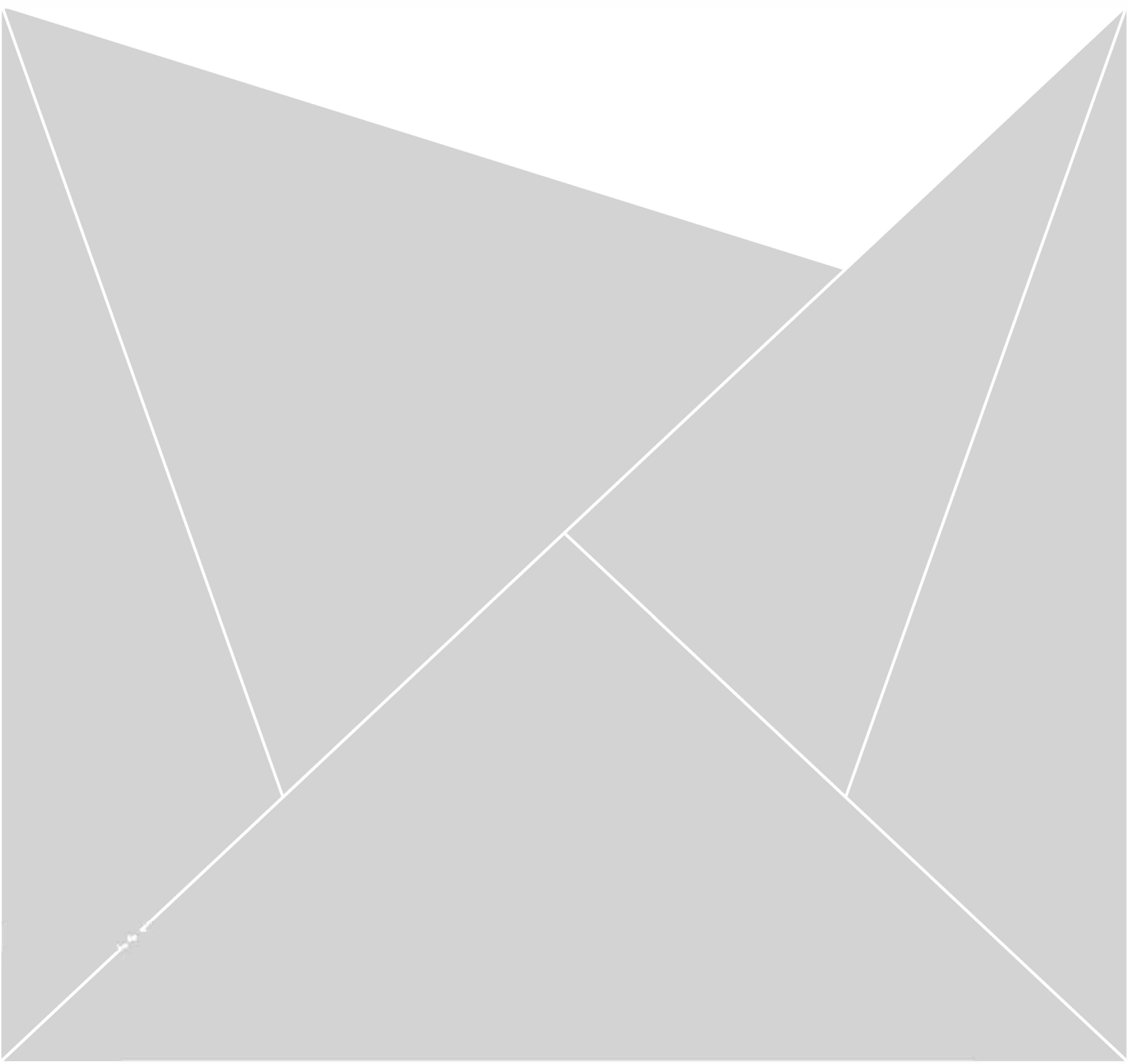


Qoltec®



User manual

EV TYPE 2 Charging Station

3-phase 22kW

Model: 52430

Introduction

Thank you for your trust and for purchasing our product. We have made every effort to ensure that the product meets your expectations.

This manual contains important information regarding the safety and operation of the device. If you have any questions after reading this manual, please contact NTEC sp. z o.o.

Safety information

Installation requirements and safety guidelines for the EV charger

Note: Installation must be carried out in accordance with the local electrical regulations applicable in the country of installation and by a suitably qualified person.

Before installing the charger, it is essential to check the condition of the existing installation. For the charger to operate safely, reliably and in accordance with its specifications, the electrical installation must be properly prepared.

