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# Portable AC EV Charger ZQ1 EU STANDARD

(Mode2)

## User Manual

20241216-V1.1



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# 1. Product Overview

## 1.1 Introduction

This product is an AC charger pile with single-phase or double fire line wire input, mainly used for AC charging of various electric vehicles. This product consists of a control board, Power board, etc. With multiple charging protection, Bluetooth/WIFI communication (optional). This product adopts industrial design principles, with easy installation, flexible to configuration, quick to deploy, compact in size, can be combined with the charging gun housing to create a portable charging gun with an integrated gun head design.

## 1.2 Product Features

Product Dimensions: 257.1mm\*184.5mm\*58mm

Built-in High-Performance MCU For Stable Performance

Multiple Protection: High-Temperature, Over-Voltage, Under-Voltage, Over-Current, Leakage-Current, etc

Display Mode: RGB LED light

Support reservation charging






Support WIFI+Bluetooth Communication Mode (Optional)

Support APP Control (Optional)

## 1.3 Application Field

Private new energy vehicle single-phase or three-phase AC charging pile.

# 2. Safety Cautions

-  Ensure power is disconnected during installation and replacement of the charger to prevent electric shock.
-  The charger cable must be firmly connected and well insulated. Loose or damaged connections can cause circuit failures, and in severe cases, may result in personal injury or fire.
-  Do not flush the charger with water.
-  Any fault occurs that may affect safety must be resolved by professional maintenance personnel.
-  Our company is not liable for any loss resulting from failure to follow safety instructions.

### 3. Technical Parameter

Category	Item	Specification		Remark
Electrical Parameter	Output Power	3.5KW	7KW	
	Output Current	16A	32A	
	Output Voltage	AC 230 V		
	Input Frequency	50Hz		
	Input Voltage	AC 230 V		
Connector Mechanical Lifespan		No-Load Plug In/Plug Out > 10000 Times		
Communication	Bluetooth & WiFi			Optional
User Interface	Display Screen	N/A		
	Indicator Light	RGB LED Light		
Protection Function	Over-Voltage	Yes		
	Under-Voltage	Yes		
	Over-Current	Yes		
	Leakage Protection	A/A+DC6mA		Optional
	Over-Temperature	Yes		
	Ground Fault	Yes		
Materials	Lightning Protection	Yes		
	Box Housing	Fireproof PC		
	Connector Housing	PC+PA66+GF25%		
	Metal Conductor	Silver-Plated Copper		
	Cable Material	Flame Retardant Grade V0		
Ingress protection	Cable Length	5M		
		IP55		
Environmental indicators	Usage Scenarios	Indoor/Outdoor		
	Ambient Temperature	-30°C~+50°C		
	Ambient Humidity	5%~95% No Condensation		
	Work Altitude	<2000m		
	Cooling Method	Natural Cooling		
Storage Temperature		-40°C ~ + 85°C		
Start Method		Plug And Play Charging, APP Control		Optional
Reference Standards		IEC 61851-1、IEC 62752		

## 4. Usage Instructions

### 4.1 Installation Environment Requirements

1. Ensure the socket used with the charger can bear the electricity load, and the power supply contacts are in good contact.
2. Ensure that the ambient temperature is within the range of -30°C~+50°C. Keep away from open flames or baked goods, avoid high temperature and direct sunlight, handle with care to avoid falling.
3. The installation site should be free from violent vibration, flammable or explosive materials, and should be well-ventilated. Leave enough space for heat dissipation and ventilation. The charger should be placed away from traffic routes to prevent crushing.
4. While the charger has a IP55 protection rating, seals may deteriorate over time, reducing protection. Avoid placing it in low-lying areas or areas prone to water accumulation to avoid electric leakage. And do not exceed an altitude of 2000m for the installation.

### 4.2 Plug And Charge

Firstly, unlock the vehicle's charging port and open the cover, then pick up the charging connector and plug it into the vehicle's charging port. Once the vehicle recognizes the connection, will start charging automatically.

