HUMAX EV CHARGING

MX7

HOME EV CHARGER

QUICK MANUAL

Contents

Notice 3

Installation Guide

Preparation 5
Wall Mounting 6
External Protection 8
Electrical Wiring 9
Current Limit Configuration 10
CT Clamp 11
Network Connection 13
Connecting Charger 14
Network Configuration 16

User Guide

Safety Notice 19
Product Overview 20
LED Indication 22
User App 24
Charger Registration 26
Network Configuration 28
App Overview 30
Charging Mode 32

Support

Warranty 37
Specification 38
Contact 39

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.

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

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

Installation Location | Choose a well-ventilated area, away from heat sources, direct sunlight, or water-prone locations to prevent overheating or water 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.

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

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

Data and 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

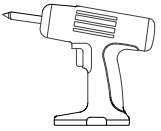
Preparation

Wall Mounting
External Protection
Electrical Wiring
Current Limit Configuration
CT Clamp
Network Connection

Connecting Charger
Network Configuration

Tools required

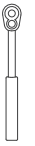
Multimeter
(AC/DC)



Electric
Power Drill

Screwdriver
(PH2 & PH3 & T30)

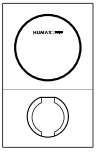
Diagonal
Pliers



Insulated
Torque Wrench

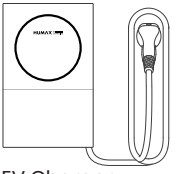
Package Contents

Socket Type



EV Charger
1 EA

Cable Type

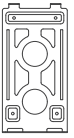


EV Charger
1 EA

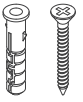
Cable Holster
1 EA

Holster Screw
3 SET

Quick Guide
1 EA



Wall Bracket
1 EA



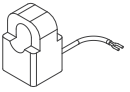
Installation Screw
4 SET

Bracket Screw
2 EA

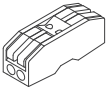
Door Screw
2 EA

RFID Card
2 EA

CT Clamp Connector
1 EA



CT Clamp
1 EA



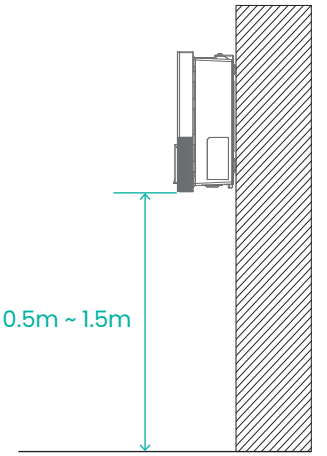
Extension Connector
1 EA

Ferrule Terminal
3 EA

STEP 1

Verify installation environment

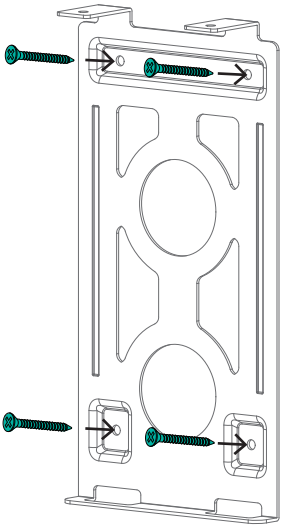
Confirm the wall material is suitable.
: Concrete, lightweight concrete, hard or soft natural stone, masonry bricks or hollow blocks.
Do not install on gypsum board or MDF walls.
Ensure the charger is mounted 0.5m to 1.5m above the floor.



STEP 2

Mount the bracket

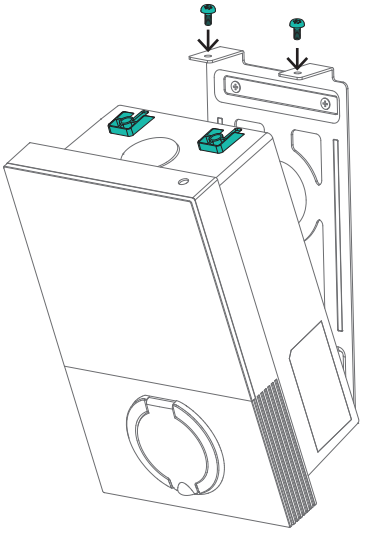
Ensure that the bracket is mounted with the bent L-shaped edge facing upward.
Use a Ø8 drill bit to make holes at the 4 designated fixing points on the wall through the bracket, ensuring a minimum depth of 60mm.
Then, insert the installation anchor (8x40mm) into the drilled holes and fasten the screws using torque of 0.7N·m.



STEP 3

Secure the charger

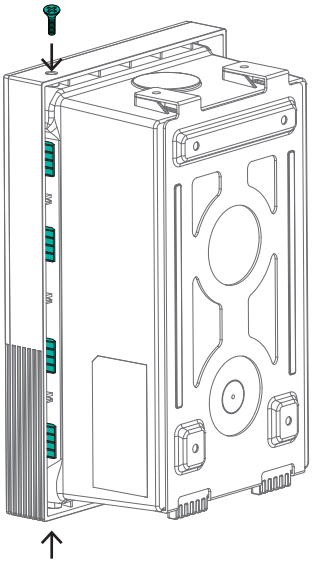
Hang the charger onto the groove of the wall-mounted bracket.
Firmly fasten it using the provided hexalobular screws (M6x8mm). Use a torque of 4N·m to ensure proper tightening. After assembly, shake the unit to confirm it is securely mounted with no looseness.