Before commissioning the installation, the installer should verify the effectiveness of the electric shock protection, the continuity of the protective conductor, the earthing parameters and the correct operation of the safety devices.

The manufacturer is not liable for the consequences of incorrect installation.

Installation requirements

1. The installation and connection of the charger must be carried out by a qualified electrician. Incorrect installation may result in damage to the device or a risk to life.
2. The EV charger should be connected to a separate, dedicated electrical circuit. It should not be connected to a circuit shared with other high-power devices.
3. In the event of an unstable mains supply, surge protection is essential – failure to use it may result in damage to the charger. It is recommended to use surge protection devices (SPDs) in the power supply system,

particularly in areas prone to mains instability, lightning strikes or frequent voltage spikes.

4. Do not use extension leads, splitters, adaptors or uncertified adaptors. The charger should only be connected to an installation that complies with local regulations and the device's specifications.
5. Check the terminals in the distribution board, cable connections and the condition of the contacts, and ensure there is no play or signs of overheating.
6. Take into account the risk of voltage drops – if the cable run is too long or the cable cross-section is incorrectly selected, these can cause slower charging, interruptions to the charging session, device errors and excessive heating of the installation.
7. Before installation, verify the mains supply parameters – in particular, that the voltage complies with the charger's requirements, the number of phases, the correct phase sequence and presence of phases, and voltage stability under load; in three-phase installations, additional consideration must be given to the risk of phase imbalance, the loss of one of the phases, and the occurrence of excessively low or high voltage on individual phases.
8. The charger should not be installed in areas at risk of flooding, on damaged or unstable surfaces (walls or poles), near heat sources, or in places where the cable or plug may be exposed to mechanical damage.

The manufacturer/supplier accepts no liability for any malfunction of the device resulting from:

1. inadequate condition of the electrical installation,
2. lack of required safety measures,
3. incorrect earthing,
4. voltage fluctuations outside the permissible range,
5. installation not in accordance with the instructions and local standards.

Safety precautions

1. Protect the device from rain and moisture – use only in covered areas; do not immerse the control module in water.

2. Do not tread on, pull, bend or tie the cable, and do not use the device if the cable is damaged.
3. Do not drop the control module or place heavy objects on it.
4. Do not use the device near sources of high temperature or outside the operating temperature range of -30°C to +55°C.
5. Do not place the device in a car or in a closed, unventilated space whilst charging.
6. The device may only be used in an installation equipped with a residual current device (RCD).
7. Do not insert your fingers or any objects into the charging port.
8. Do not use extension leads or additional adapters.
9. The device is intended solely for charging electric vehicles.
10. In the event of a fault, do not attempt to repair the device yourself – contact the retailer or a service centre.

Charger design

Figure 1 in the appendix

Product feature description

1. It features a card-swipe start function and remote start stop, and is equipped with a rechargeable IC card.
2. A reserve charging function that can be activated regularly according to the user's needs and automatically stops once fully charged.
3. Equipped with a screen displaying the estimated charging time in real time.

4. Protected against overload, overvoltage, undervoltage, short circuit and overheating, and equipped with an emergency stop function and other features.

Technical specifications

Parameter	
Model	52430
Operating voltage	220V AC–480V AC (L 1 + L2 + L3 + N + PE) 3-phase
Frequency	50Hz/60Hz
Rated power	22 kW (AC)
Current	32A
Protection rating	IP54
Material	PC + ABS
Cable length	5m
Operating temperature	-25°C to +45°C
Operating humidity	5%–95% RH
Cooling method	Natural air cooling
Display function	
Display parameters	Charging voltage, charging current, charge level, error code
Installation mode	Column (floor) or wall mounting Optional installation

Product installation

1.	Drill holes using the template	Figure 2 in the appendix
2.	Insert an M10.0 screw into the hole in the wall	Figure 3 in the appendix
3.	Remove the top cover and	Figure 4 in the appendix

	install the charging station onto the screw	
4.	Tighten the two screws below to secure the charging station	Figure 5 in the appendix
5.	Fit the top cover of the charger and tighten the cover screws to complete the installation process.	Figure 6 in the appendix

Specification of the electrical box at the input

1. The power distribution box at the input of each AC charging panel should be equipped with a sealed circuit breaker with a rated current of not less than 40A.
2. Select a moulded case circuit breaker (MCCB) rated for the current of the AC charging stack (32A required for a single AC stack).
3. Power cables for AC charging stations (cables between circuit breakers and AC stations) must have a rated capacity of at least 32 A. Single-phase power supply is recommended. The recommended voltage range is AC 230 V $\pm 10\%$.
4. 50Hz power supply, use a 6 mm² copper core cable: When installing AC charging modules, ensure that the PE conductors are correctly earthed.