### 4.3 Bluetooth&WiFi APP Usage

#### 4.3.1 How To Download And Install Tuya Smart Home APP

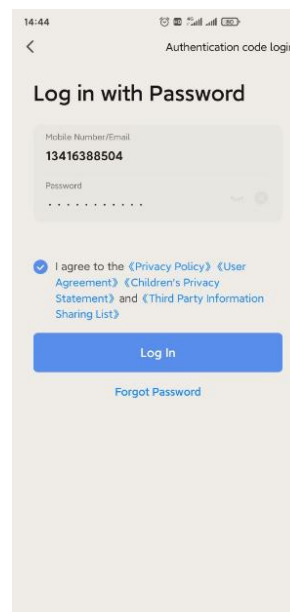
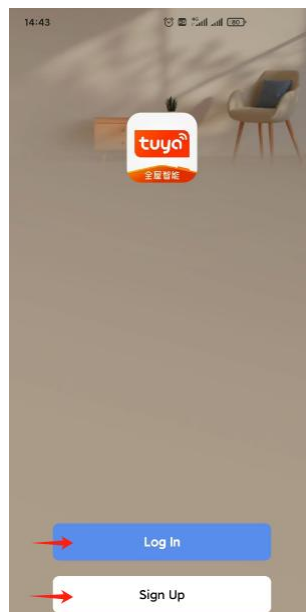


- Step1:Open the App Store on your phone, as shown on the left. Then enter the keyword "tuya" to search.
- Step2:Find the "Tuya Smart Home" APP in the search list and click “ Install”, and the system will download and install it automatically .

After APP installation, you need to register an account and activate it to log in and start using the Tuya Smart Home app. Find the "Tuya Smart Home" icon on the mobile desktop and click to open the app to start using it.



Click on this icon to launch the app

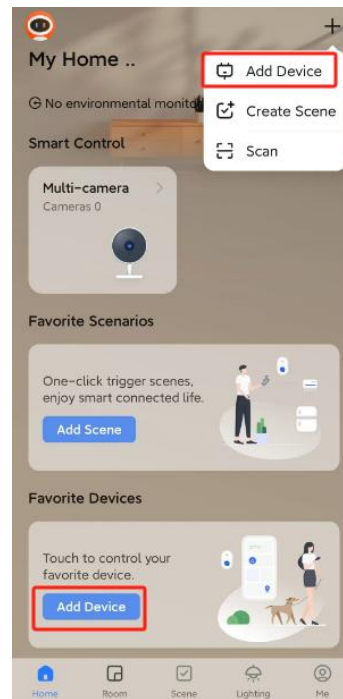


### 4.3.2 How To Connect Charger To The Network

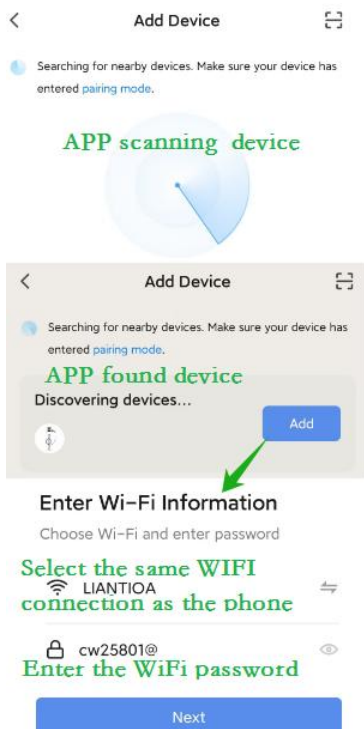


Select and enable WIFI and Bluetooth connection functions in the dropdown menu of your phone, as indicated by the red circled icons in the following figure. The charging station and mobile phone need to be connected to the same WIFI signal.

