing data with the HUMAX Cloud to monitor safety, security, and performance. This may include usage patterns, settings, and device identifiers, processed per our Privacy Policy and data protection laws. To opt out of data sharing, discontinue charger use. For more information, please refer to the HUMAX Privacy Policy.

# Installation Guide

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Preparation

Wall Mounting

External Protection

Power Cabling

Electrical Wiring

Current Limit Configuration

CT Clamp

Setting Option

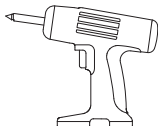
Connecting Charger

Network Configuration

## Tools required



Multimeter  
(AC/DC)



Electric  
Power Drill



Screwdriver  
(PH2 & PH3 & T30)



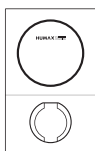
Diagonal  
Pliers



Insulated  
Torque Wrench

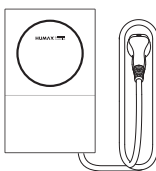
## Package Contents

### Socket Type



EV Charger  
1 EA

### Cable Type



EV Charger  
1 EA



Cable Holster  
1 EA



Holster Screw  
3 SET



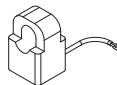
Wall Bracket  
1 EA



Installation Screw  
4 SET



Cable Gland  
1 EA



CT Clamp  
1 EA



CT Clamp Connector  
1 EA



RFID Card  
2 EA



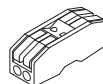
Bracket Screw  
2 EA



Door Screw  
2 EA



Ferrule Terminal  
3 EA



Extension Connector  
1 EA

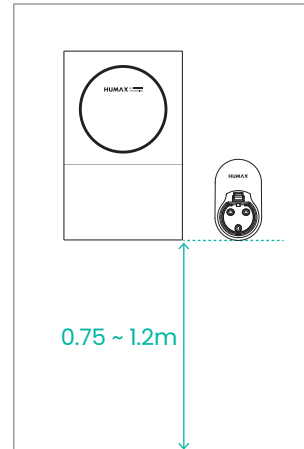
## STEP 1

**Verify installation environment**

Confirm the wall material is suitable.

: Concrete, lightweight concrete, hard or soft natural stone, masonry bricks or hollow blocks.

Do not install on gypsum board or MDF walls. Ensure the charger is installed so that the user access point (socket or cable holster) is between 0.75m and 1.2m above the floor.



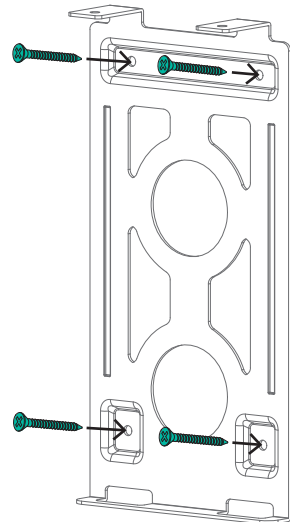
## STEP 2

**Mount the bracket**

Ensure that the bracket is mounted with the bent L-shaped edge facing upward.

Use a Ø8 drill bit to make holes at the 4 designated fixing points on the wall through the bracket, ensuring a minimum depth of 60mm.

Then, insert the installation anchor (6x30mm) into the drilled holes and fasten the screws.

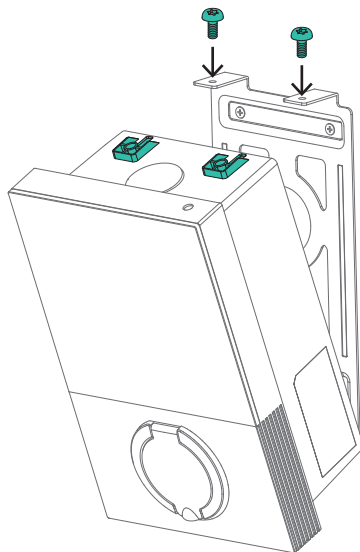


## STEP 3

**Secure the charger**

Hang the charger onto the groove of the wall-mounted bracket.

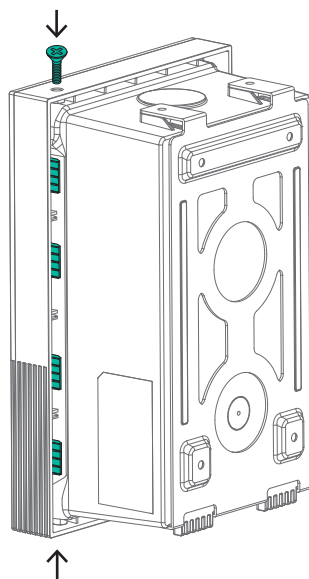
Firmly fasten it using the provided bracket screws (Hexalobular, M6x8mm, 1N·m). After assembly, shake the unit to confirm it is securely mounted with no looseness.



## STEP 4

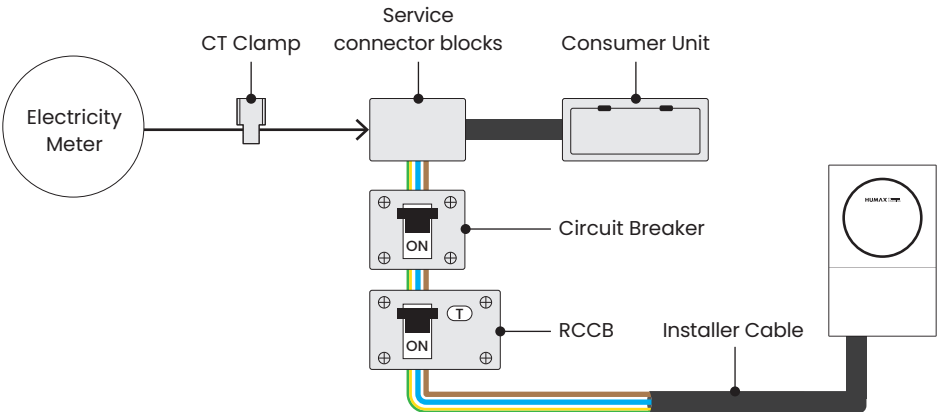
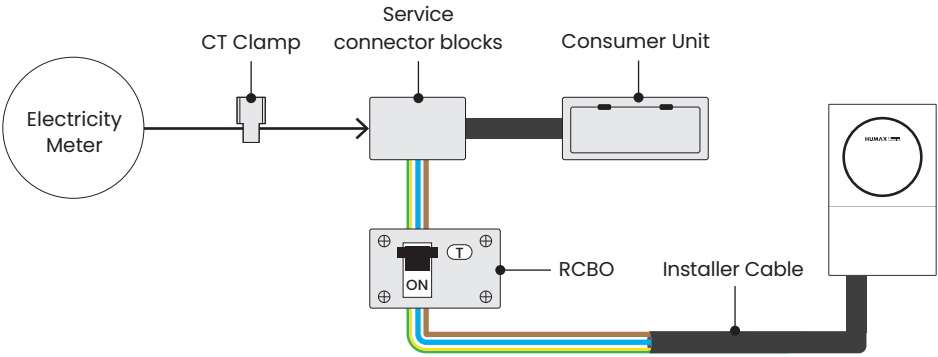
**Open the front cover**

First, release the 4 side hooks on the right side of the charger to open the front cover. After completing all the electrical wiring steps described in the following pages, fasten the screws (M4x8mm, 1N·m) at the top and bottom of the front cover to securely close the unit.