Wiring instructions

Method 1

Figure 7 in the appendix

If a power distribution box is used, the L1, L2, L3, N and PE terminals of the plug's input cable correspond to the L1, L2, L3, N and PE terminals of the circuit breaker, respectively.

Method 2

Figure 8 in the appendix

If the connector is connected, connect both ends. Please note that L 1, L2, L3 N, PE correspond to each other Crimping pliers ensure good contact on the crimp connector.

Fault indicator display

Indicator light: Blue, always on: Figure 9 in the appendix

Charging/charging complete: Indicator LED: green (flashing/steady)

Figure 10 in the appendix

Error: Indicator light: flashing red

Figure 11 in the appendix

Charging instructions

1. Ensure that the charging station is correctly connected to the power supply

Figure 12 in the appendix

2. Plug in the charger. Connect the on-board charging interface.

Figure 13 in the appendix

3. To start, use the magnetic card or the app.

Figure 14 in the appendix

4. Tap the app or swipe the card to finish

Figure 14 in the appendix

5. Unplug the charger

Figure 15 in the appendix

6. Remove the charger plug. Reconnect it

Figure 16 in the appendix

Wi-Fi/wireless setup [for the APP version]

Figure 17 in the appendix

The EV charger (WIFI model) supports wireless charging monitoring and control. Wireless charging monitoring and control requires the user to have a local router (2.4G) available, as well as a smartphone capable of running the Tuya app.

Wi-Fi Quick Start Guide

1. Download the Tuya app from Google Play or the iPhone App Store. (Figure 18 in the appendix)
2. Connect the EV charger – please note that the charger only searches for a connection within the first 30 seconds of being switched on. To reset the connection search via the smartphone app (Wi-Fi), see below:

Downloading the app

Figure 19 in the appendix

Step 1: Scan the QR code for the app store to download the app: Smart Life

Figure 20 in the appendix

Step 2: Click the link

Figure 21 in the appendix

Step 3: Click to download and install

Add device [for the app version]

1. Open the app
Figure 22 in the appendix
2. Add equipment
Figure 23 in the appendix
3. In the top right-hand corner, select Add device
Figure 23 in the appendix
4. Access permissions (You must allow the app to access your mobile phone)

5. Device search (The first connection to the device requires the mobile phone and the device to be on the same Wi-Fi network).

APP function [For the APP version]

1. Charging Swipe right to the bottom and enable charging

Figure 26 in the appendix

2. Billing log

Figure 27 in the appendix

3. Adjust time (Selecting the time)

Figure 28 in the appendix

4. Current adjustment (Slide up and down to set the charging current)

Figure 29 in the appendix

Share the app (Share the app link with your family)

5. Transfer APP user

Figure 30 in the appendix

6. Ability to connect and disconnect the charging device via the app

Figure 31 in the appendix

Error codes

Error code	Protection	Solution
ERROR-A	Overheating protection	1. Check the load current; if it is too high. 2. Disconnect the EV charger connector and the mains plug, then try again once it has cooled down; if error -A persists, contact your supplier.
Error -B	CP circuit short	1. Disconnect the EV charger connector and the power plug, then reconnect the power plug; 2. If the LCD screen does not display the Error-B message, there is a CP short circuit at the rear of the vehicle; 3. If Error B is still displayed on the LCD screen, contact the technical department.

Error -C	Overvoltage protection	1. Check whether the supply voltage exceeds the protection voltage: GB/T Type 1 and Type 2 – no more than 275V. 2. If the voltage at the power supply terminal is too high, wait until the supply voltage returns to normal. 3. If the supply voltage is stable but the EV charger still displays error -C, please contact technical support.
Error -D	Undervoltage protection	1. Check that the supply voltage exceeds the protection voltage; GB/T Type 1 and Type 2 do not exceed 85V. 2. If the voltage at the power supply terminals is too low, wait until the supply voltage returns to normal. 3. If the voltage at the power supply terminals is stable but the EV charger still displays ERROR-D, please contact the technical department
Error -E	Earthing	Check that the earth cable is connected.
Error -F	Short-circuit protection	1. Disconnect the EV charger connector and the mains plug, then reconnect the mains plug: 2. If the EV charger can be used normally, there is a short circuit at the rear of the vehicle.
Error -G	Leakage protection	1. Disconnect the EV charger connector and the power plug, then reconnect the power plug: 2. If the EV charger can be used normally, there is a ground fault at the rear of the vehicle; 3. If the LCD screen still displays the message Error-G;
Error -H	Other	Contact technical support

Device safety features

Leakage current protection

The device monitors leakage currents and, if an anomaly is detected, immediately stops charging, protecting the user from electric shock and minimising the risk of damage to the installation.