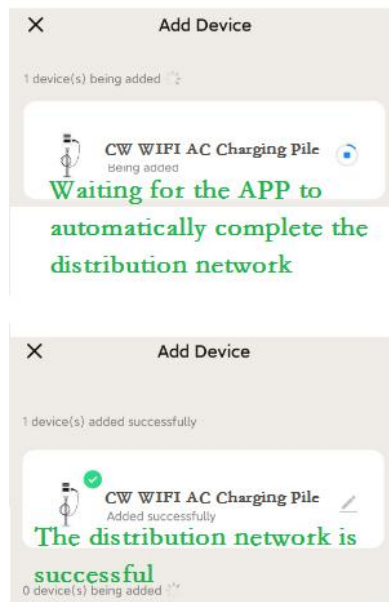
Step 1



Step 2



Step 3



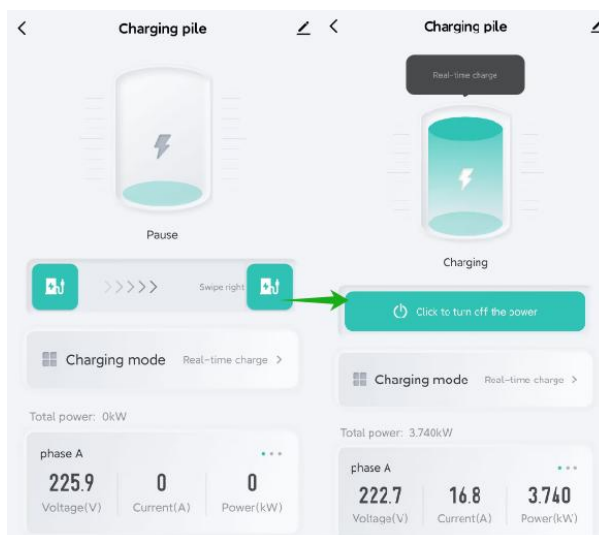
Step 4



### 4.3.3 How To Operate APP

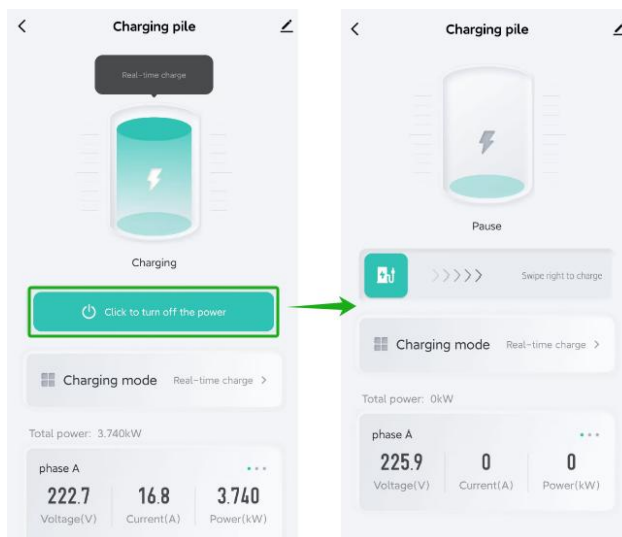
#### 4.3.3.1 Start Charging With The APP

Swipe the slider to the right to start charging. The APP will display “charging” and the charging voltage. As shown in the right image.