STEP 4

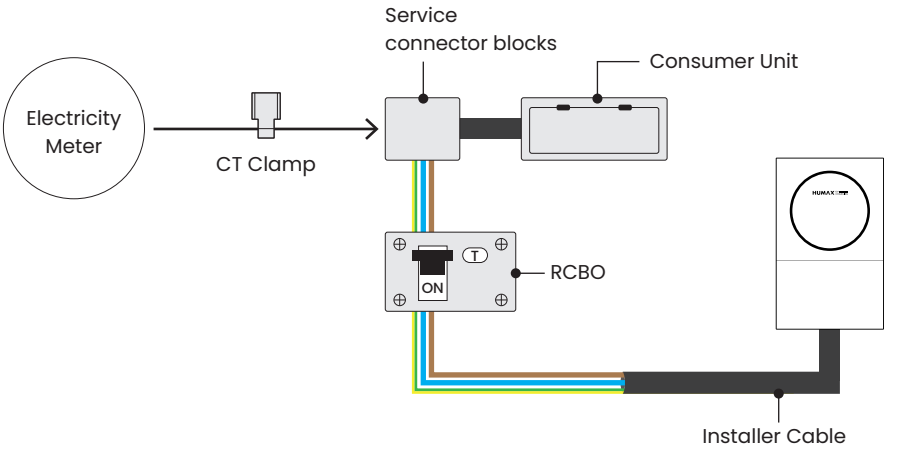
Open the front cover

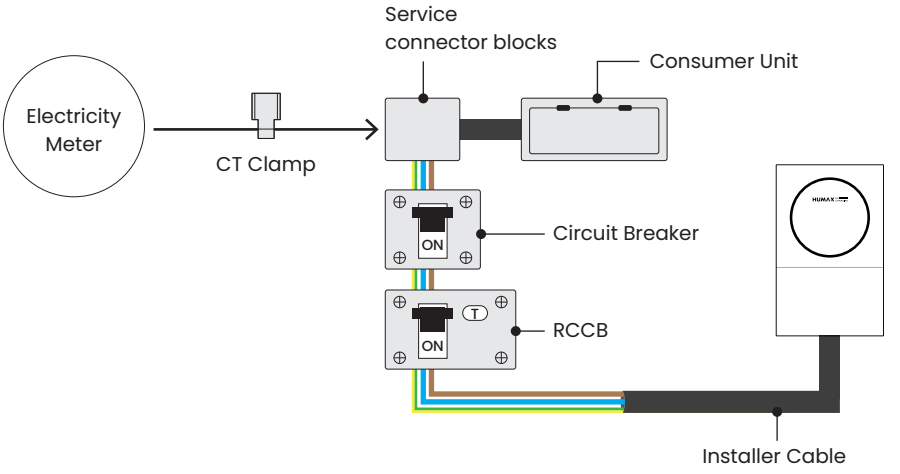
Release 4 side hooks on the right side of the charger to open the front cover.
After completing all the electrical wiring steps described in the following pages, fasten the screws (M4x8mm, 0.7N·m) at the top and bottom of the front cover to securely close the unit.



STEP 1 | **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.

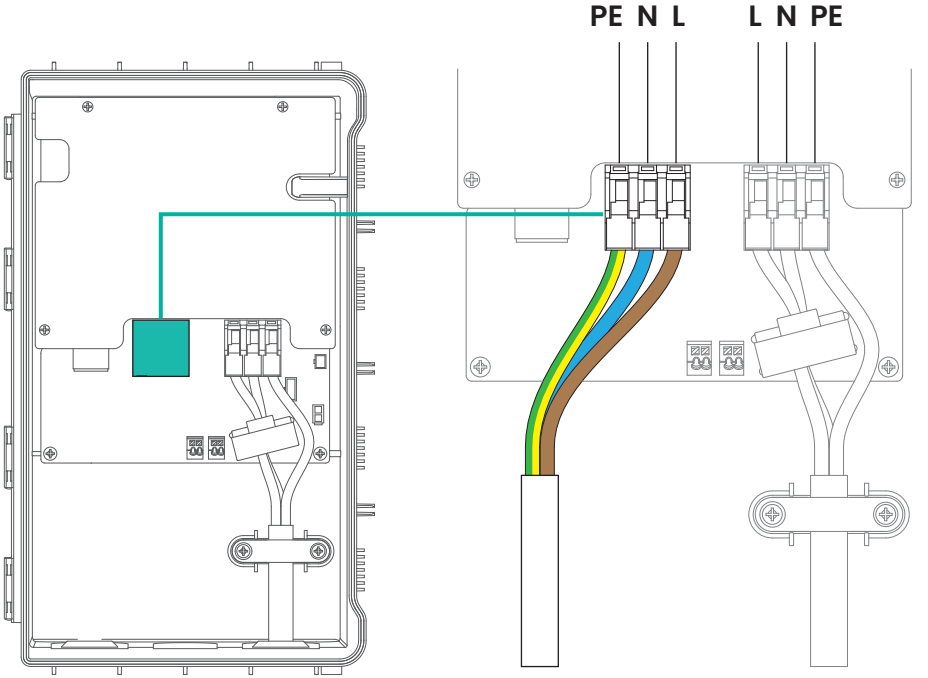




STEP 2 | **Connect the power cable**

Feed the power cable through the rubber sealing located at the bottom left of the unit. 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.

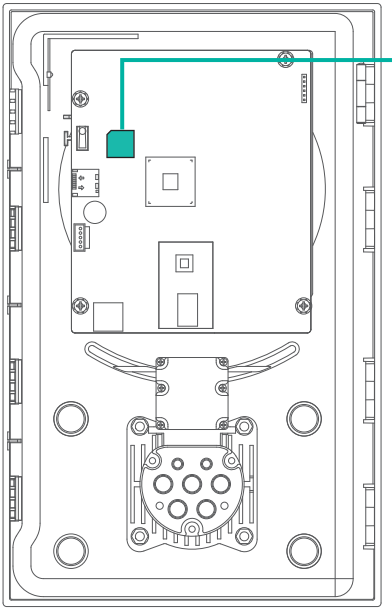
The charger is equipped with PEN fault protection and an automatic disconnection system, compliant with BS 7671:2018 Amendment 2:2022 (clause 722.411.4.1, 18th Edition IET Wiring Regulations).