Overcurrent protection

The charger monitors current draw and, if permissible limits are exceeded, automatically reduces power or stops operation, preventing cable overheating and damage to the electrical installation.

Surge protection

In the event of a sudden voltage surge (e.g. mains spikes or lightning strikes), the device protects its components by cutting off the power supply, thereby reducing the risk of permanent damage.

Undervoltage protection

If the supply voltage drops below a safe level, the charger stops operating, thereby preventing unstable operation, charging errors and excessive strain on the system.

Temperature protection

The device monitors the operating temperature and, if it is exceeded, automatically reduces the power or interrupts charging, protecting the components from overheating and extending their service life.

Earthing

The charger requires the installation to be properly earthed. If a fault is detected in the protective earth (PE) conductor, the device may block the charging process, ensuring user safety.

Maintenance

1. Keep the charger clean by using a soft, dry cloth to remove dust and dirt. Do not use chemicals.
2. Regularly check the power cables and connectors for damage, such as fraying, cracks or loose connections.
3. Ensure that the ventilation openings are clean and unobstructed to ensure proper cooling.
4. Avoid contact with water or other liquids to prevent electrical damage.

Disposal

This product is subject to the regulations on the disposal of electrical and electronic equipment (WEEE). Take it to an e-waste collection point that ensures safe recycling in accordance with GPSR standards. Check where the nearest e-waste collection points are located. If you have any questions regarding disposal, please contact the manufacturer or an authorised service centre.

Warranty and service information

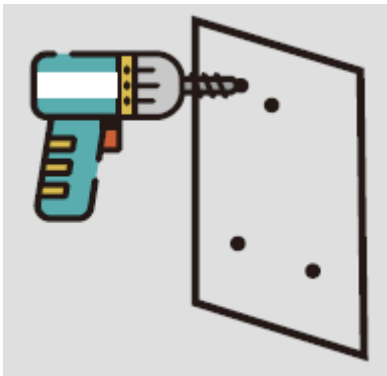
The product is covered by a 24-month manufacturer's warranty, effective from the date of purchase. The warranty covers all material and manufacturing defects. Please contact our service department at in the event of any issues with the device to ensure prompt and professional assistance. The warranty does not cover damage resulting from misuse, drops, mechanical damage, unauthorised repairs or attempts at disassembly.