## STEP 5 | RCBO / RCCB installation

MX7 has integrated RDC-DD, protecting against hazardous DC residual currents over 6mA. Installation of a Type A double-pole RCBO or RCD with 30mA earth leakage protection is required to ensure complete protection from both DC and AC residual current as well as the overcurrent and short-circuit.



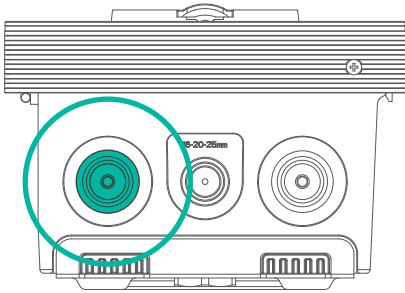


**STEP 6 | Choose your preferred installation method**

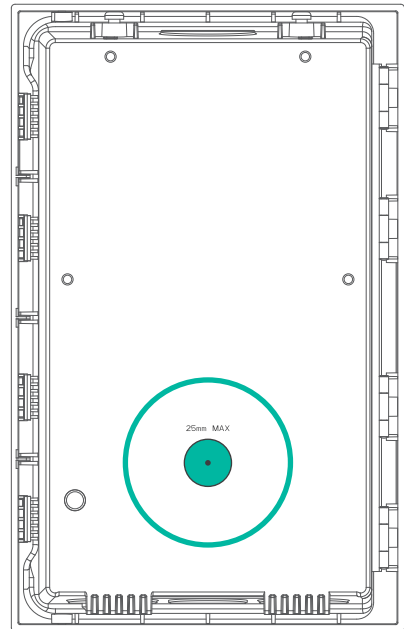
You can route the power cable from either the bottom or rear of the unit. This provides flexibility to match your home layout and installation style.

**Bottom entry**

Use the pre-installed rubber grommet or the cable gland provided in the accessory box. Go to page 10.

**Rear entry**

After separating the charger from the bracket, drill the marked circle (Ø25) on the rear panel, and then remove any burrs. Go to page 11.

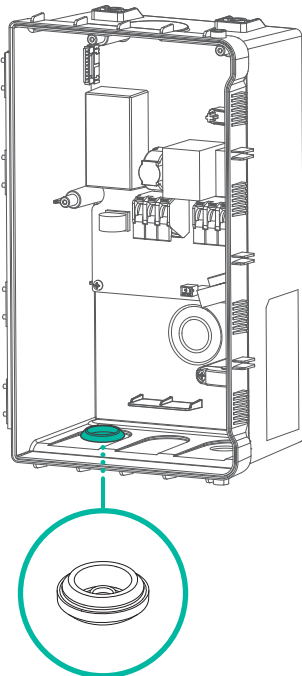


**STEP 6-1 | Bottom entry**

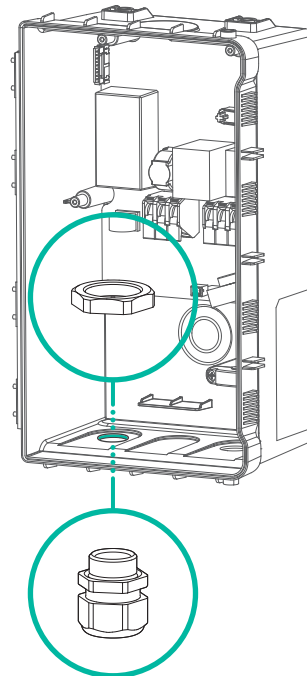
Follow the guide below to insert the power cable using either method. After connection, check for any gaps around the rubber grommet and securely tighten the gland nut.

**Rubber grommet**

Remove the pre-installed grommet center hole first. Then, insert the power cable through the grommet at the bottom left side of the unit.

**Rubber Grommet****Cable gland**

Remove the pre-installed rubber grommet, insert the bundled cable gland into the hole. Pass the power cable through, tighten the gland nut (5N·m).

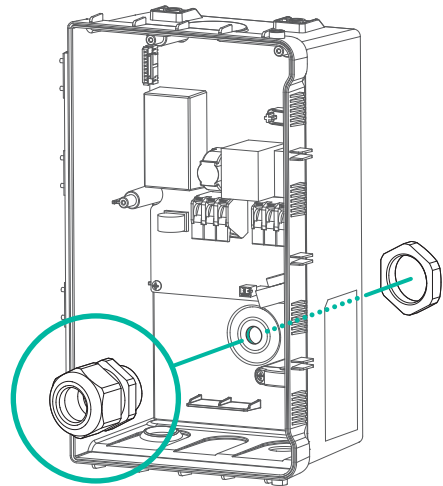
**Cable Gland**

**STEP 6-2 | Rear entry**

Follow the guide below to insert the power cable using the cable gland.

Insert the cable gland into the pre-drilled hole and route the power cable. Tighten the inner gland part securely, ensuring no interference with the terminals.

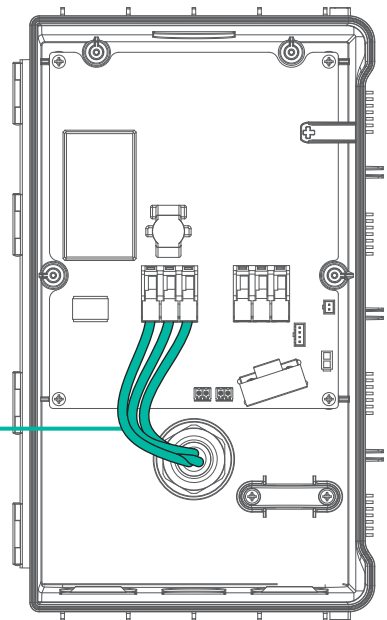
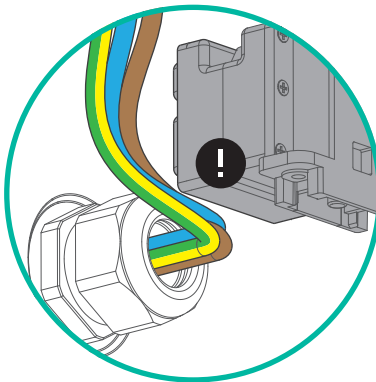
After completing, mount the charger onto the wall bracket.