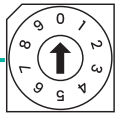


STEP 3 | **Setting the maximum charging current (Rotary switch adjustment)**

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

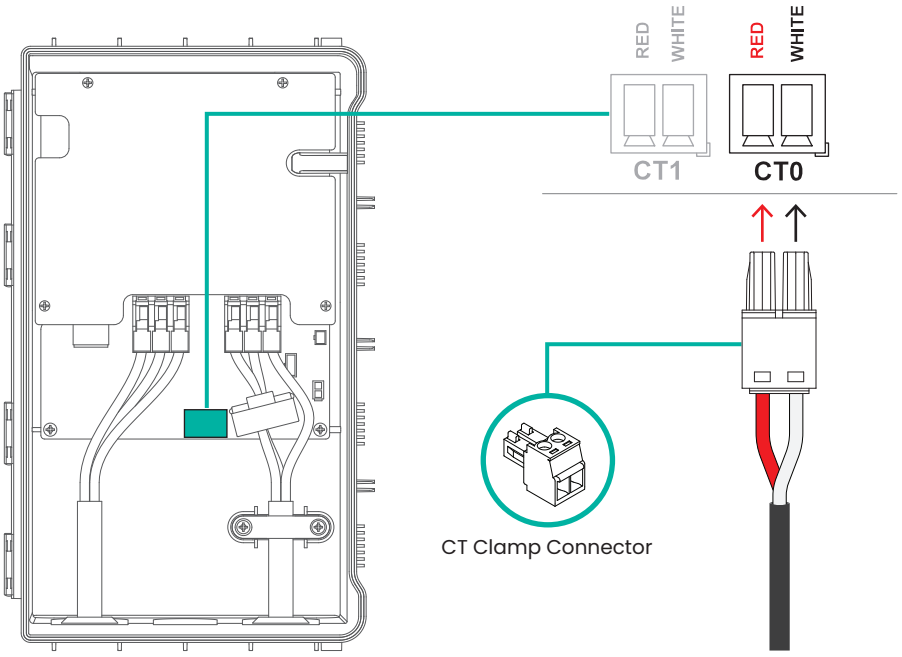
STEP 4 | **CT Clamp installation**

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.

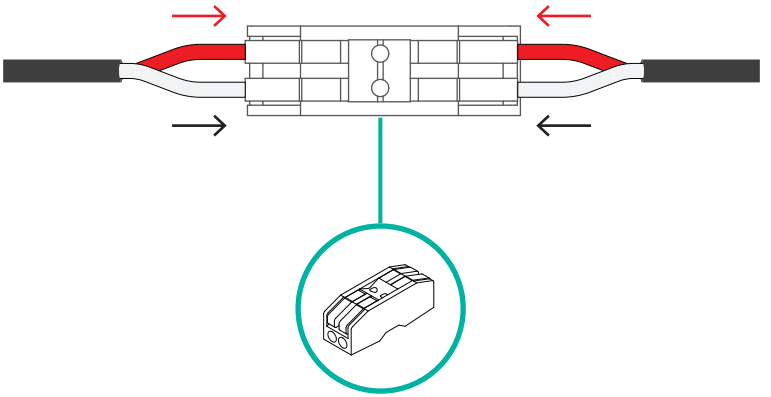


STEP 5 | **CT Clamp cable extension (optional)**

If additional cable length is needed during CT clamp installation, use the extension connector provided in the accessory box. Connect both ends of the CT cable using the extension connector, as shown in the side view above.

Ensure that : The connector is securely fastened.
The wire polarity (red/white) is correctly maintained.

Do not modify or splice the CT cable manually. Always use the designated extension connector to ensure measurement accuracy and electrical safety.



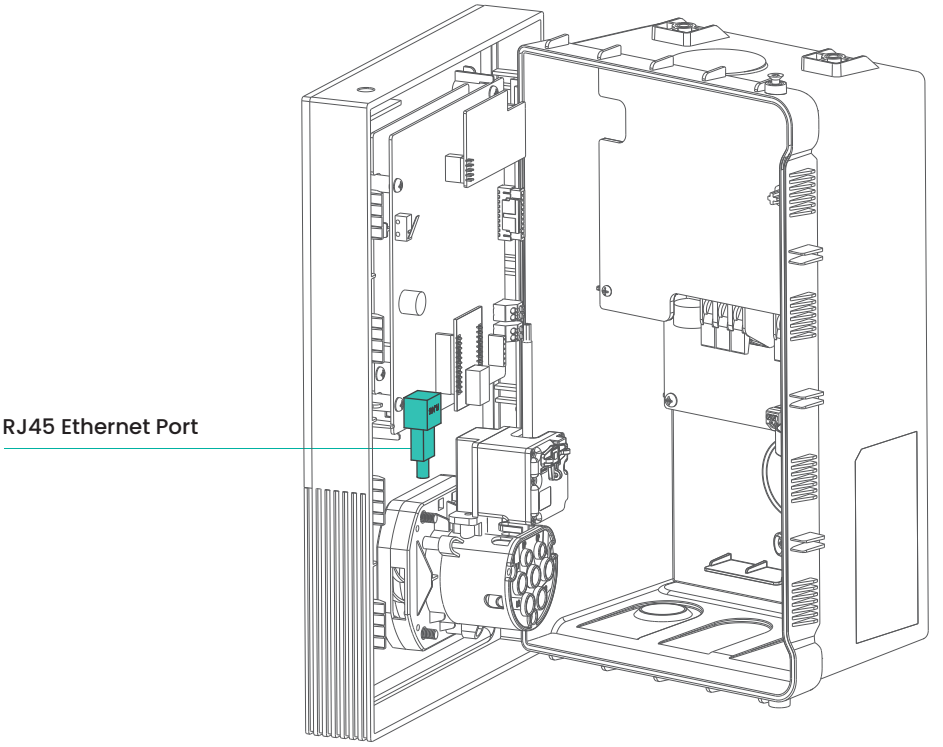
Extension Connector

STEP 6 | **Connect Ethernet cable (optional)**

The Humax MX7 Home EV Charger requires an internet connection to enable smart features, such as remote monitoring and scheduling via the HumaxCharge app.

You can connect the charger to your home network using Wi-Fi (802.11 b/g/n) or an Ethernet cable. (Secure protocols and secure routers must be used.)

In most cases, Wi-Fi connection should be ok, but in case the charger is located far from your Wi-Fi router and wireless connection is not strong enough, consider using a Wi-Fi extender or Ethernet cable for a more reliable and stable connection.