Attachment 1

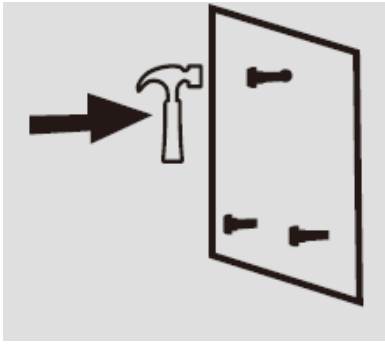
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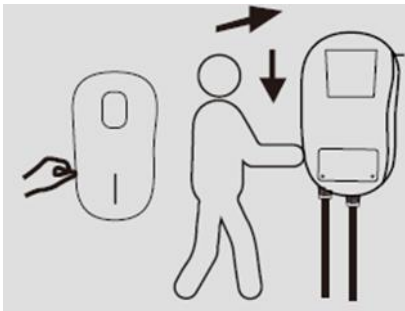
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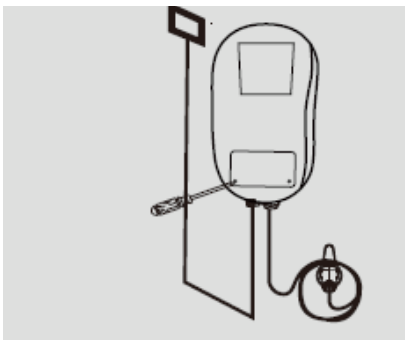
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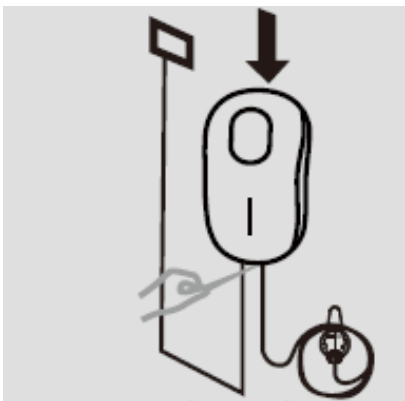
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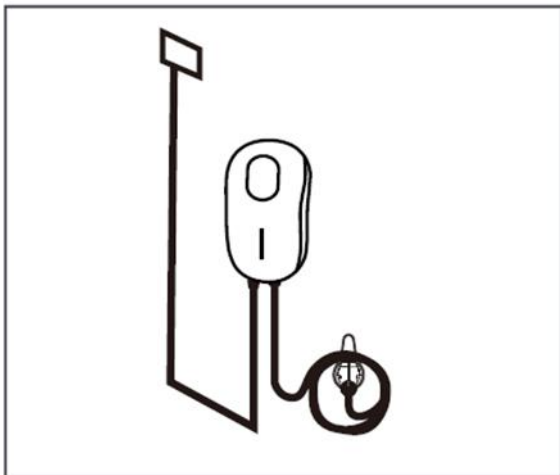
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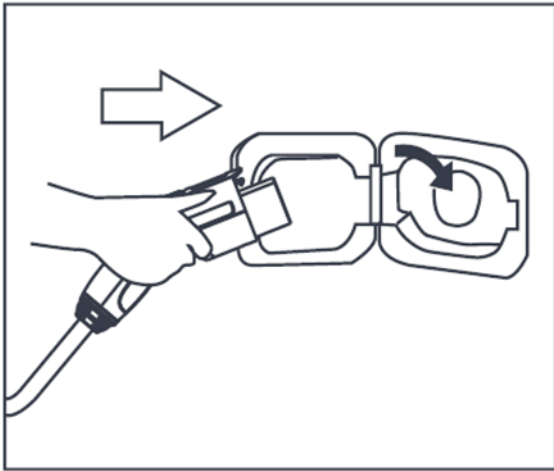
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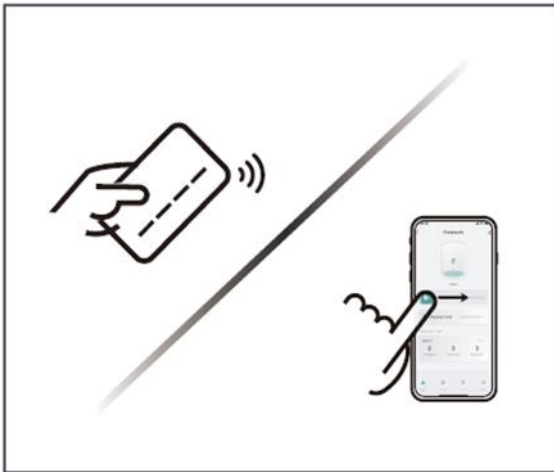