Cable Gland

**CAUTION : SOCKET TYPE ONLY**

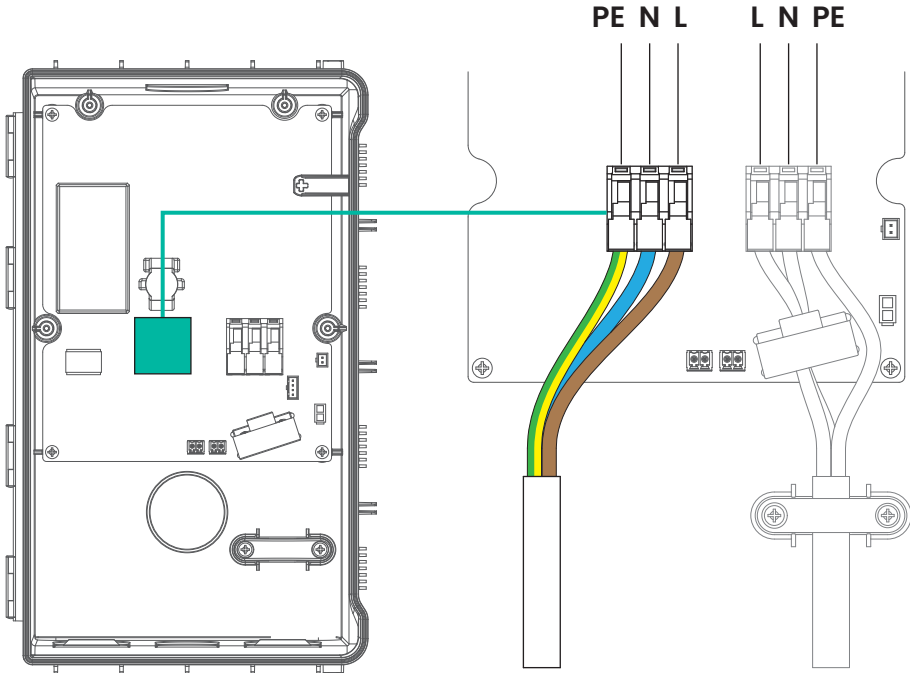
*Exercise caution when installing the rear cable gland. Internal terminals are close to the entry point and may cause interference.*



## STEP 7 | Connect the power cable

After routing the power cable, follow the wiring guide below. The wiring instructions are the same for both cable gland and rubber grommet installations. Strip each wire to expose 12mm of copper, and use provided ferrules for stranded wires to ensure a secure connection. Open the terminal block slots by lifting the levers, insert the wires as marked (L, N, PE), then lower and firmly press the levers to secure the cables in place.

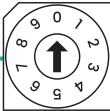
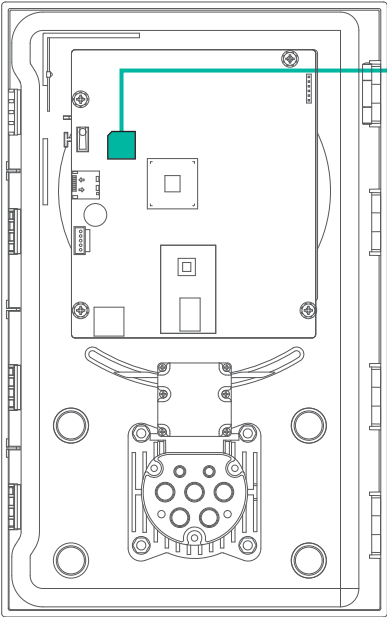
The charger is equipped with PEN fault protection and an automatic disconnection system, compliant with BS 7671:2018 Amendment 2:2022 (clause 722.411.4.1, 18th Edition IET Wiring Regulations).



STEP 8 | **Setting the maximum charging current (Rotary switch adjustment)**

The rotary switch limits the EV charger’s maximum output current to help prevent overloading the electrical infrastructure. It allows installers to set the current threshold at which load balancing will activate.

Locate the rotary switch inside the charger enclosure (refer to the layout diagram). Use a small flat-head screwdriver to turn the dial to the appropriate number according to the desired maximum current.



Position	Max. Current
0	32A
1	6A
2	9A
3	12A
4	15A
5	18A
6	21A
7	24A
8	27A
9	30A

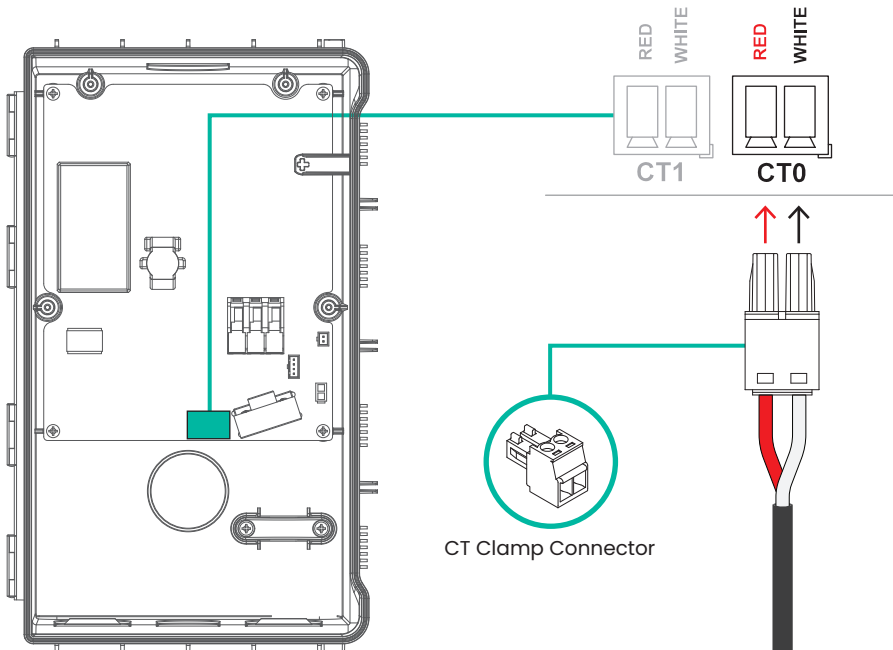
## STEP 9 | CT Clamp installation

**Connect the CT Clamp Cable** | Insert the CT clamp cable into the green 2-pin connector. Ensure that the red wire is connected to the left pin and the white wire to the right pin as shown in the illustration image.

**Secure the Connector** | Firmly press the connector into the CT0 port on the main board. Double-check that the connector is fully seated and matches the pin orientation.

**Wiring Note** | CT1 port of MX7 is reserved for future use.

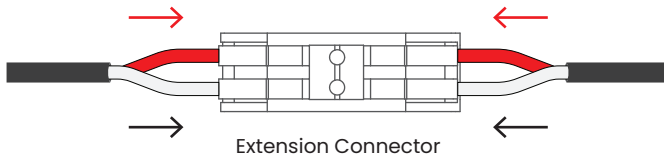
❗ *Ensure the power is OFF before connecting the CT clamp. Improper connection may result in incorrect current measurement or device malfunction.*



**STEP 10 | CT Clamp cable extension (optional)**

If extra cable length is required, use the CT clamp extension connector from the accessory box. Connect both cable ends as shown below.