STEP 1

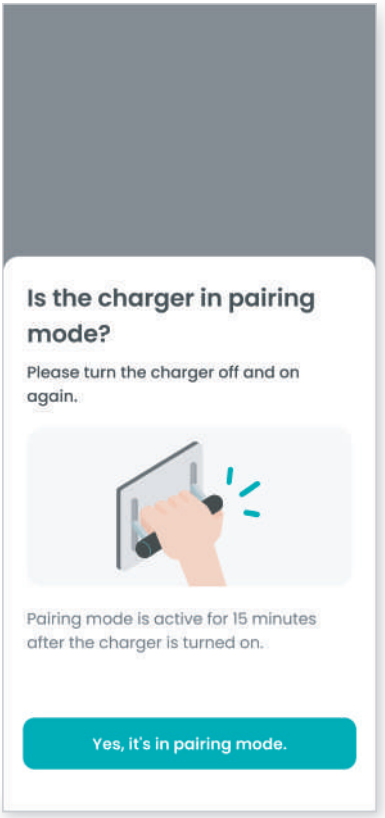
Start with Bluetooth pairing

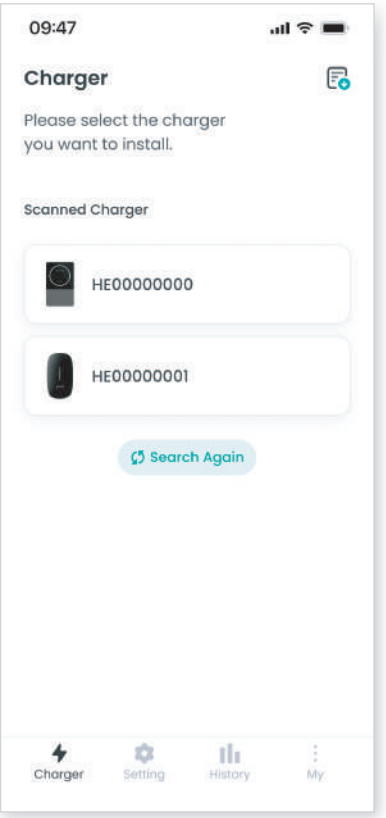
Make sure Bluetooth is enabled on your phone.
Stay near the charger during installation for optimal connection.

STEP 2

Select your charger

The app will scan the chargers around you. Choose the charger's serial number from the scanned list.

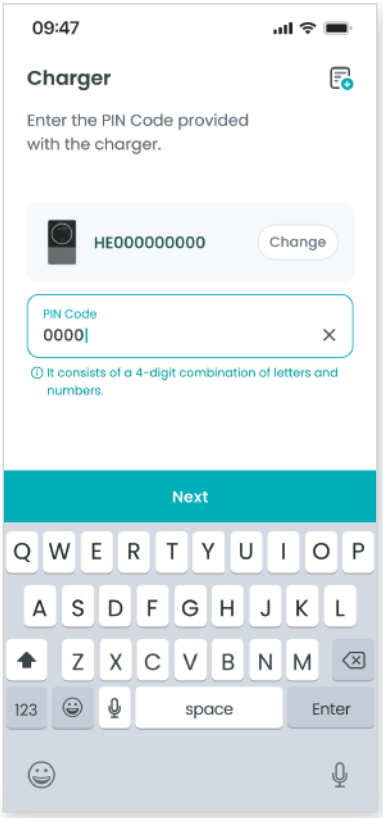




STEP 3

Enter the PIN code

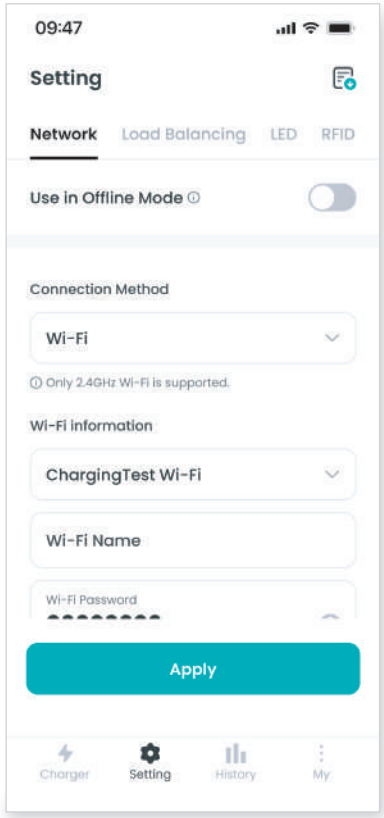
Enter the 4-digit PIN code printed on the sticker enclosed in the box with the charger.
It is recommended to put the sticker on the back of the manual for easy reference later.



STEP 4

Configure your network

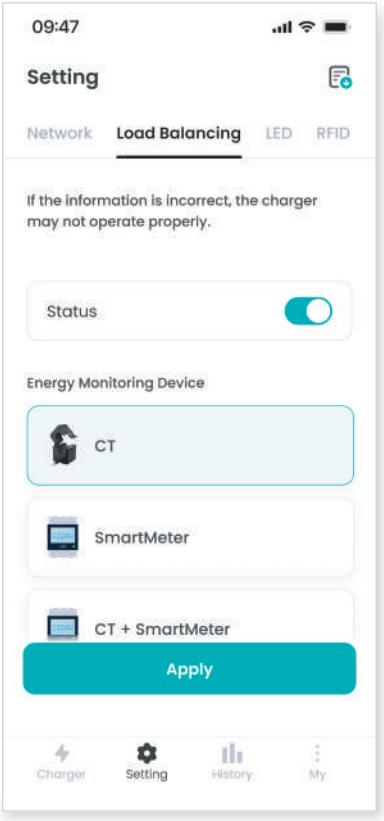
Tap “Setting” button to proceed to network configuration screen.
Fill in the necessary network information. Default OCPP URL should be used without modification in most cases.