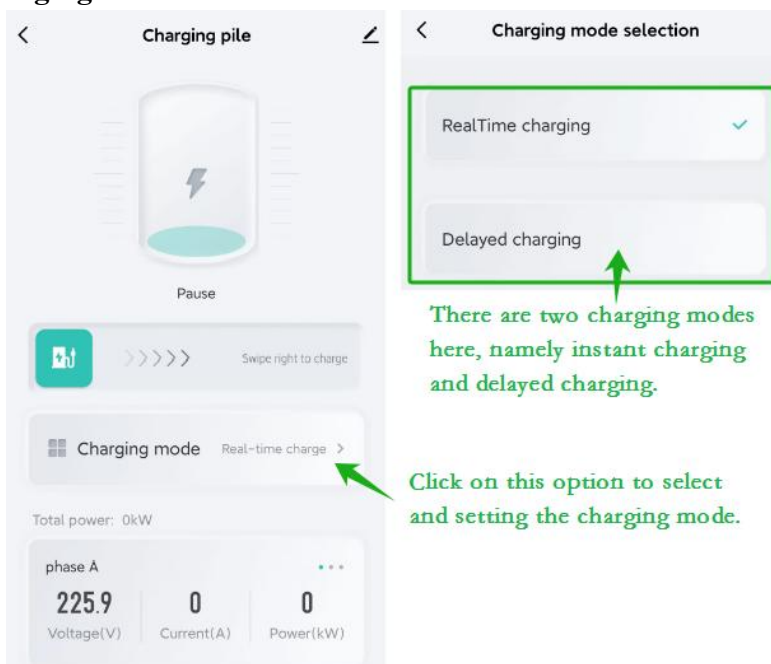


#### 4.3.3.2 Stop Charging With The APP

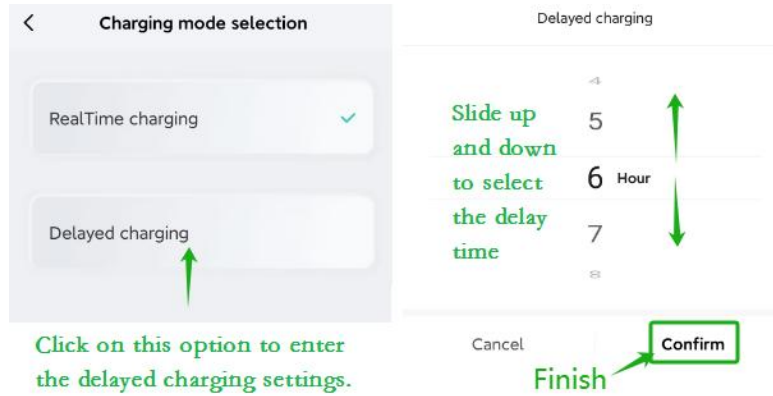
As shown in the figure on the right, click the button “Click to turn off the power” to stop charging.



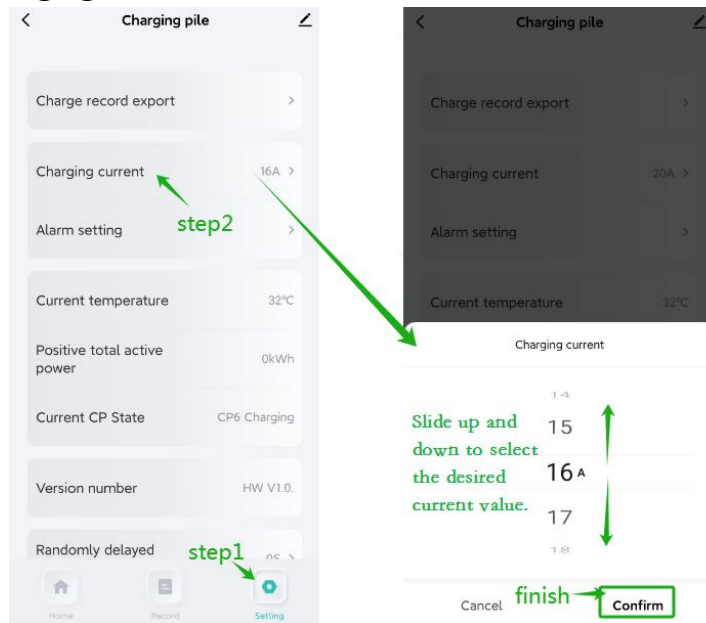
#### 4.3.3.3 Set The Charging Mode With The APP