- ❗ *Ensure the connector is firmly fastened and the wire polarity (red/white) is correct.*
- ❗ *Do not cut or splice the CT cable. Always use the designated extension connector for accuracy and safety.*

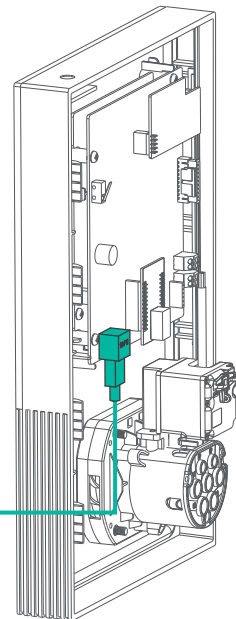
**STEP 11 | Connect Ethernet cable (optional)**

An internet connection is required for smart features such as remote monitoring and scheduling via the HumaxCharge app.

You can connect the charger using an Ethernet cable or Wi-Fi (802.11 b/g/n).

If the charger is installed far from your Wi-Fi router and the signal is weak, use an Ethernet cable or a Wi-Fi extender for a more stable connection.

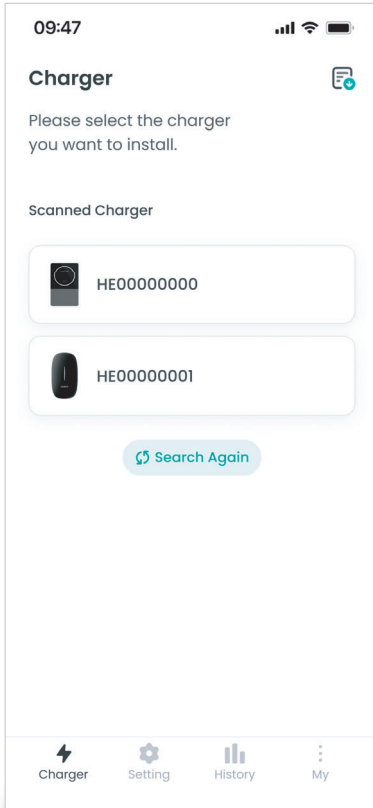
RJ45 Ethernet Port



STEP 1

**Start with Bluetooth pairing**

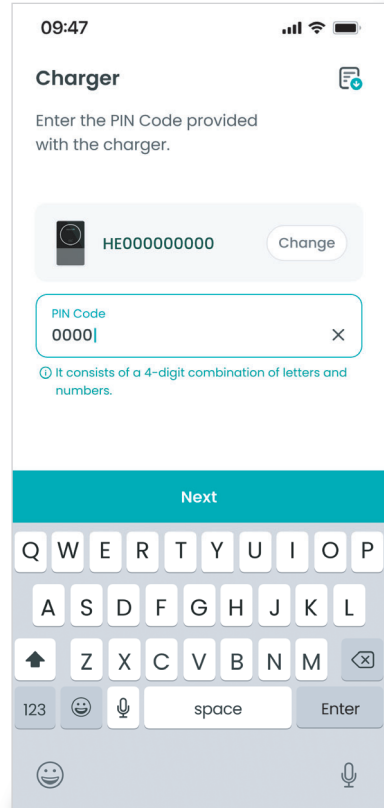
Make sure Bluetooth is enabled on your phone. Stay near the charger during installation for optimal connection. The app will scan the chargers around you. Choose the charger's serial number from the scanned list.



STEP 2

**Enter the PIN code**

Please enter the 4-digit PIN code located on the sticker on the back of this manual. Keep this code safe – it might be required for future access.





## STEP 3

**Configure your network**

Tap "Setting" to enter network configuration. Enter correct Wi-Fi details to ensure setup. Ensure the OCPP URL is displayed correctly. Default OCPP URL should be used without modification in most cases.

Connecting to the server may take up to 5 minutes.

09:47

Network

Network Load Balancing LED RFID

Use in Offline Mode

Connection type

Wi-Fi

Only 2.4GHz Wi-Fi is supported.

Wi-Fi information (SSID)

Charging Test Wi-Fi

Wi-Fi Name

Wi-Fi Password

Apply and Next



*If the OCPP URL does not appear, please reconnect via BLE, or manually enter the OCPP URL as shown below.*

OCPP URL

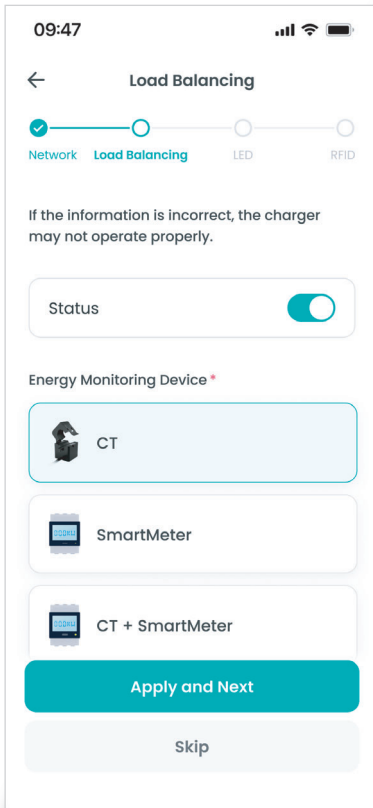
wss://uhc2-server.humaxcharging.com:443

Apply and Next

STEP 4

### Configure load balancing

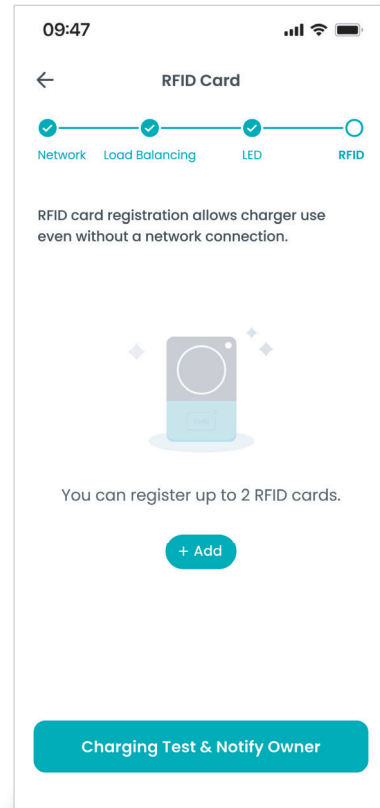
Register the energy monitoring device and set the current limit for your house for the dynamic load balancing. For the safety, it is recommended to set the current limit 10A lower than the physical RCBO/RCCB's rating current.



STEP 5

### Register RFID cards

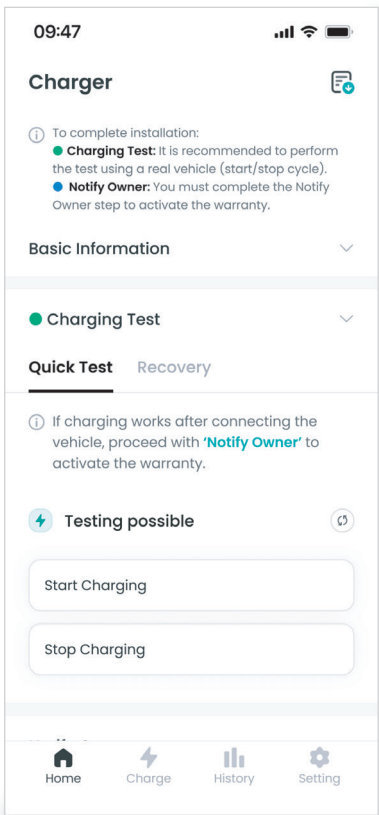
Register the RFID cards enclosed with the charger by scanning the barcode or entering the card number manually. Once registered, the cards can also be used to start charging in offline mode.