STEP 5

Configure load balancing

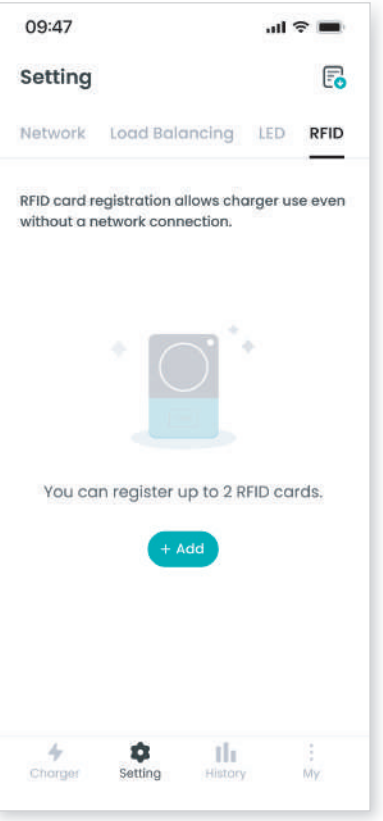
Register the energy monitoring device and set the current limit for your house for the dynamic load balancing.
For the safety, it is recommended to set the current limit 10A lower than the physical RCBO/RCCB's rating current.



STEP 6

Register RFID cards

Register the RFID cards enclosed with the charger.
Once registered, you can use the charger in offline mode as well with these RFID cards.



STEP 7

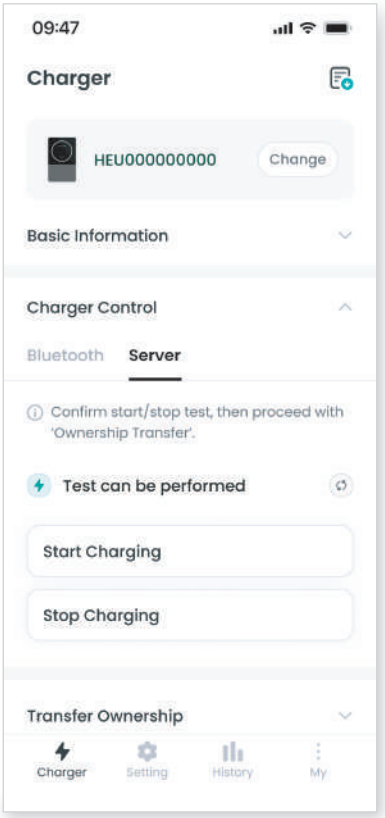
Test the charger

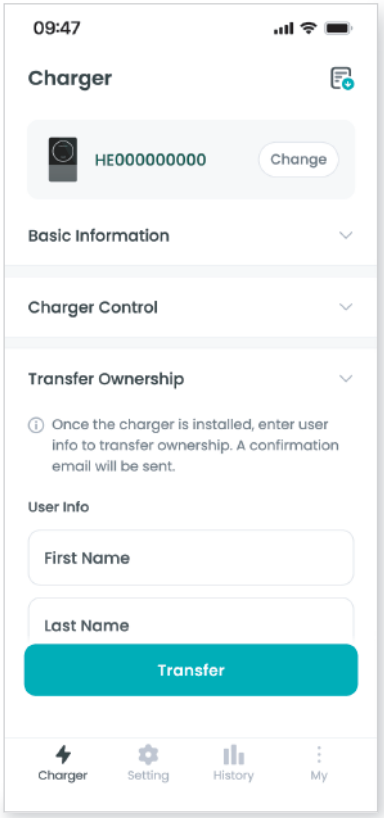
Test the charger by remote charging start/stop to check if the charger is operational through Humax Charger server.

STEP 8

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

Safety Notice
Product Overview
LED Indication

User App
Charger Registration
Network Configuration
App Overview
Charging Mode

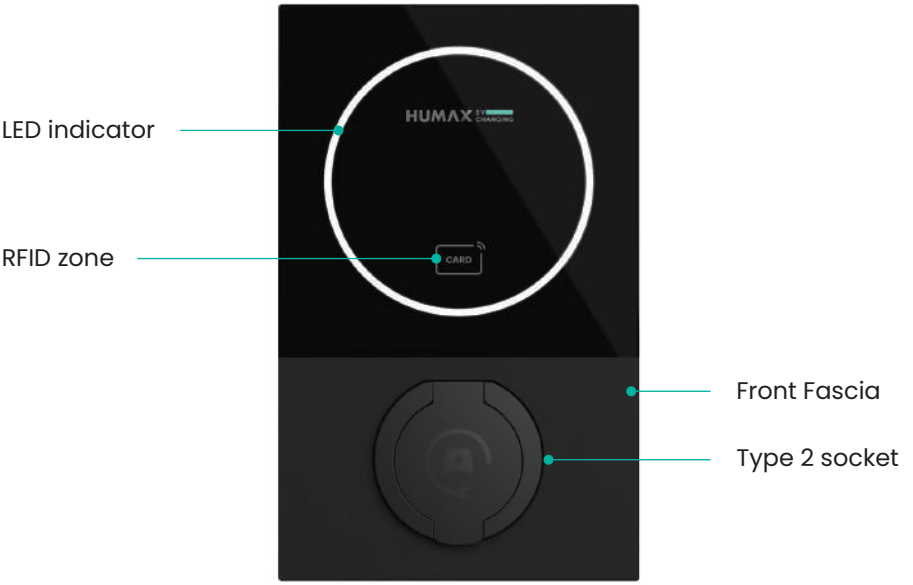
Before using the Humax MX7, please read and follow these safety precautions to prevent injury or damage.