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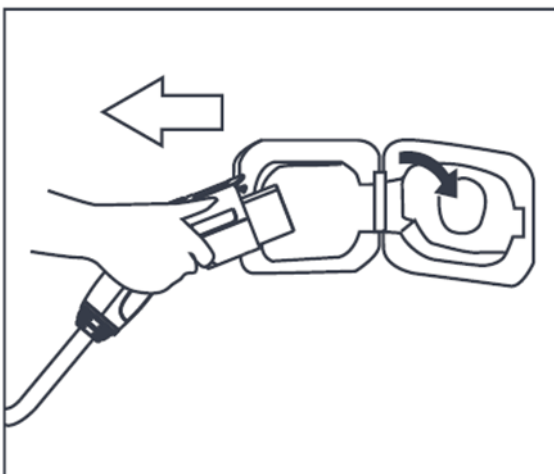
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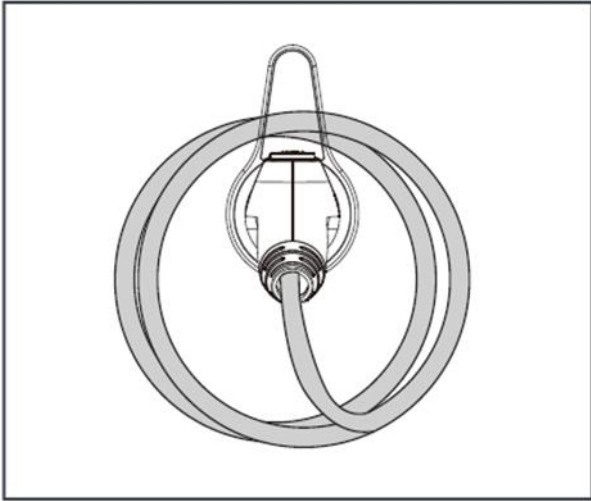
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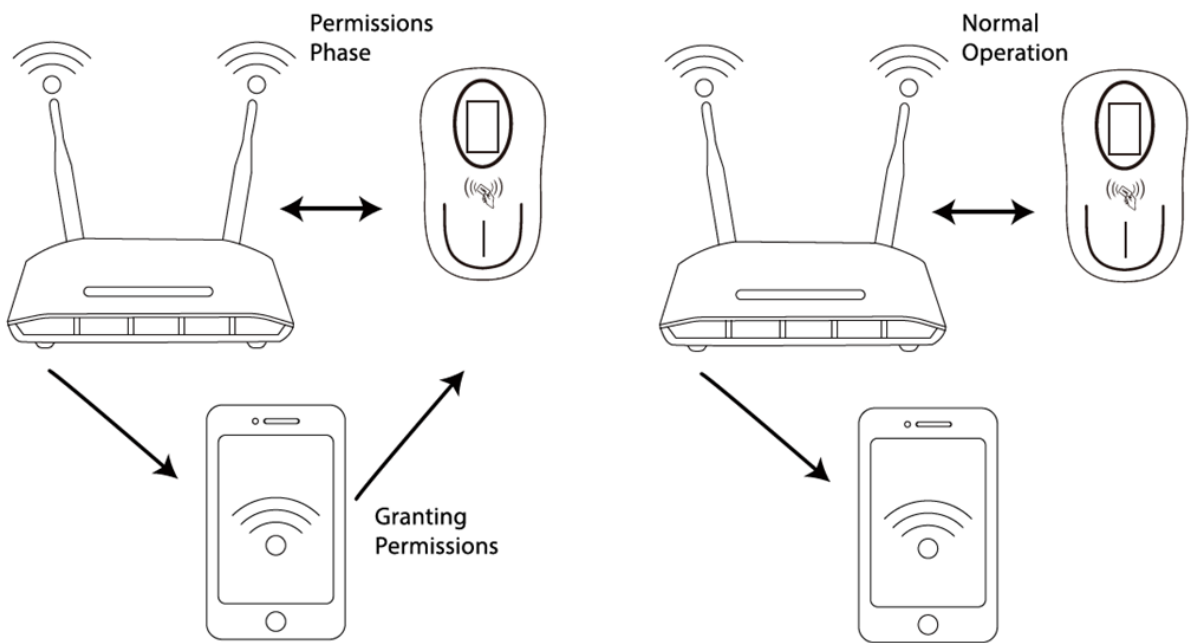
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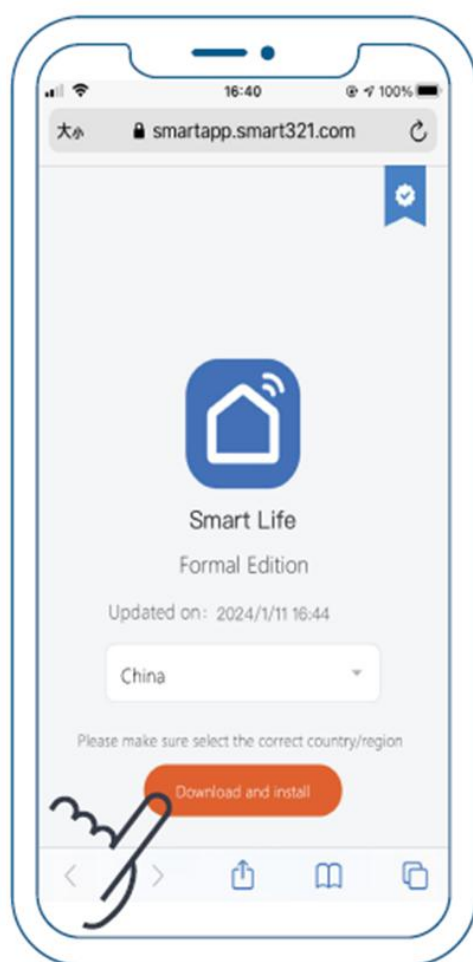
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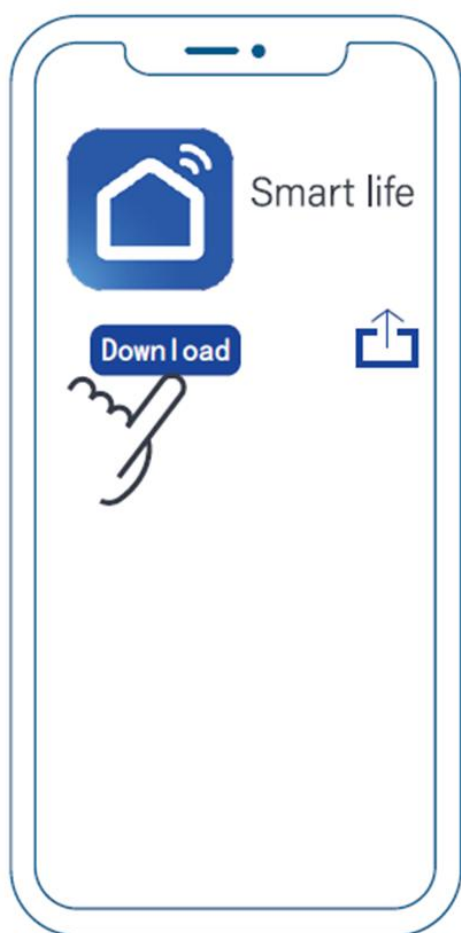
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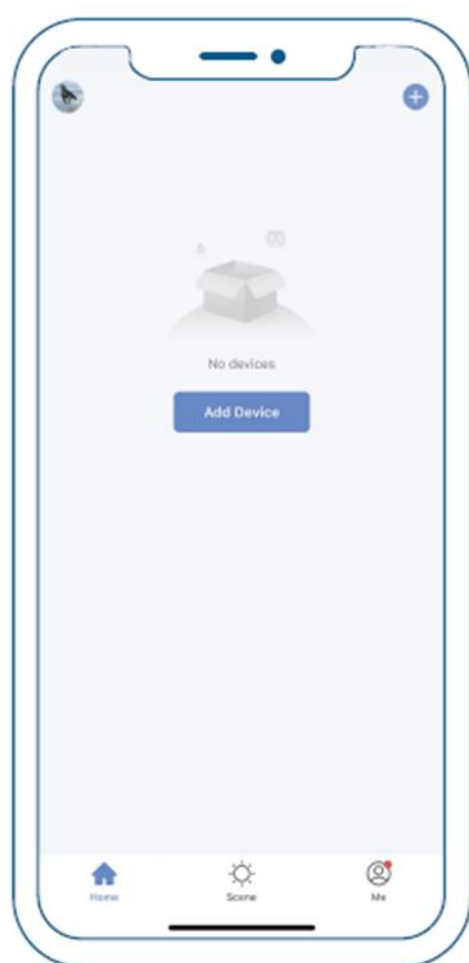
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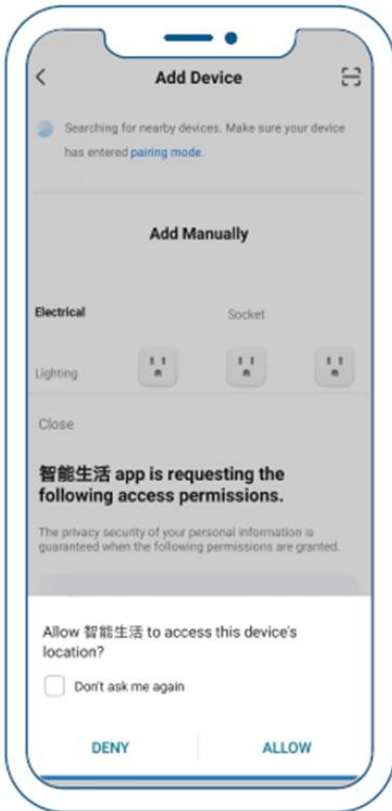