STEP 6

Test the charger

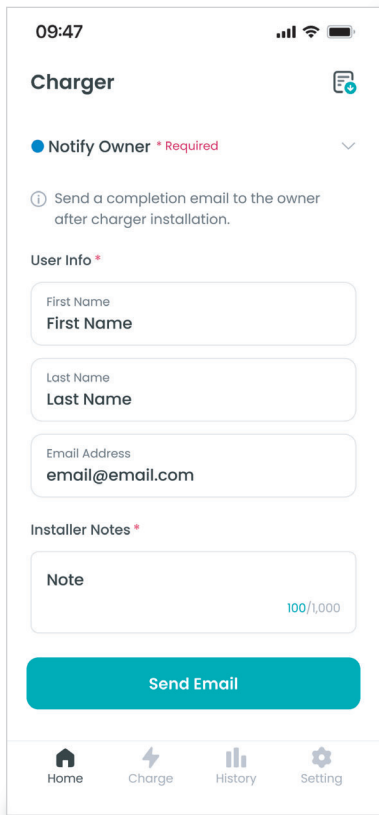
Test the charger by remote charging start/stop to check if the charger is operational through Humax Charger server.



STEP 7

Transfer charger ownership

Enter the user's email address and transfer the ownership of the charger to complete the installation. User will receive the notification email for the installation.



## User Guide

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Safety Notice

Product Overview

LED Indication

User App

Charger Registration

Network Configuration (optional)

App Overview

Charging Mode

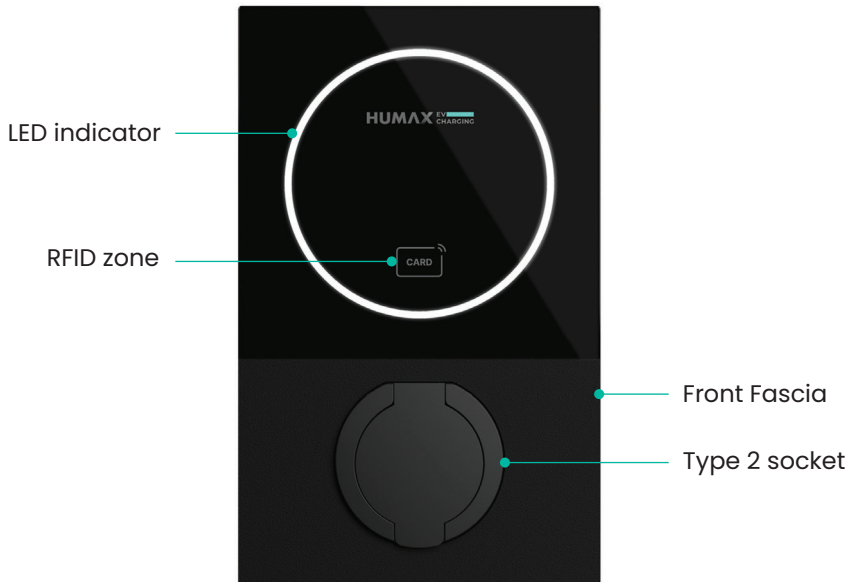
Before using the Humax MX7, please read and follow these safety precautions to prevent injury or damage.

- ❗ *Keep the charger away from flammable materials, chemicals, vapors, or hazardous objects.*
- ❗ *Remove the protective window film before use.*
- ❗ *Ensure the charger socket is clean and dry, wiping with a clean, dry cloth if needed.*
- ❗ *Avoid touching socket pins when the charger is powered on.*
- ❗ *Do not use the charger if it shows visible damage (e.g., cracks, abrasions, exposed wires).*
- ❗ *Keep children and pet away from the charger.*
- ❗ *Use the charger only for charging a stationary electric vehicle; for hybrids, ensure the engine is off.*
- ❗ *Recycle packaging and the charger at appropriate facilities, not with household waste. Contact your local waste authority for recycling details.*

Notice regarding personal data related to the charger.

- ❗ *Please note that the personal data related to the charger, such as network information and the charger logs will be deleted from the charger when the user deregister the charger from the user's account or when the user withdraw his/her account from the Humax Charge service.*
- ❗ *To deregister the charger, go to "Settings" > "Charger Management" > "Delete Charger".*
- ❗ *To withdraw the account from the service, go to "Settings" > "User Profile" ("My Account") > "Delete Account".*

## Charger Features | Socket type



### RFID Zone

Tap a registered RFID card on the RFID zone to start or stop charging instantly.

In Scheduled or Intelligent mode, charging will start automatically at the set time. However, you can override this by tapping the card before the scheduled start or end time.

Only registered RFID cards can be used. 2 RFID cards are included with the charger and should be registered during installation.

Charging can also be started or stopped instantly via the Humax Charge App.

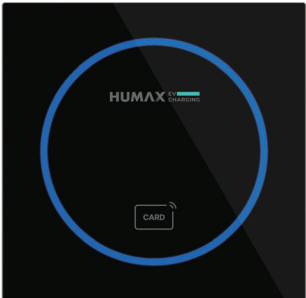
Charger Features | Cable type



MX7 uses a combination of LED lighting color and patterns (solid, blinking, breathing) to visually indicate its current operating status. Refer to the table below for detailed behavior and meanings. This helps ensure safe and efficient use of your charger.



White LED	Status
Solid	Charger booting
Breathing	Firmware upgrade



Blue LED	Status
Long Breathing	Charger is available
Short Breathing	Preparing charging



Green LED	Status
Short Breathing	Charging in progress
Long Breathing	Charging finished

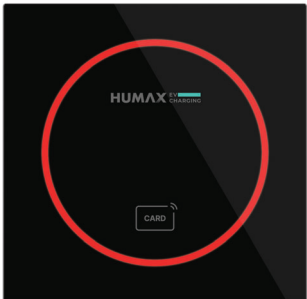


LED brightness and on/off setting can be configured via both the Humax Charge App and the Installer App.