- *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

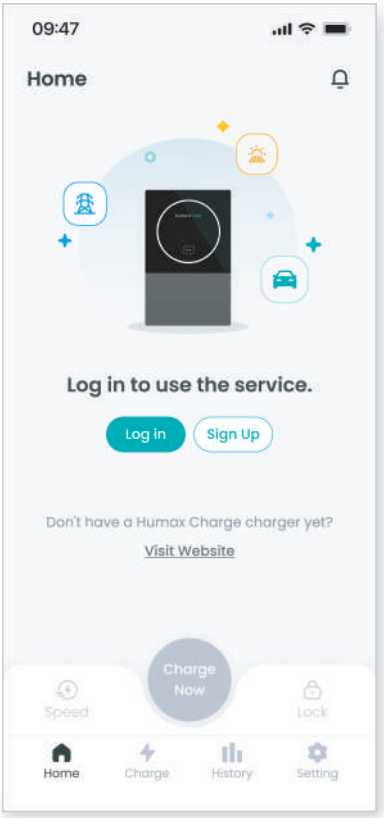
HUMAX EV CHARGING
CARD

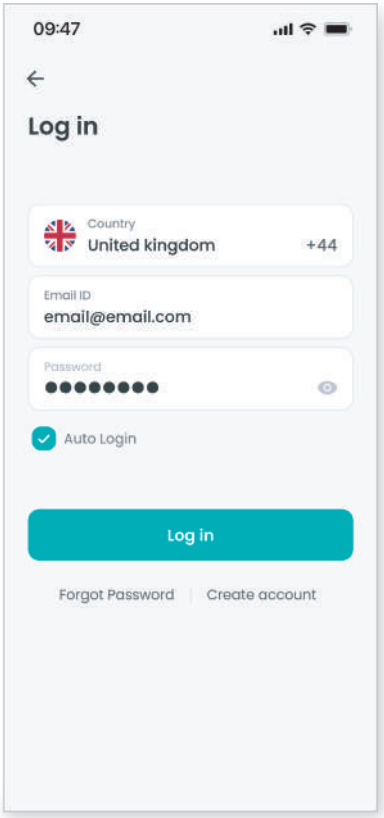
Sign Up | Create your account for the Humax Charge service with email address which will be your ID. A verification code will be sent to your email. Enter the code to complete sign up process.

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

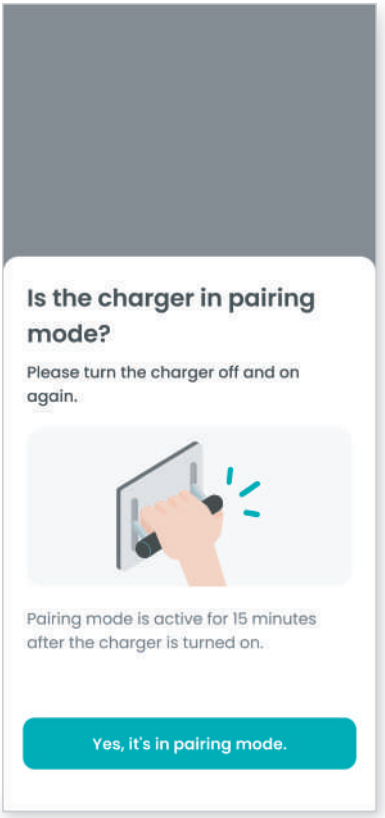
Start with Bluetooth pairing

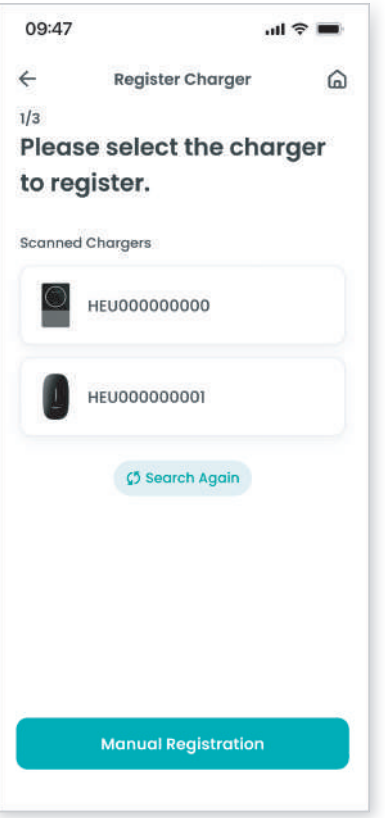
Make sure Bluetooth is enabled on your phone.
Stay near the charger during installation for optimal connection.

STEP 2

Select your charger

The app will scan the chargers around you. Choose the charger's serial number from the scanned list.

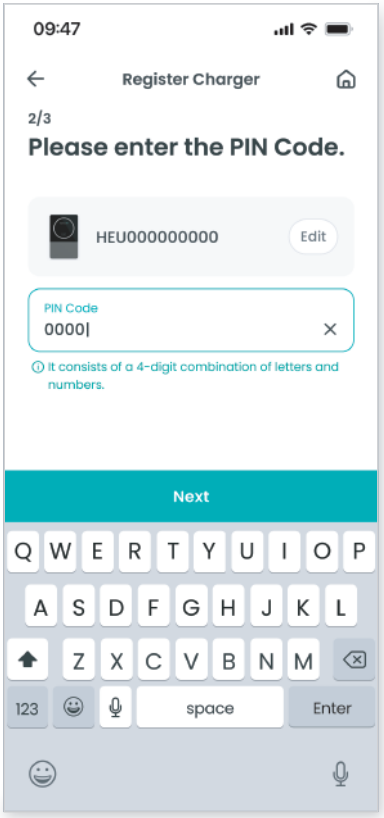




STEP 3

Enter the PIN code

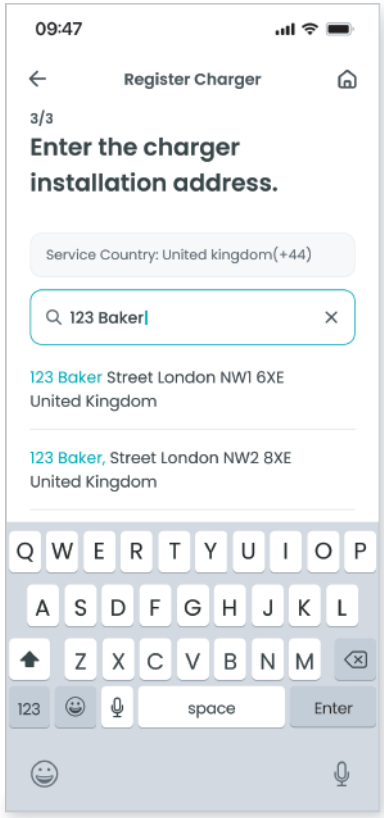
Enter the 4-digit PIN code printed on the sticker enclosed in the box with the charger.
It is recommended to put the sticker on the back of the manual for easy reference later.