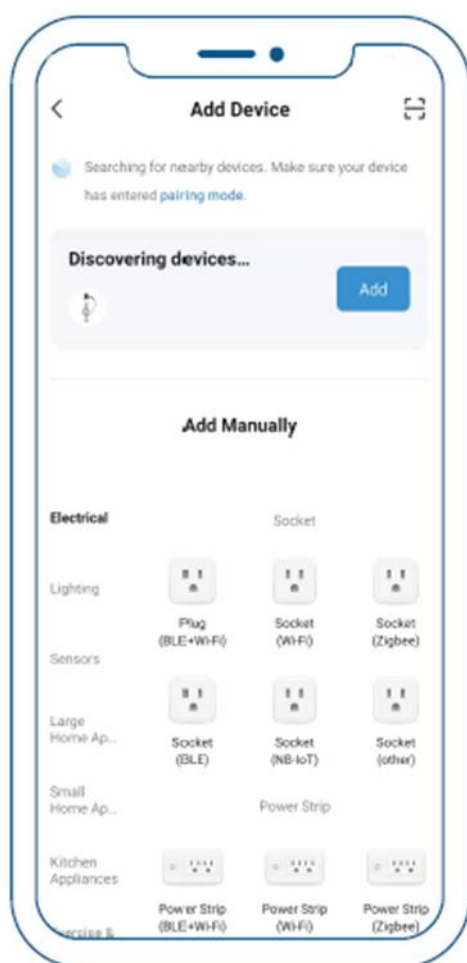
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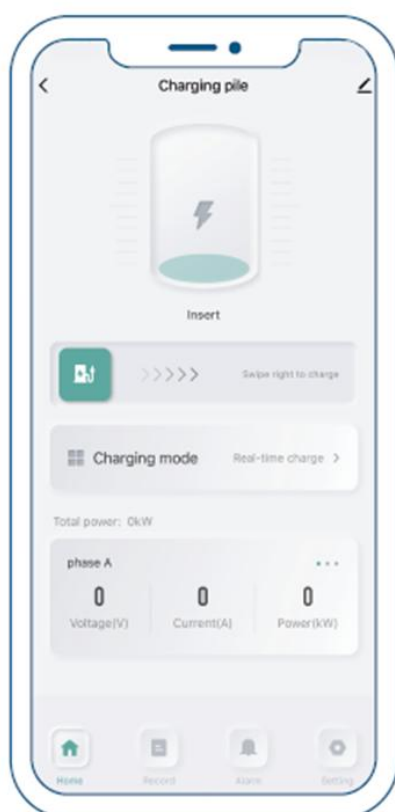