**!** Network connection is required to apply these settings.



Yellow LED	Status
Long Breathing	Charger is currently locked Not available for charging



Red LED	Status
Blinking	Error
Blinking	RFID authentication failed



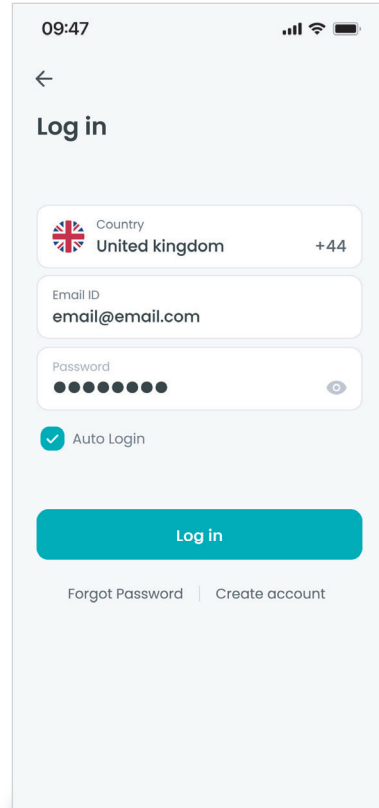
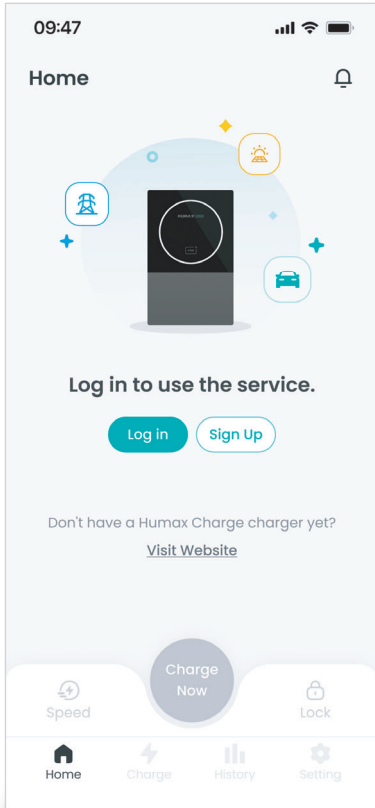
White & Red LED	Status
Solid & Toggling	Device in safe mode due to repeated boot failure

**Sign Up** | Create your account for the Humax Charge service with email address which will be your ID. A verification code will be sent to your email. Enter the code to complete sign up process.

**Log In** | Enter your email ID and password to log in. Check Auto Login to login automatically every time you open the app.

**App Introduction** | After logging in, you'll see a short guide introducing key features of the Humax Charge App.

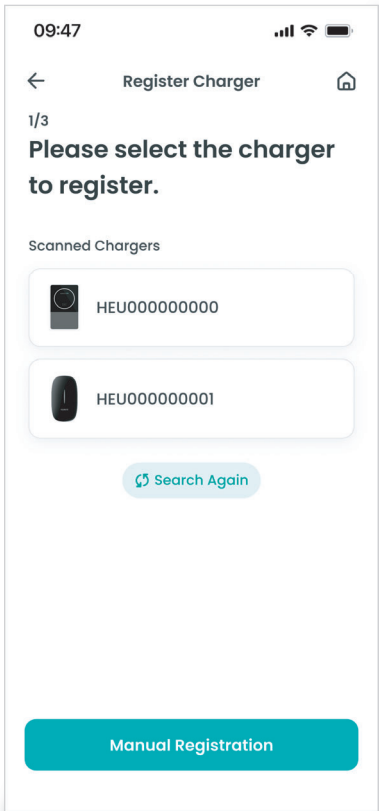
**Biometric Login (optional)** | Register Face ID or Touch ID for quicker and secure access.



STEP 1

Start with Bluetooth pairing

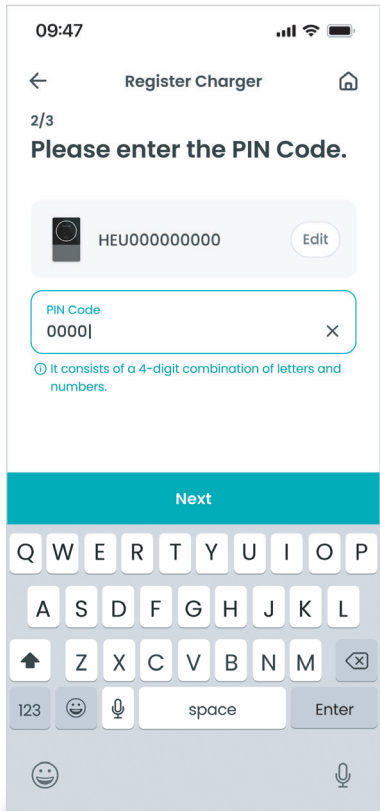
Make sure Bluetooth is enabled on your phone. Stay near the charger during installation for optimal connection. The app will scan the chargers around you. Choose the charger's serial number from the scanned list.



STEP 2

Enter the PIN code

Please enter the 4-digit PIN code located on the sticker on the back of this manual. Keep this code safe – it might be required for future access.



STEP 3

Enter the installation address

The charger warranty will begin based on the registered installation address.

STEP 4

Complete charger registration

In case the charger was not installed by installer before registration, you can proceed to network configuration to complete the charger installation.

09:47

← Register Charger →

3/3

**Enter the charger installation address.**

Service Country: United kingdom(+44)

Q 123 Baker X

123 Baker Street London NW1 6XE  
United Kingdom

123 Baker, Street London NW2 8XE  
United Kingdom

Q W E R T Y U I O P  
A S D F G H J K L  
↑ Z X C V B N M ↵  
123 😊 🎤 space Enter  
😊 🎤

09:47

← →

**Complete!**

To control the charger via the app,  
network configuration must be  
completed.

+

✓

Serial number  
HEU000000000

Model name  
HS71007

Installed address  
123 Baker Street London NW1 6XE  
United Kingdom

Registration date  
13.JUN.2025

Skip Configure Network

## STEP 5

**Configure your network**

Tap "Setting" to enter network configuration. Enter correct Wi-Fi details to ensure setup.

Ensure the OCPP URL is displayed correctly. If not, reconnect via BLE or enter it manually as shown below.

09:47

✕ Network Configuration

Connection type

Wi-Fi

① Only 2.4GHz Wi-Fi is supported.

Wi-Fi information

Wi-Fi Name

Wi-Fi\_2.4G

Wi-Fi Password

●●●●●●●●

OCPP URL

wss://uhc2-server.humaxcharging.com:443

Connect

## STEP 6

**Verify the network connection**

Make sure all the information is correct for the charger to connect to the network successfully.

Connecting to the server may take up to 5 minutes.