STEP 4

Enter the installation address

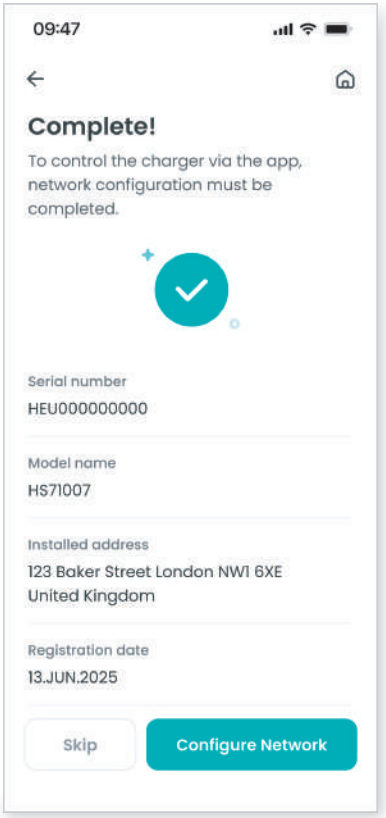
The charger warranty will begin based on the registered installation address.



STEP 1

Complete charger registration

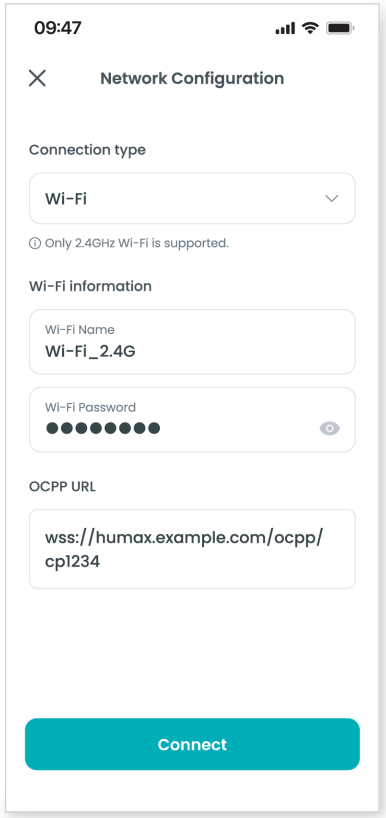
In case the charger was not installed by installer before registration, you can proceed to network configuration to complete the charger installation.



STEP 2

Configure your network

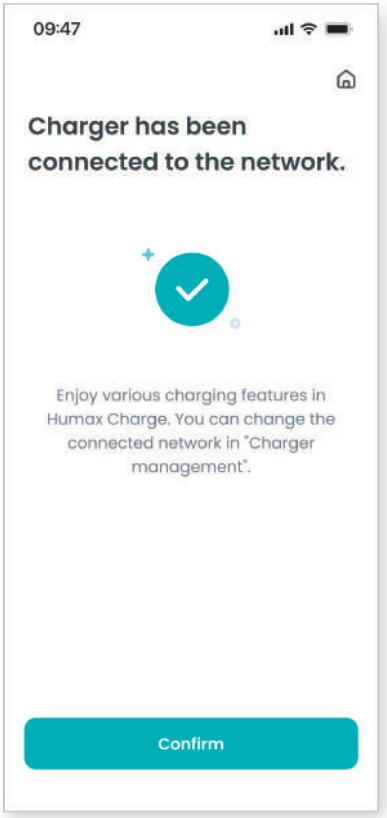
Fill in the necessary network information. Default OCPP URL should be used without modification in most cases.