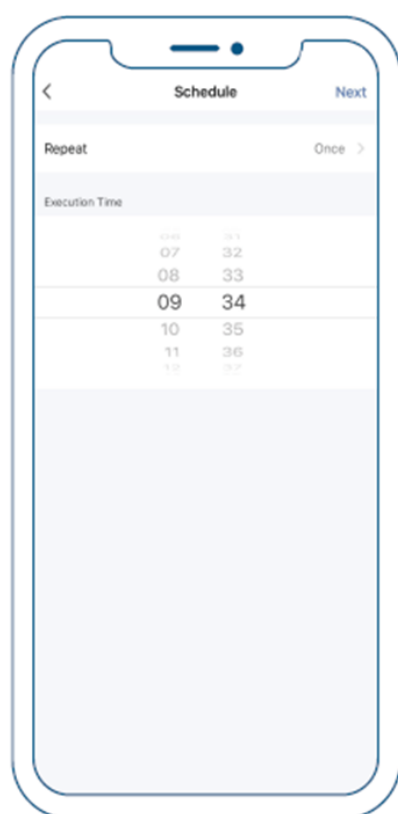




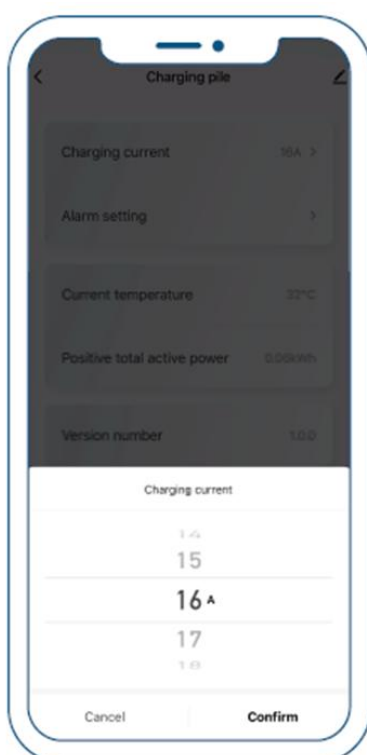
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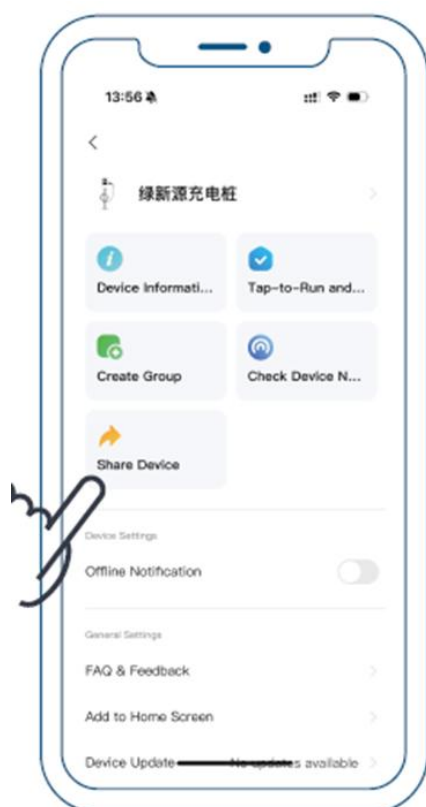
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