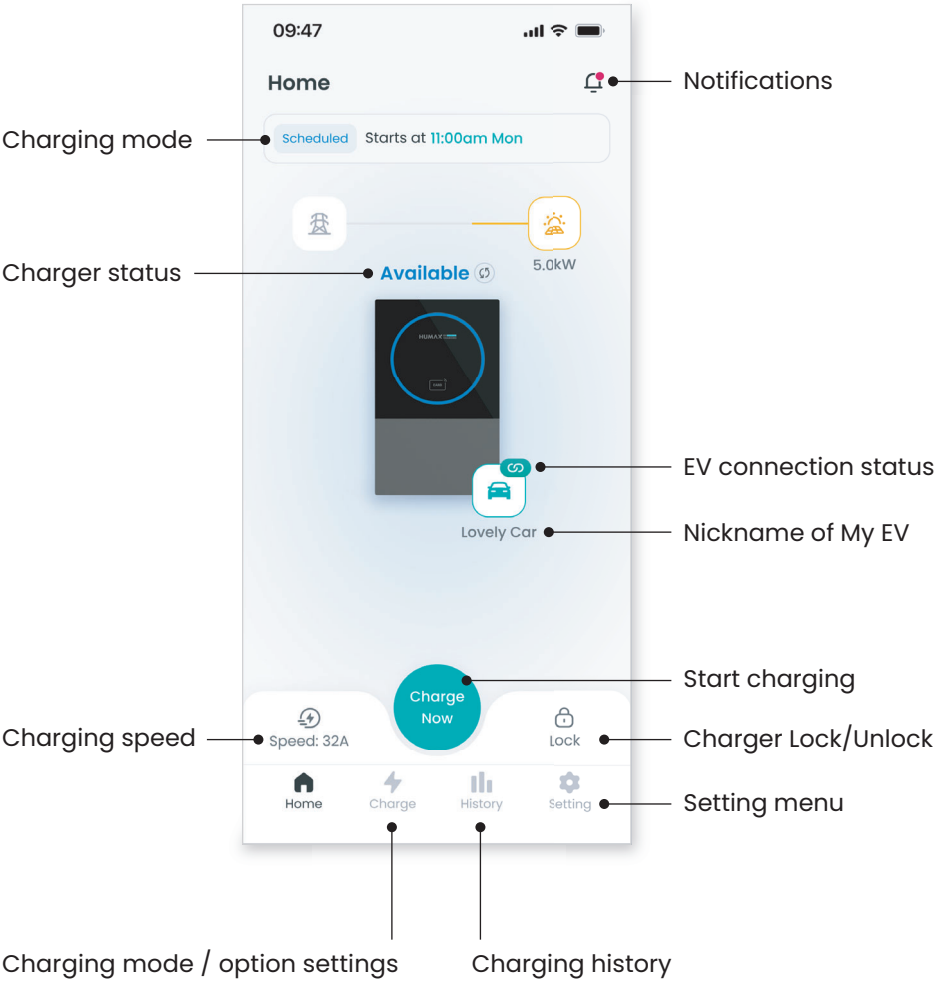
09:47

Charger has been connected to the network.

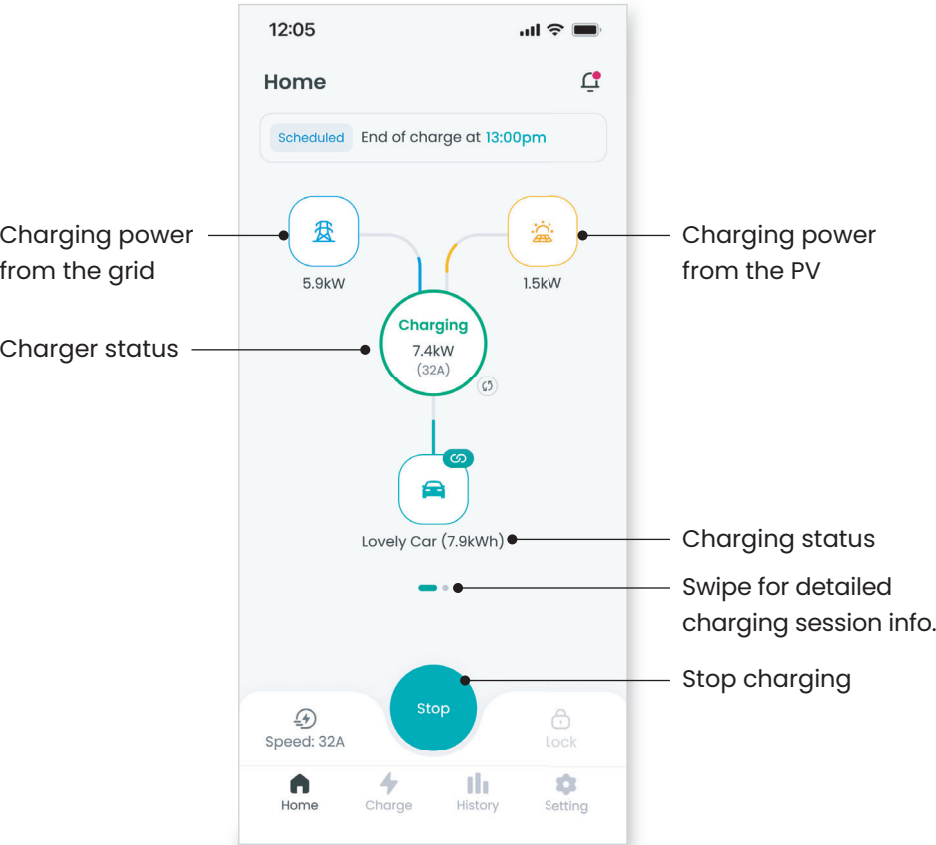
Enjoy various charging features in Humax Charge. You can change the connected network in "Charger management".

Confirm

Homescreen features | Before charging



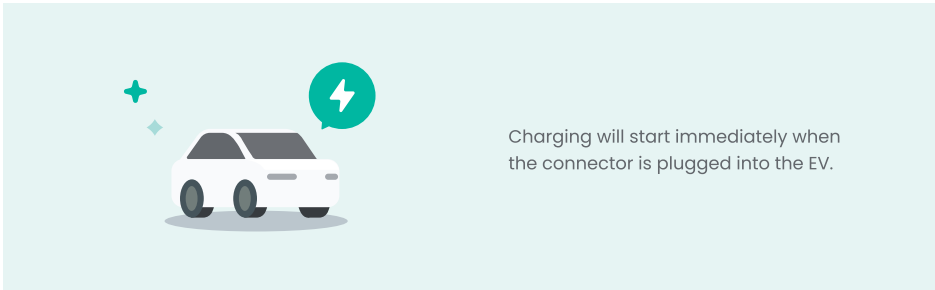
Homescreen features | During charging



## Instant Charging mode

Instant Charging mode allows the EV charger to begin charging automatically as soon as the charging connector is plugged in to the electric vehicle.

No additional user action, such as RFID tagging or app control, is required. This mode is ideal for private or residential use, where quick and seamless charging is preferred.



### Key Behavior

Charging automatically starts when the EV connector is plugged into the vehicle.

Charging stops when the EV connector is disconnected.

Charging can be manually started or stopped via the app or RFID.

Random Delay will not be applied for instant charging.

### Configuration

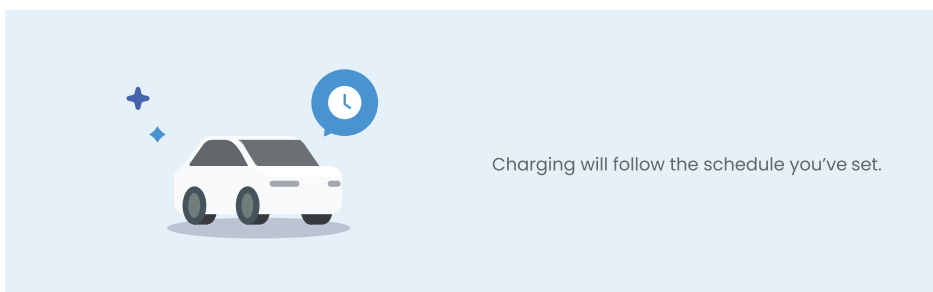
To set the instant charging mode,  
go to 'Charge' tap at the bottom > Charging settings  
> Select "Instant Charging"



## Schedule charging mode

Schedule Charging mode allows the EV charger to start charging automatically based on the user-defined schedule, as long as the EV is connected.