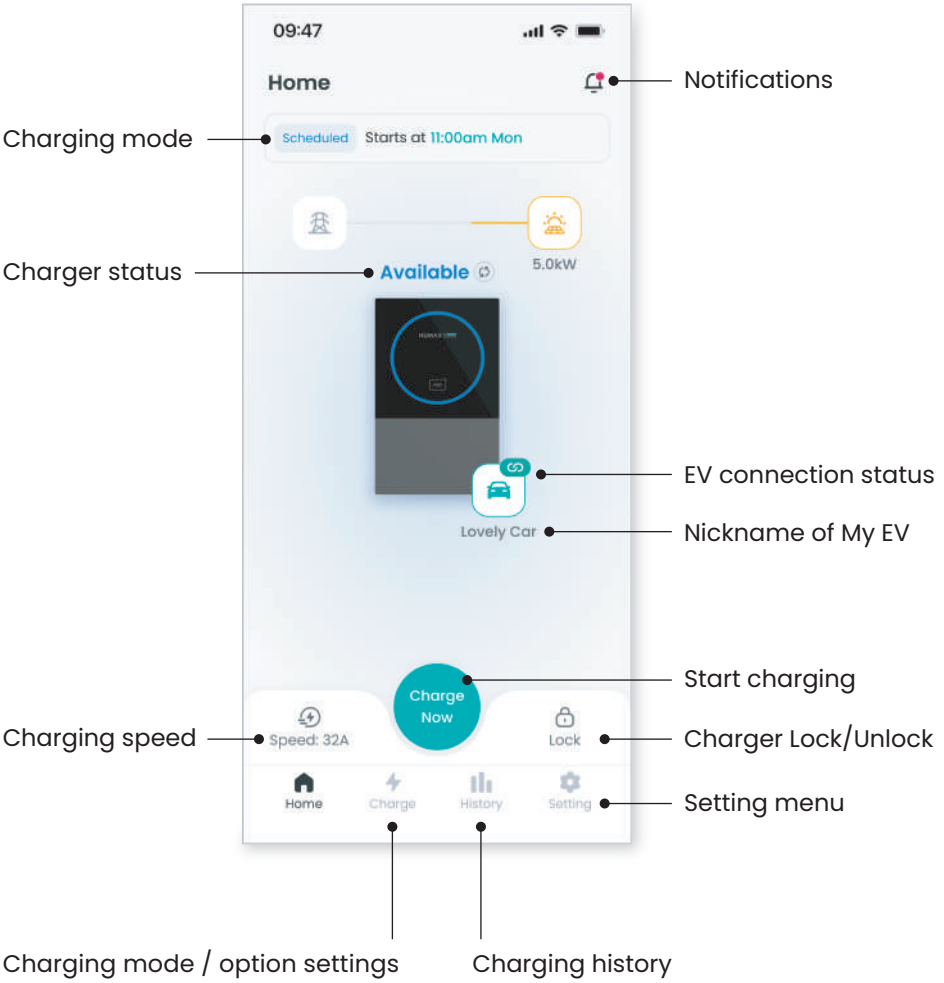
STEP 3

Verify the network connection

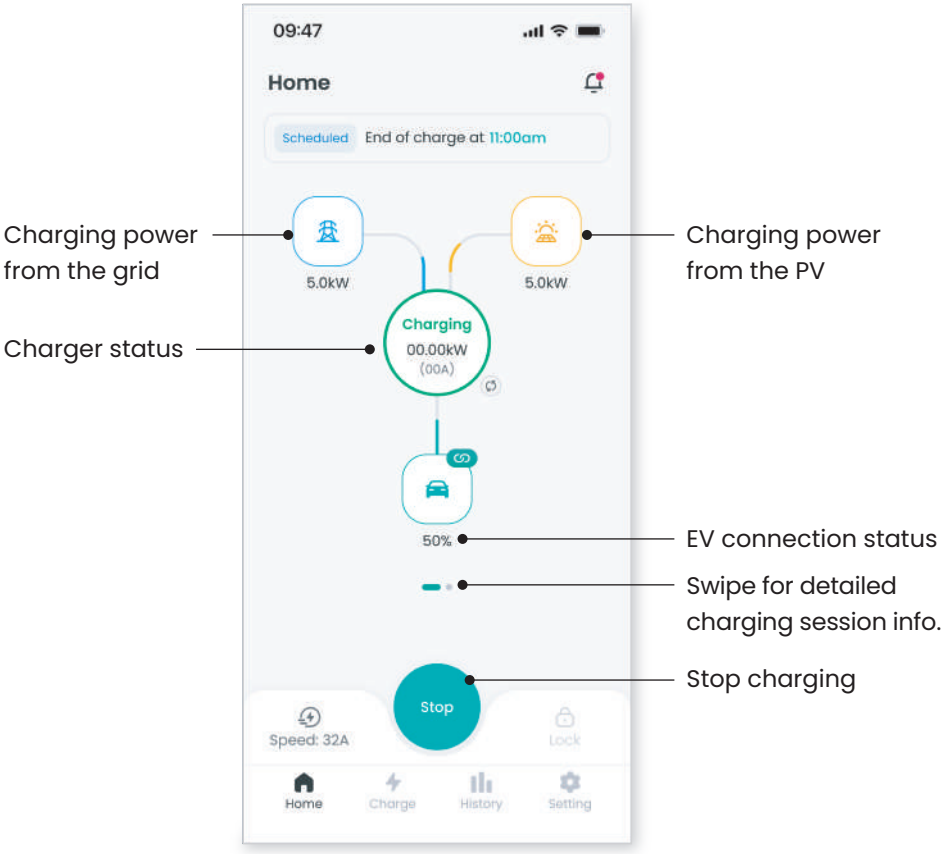
Make sure all the information is correct for the charger to connect to the network successfully.



Homescreen features | Before charging



Homescreen features | During 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 will start immediately when the connector is plugged into the EV.

Key Behavior	The following information must be set before using the mode. - EV capable of Intelligent Charing (with SoC detection) - Energy Tariff - User-defined charging goals (ready by time, target charging level)
Schedule Ready-by Settings	At least one ready by schedule must be registered. Default schedule (User can add/edit/delete schedules.) - Weekdays - Departure time 6:00 AM - Target charge 80%
Configuration	For detailed Intelligent charging management, go to 'Charge' tap at the bottom > Charging settings > Intelligent Charging

Schedule charging mode

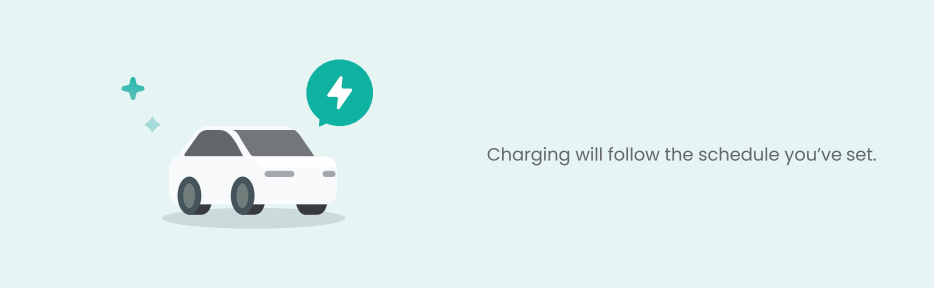
Schedule Charging mode allows the EV charger to start charging automatically based on the user-defined schedule, as long as the EV is connected.
This mode helps reduce charging costs by aligning charging sessions with off-peak electricity rates.

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	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

Instant Charging mode

The 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 authentication or app control, is requirved. 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 stopped using 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"

HUMAX EV CHARGING
CARD

Support

Warranty
Specifiaction
Contact

Humax provides a warranty for this product against any defects in materials and craftsmanship for a duration of five years years from the date of installation. 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.

General Information	Power supply	Single phase
	Rated voltage	230V AC
	Rated current	32A
	Frequency	50Hz
	Cable type	Type 2 connector
Communication	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
	OCPP	1.6J
Product Spec	Dimension	W 132 x H 335 x D 210 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%
	Work altitude	< 2,000m
	Warranty	5 Years (including Security update supports)
Safety & Security	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
	Electrical protection	Relay-Sticking protection, Over current protection Over temperature protection, Surge protection Residual current protection, Over/Under voltage proection, Over/Under frequency protection

Certification

BS 7671:2018	EN 300 328 V2.2.2:2019
BS EN IEC 61000-6-1:2019	EN 300 330 V2.1.1:2017
BS EN IEC 61000-6-3:2021	EN 301 489-1 V2.2.3:2019
BS EN IEC 61851-1:2019	EN 301 489-3 V2.3.2:2023
BS EN IEC 61851-21-2:2021	EN 301 489-17 V3.2.4:2020
BS EN IEC 62311:2020	EN 303 645, IEC 62196
BS EN IEC 63000:2018	ISO 15118 ready, UKCA
BS IEC 62955:2018	UK EVSCP Regulation 2021

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

Email

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/

HUMAX Electronics Co. Ltd

Address

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

Business Hour

Mon - Fri | AM 9:00 - PM 5:30

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

User App

Installer App

HUMAX

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