This mode helps reduce charging costs by aligning charging sessions with off-peak electricity rates.



### Key Behavior

Charging begins automatically at the scheduled time if the EV is connected.

Users can manually start charging at any time using the 'Charge Now' button or by tagging an RFID card.

### Schedule Ready-by Settings

The default schedule is based on the UK Off-Peak time.

Users can add, edit, or delete scheduled sessions.

Each session includes:

- Repeat options
- Days of the week
- Start and End time

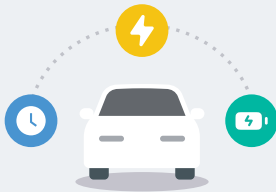
Sessions automatically adjust for Daylight Saving Time (DST) when applicable.

### Configuration

For detailed Schedule charging management, go to 'Charge' tap at the bottom > Charging settings > Schedule Charging

## Intelligent Charging mode

Intelligent Charging mode automatically starts charging based on an optimized schedule generated by the Humax Charge service, using vehicle and energy information. This mode is designed to maximize efficiency and minimize energy cost, while ensuring your EV is ready by your set departure time.



Charging starts at the optimal time based on departure, target charge, and energy tariff. EV and tariff info must be linked to Humax Charge for intelligent charging.

### Key Behavior

The following information must be set before using the mode.

- EV with vehicle identification enabled
- Energy Tariff
- User-defined charging goals  
(ready by time, target charging amount in %)

### Intelligent Ready-by Settings

Intelligent charging will start automatically at the optimal time once your EV is connected and a tariff is set.

To use Intelligent Charging, please ensure the following conditions are met:

- Register your time-based energy tariff in the app.
- Set the desired charging amount in % to be topped up and the time by which charging should be complete.

### Configuration

For detailed Intelligent charging management, go to 'Charge' tap at the bottom > Charging settings > Intelligent Charging

HUMAX EV CHARGING



## Support

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Warranty

Specification

Contact

Humax provides a warranty for this product against any defects in materials and craftsmanship for a duration of five years from the date of installation, provided the product is installed within two months of the purchase date. If installation occurs more than two months after the purchase date, the warranty period will instead begin from the date of purchase. To uphold our limited warranty, proper installation is essential, following Humax's guidelines, adhering to relevant regulations, and performed by a certified electrician.

Throughout this period, Humax will, at its discretion, repair or replace any faulty product at no cost to the owner. Replaced items or mended components will carry a guarantee for the remaining time of the original warranty, or six months, whichever is longer.

The landscape of electric vehicles is in constant evolution, and even seemingly identical manufacturers, models, and years can encompass diverse battery and software setups. We acknowledge the potential frustration stemming from this variability, which sometimes can be attributed to the vehicle and its manufacturer. To address this, we've developed a solution that enables our company to make remote adjustments and updates to chargers, ensuring they operate optimally and in sync with the latest electric vehicle developments.

It's important to note that this limited warranty does not cover defects arising from accidents, misuse, inadequate maintenance, or normal wear and tear. Any client-initiated part replacements or integrations will be considered improper usage. Except where prohibited by applicable law, the conditions outlined in this limited warranty do not exclude, limit, or alter the mandatory statutory rights related to product sales. If you suspect a defect in your product, please contact us for guidance on where to send or bring it for repair.

Please retain your purchase receipt as evidence of your transaction, as it will be necessary to validate any warranty-related repairs in the future. You can find the product code and serial number on the side of the product with the barcode label.

<b>General Information</b>	Power supply	Single phase		
	Rated voltage	230V AC		
	Rated current	32A		
	Frequency	50Hz		
	Cable type	Type 2 connector		
<b>Communication</b>	Wifi	802.11b/g/n		
	Ethernet	802.3, 1 Port, 10/100 Mbps		
	LTE (Optional)	4G LTE Cat.1 module + uSIM socket + Antenna		
	Bluetooth	Bluetooth 5.0		
	RFID/NFC	RFID + NFC Mifare Classic, Type A		
	PLC	ISO 15118		
<b>Product Spec</b>	OCPP	1.6J		
	Dimension	W 210 x H 335 x D 132 mm		
	Mounting type	Wall mounted / Standing pole (optional)		
	Housing material	PC + ASA		
	Weight	Cable type 4.7kg (5m) / 5.4kg (7.5m)		
		Socket type 3.3kg		
	Work temperature	-30°C ~ +50°C		
	Operating humidity	5% ~ 95%		
<b>Safety &amp; Security</b>	Work altitude	< 2,000m		
	Warranty	5 Years (including Security update supports)		
	RCD	DC 6mA detection, Ext. Type A RCBO is required		
	Ingress protection	Cable type IP65 / Socket type IP54		
	Impact protection	IK10		
	Tamper detection	Yes		
	PEN-fault protection	Yes		
<b>Certification</b>	Electrical protection	Relay-Sticking protection, Over current protection Over temperature protection, Surge protection Residual current protection, Over/Under voltage protection, Over/Under frequency protection		
	UK EVSCP Regulation 2021	EN IEC 62311:2020	BS EN IEC 61851-1:2019	
	EN 301 489-3 V2.3.2:2023	BS IEC 62955:2018	EN IEC 61000-6-1:2019	
	EN 301 489-17 V3.3.1:2024	EN IEC 63000:2018	ISO 15118 ready, UKCA	
	EN 300 330 V2.1.1:2017	EN 303 645	EN IEC 61851-21-2:2021	
	EN IEC 61000-3-12:2011+A1:2024	BS 7671:2018	EN 300 328 V2.2.2:2019	
	EN IEC 61000-6-3:2007+A1:2021	EN IEC 62196	EN 301 489-1 V2.2.3:2019	

### **HUMAX Support Hub**

Please visit HUMAX Support Hub for step by step details, installation videos, and other helpful resources to get started and learn more.



Phone

**0344 318 8800**

Website

**[www.humaxcharging.com/uk](http://www.humaxcharging.com/uk)**

Email

**[uk.support@humaxcharging.com](mailto:uk.support@humaxcharging.com)**

If you have any concerns related to the security of the charge point, please visit the following link.

**<https://uk.humaxdigital.com/sustainability>**

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### **HUMAX Electronics Co. Ltd**

Address

**Forsyth House, Cromac Square, Belfast,  
Northern Ireland, BT2 8LA**

Business Hour

**Mon – Fri | AM 9:00 – PM 5:30**

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**Model**      HS71007/AM.C0.M0.320B/UK  
HS71007/AM5.C0.M0.320B/UK  
HS71007U/AM.C0.M0.330B/UK

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**User App**



**Installer App**



**HUMAX**

Rev. 1.3

Please note this Manual is subject to change. For the latest versions of all supporting material, please visit the HUMAX Support Hub.

PLACE LABEL HERE