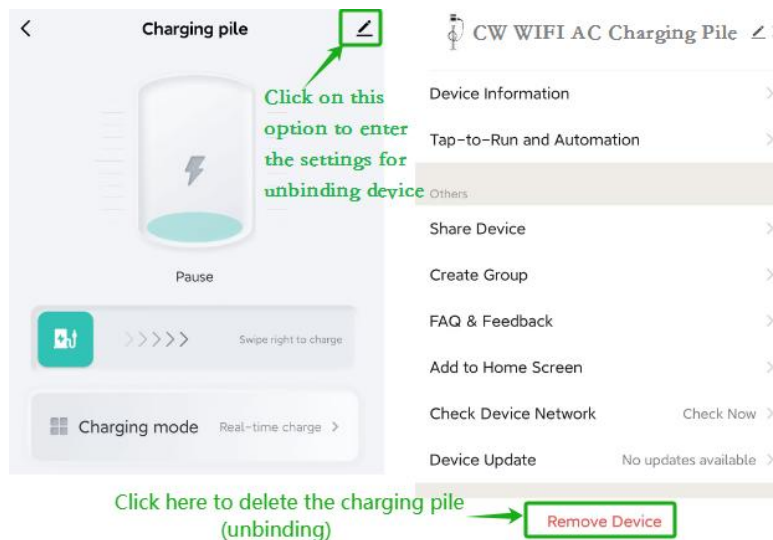
### 4.3.3.4 Set Up Reservation For Charging With The APP



### 4.3.3.5 Set The Charging Current With The APP



### 4.3.3.6 Unbind Charger



If you want to give the charger to someone else for use, you need to unbind the charger from the phone being used first.

## 5. Wiring Method

An independent power circuit shall be provided for the charger to avoid sharing with other electrical equipment. The power cord meets the corresponding rated output power. In order to prevent the risk of electric shock, the socket used with the charger shall be well connected with the ground wire.

### 5.1 How To Connect The Power Cord

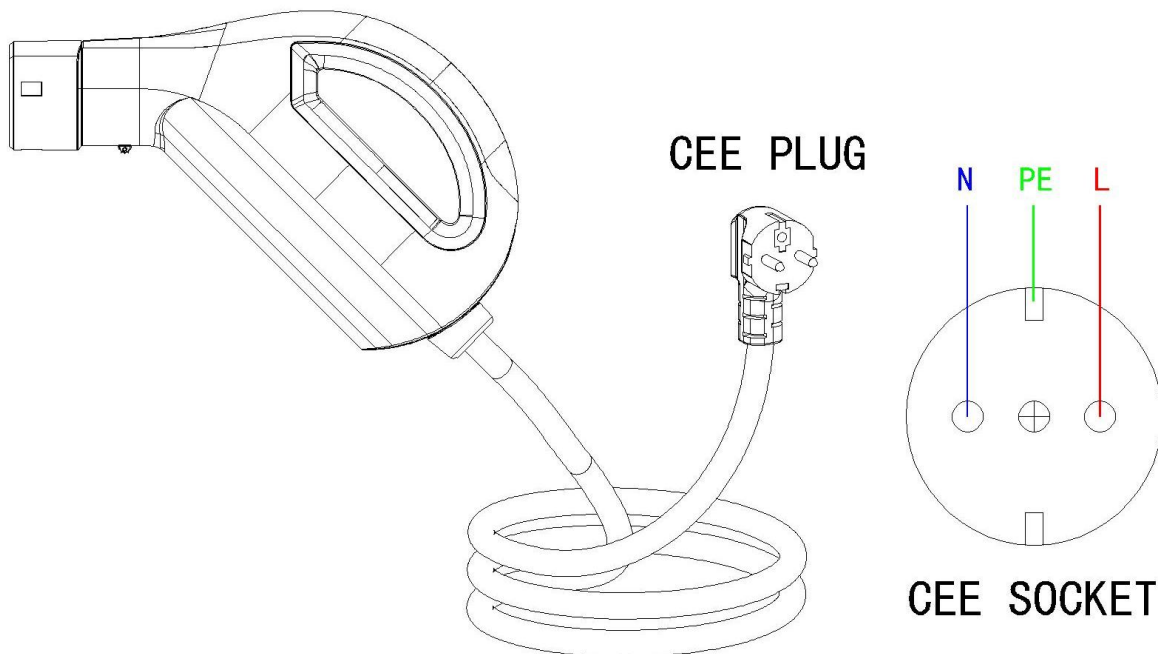
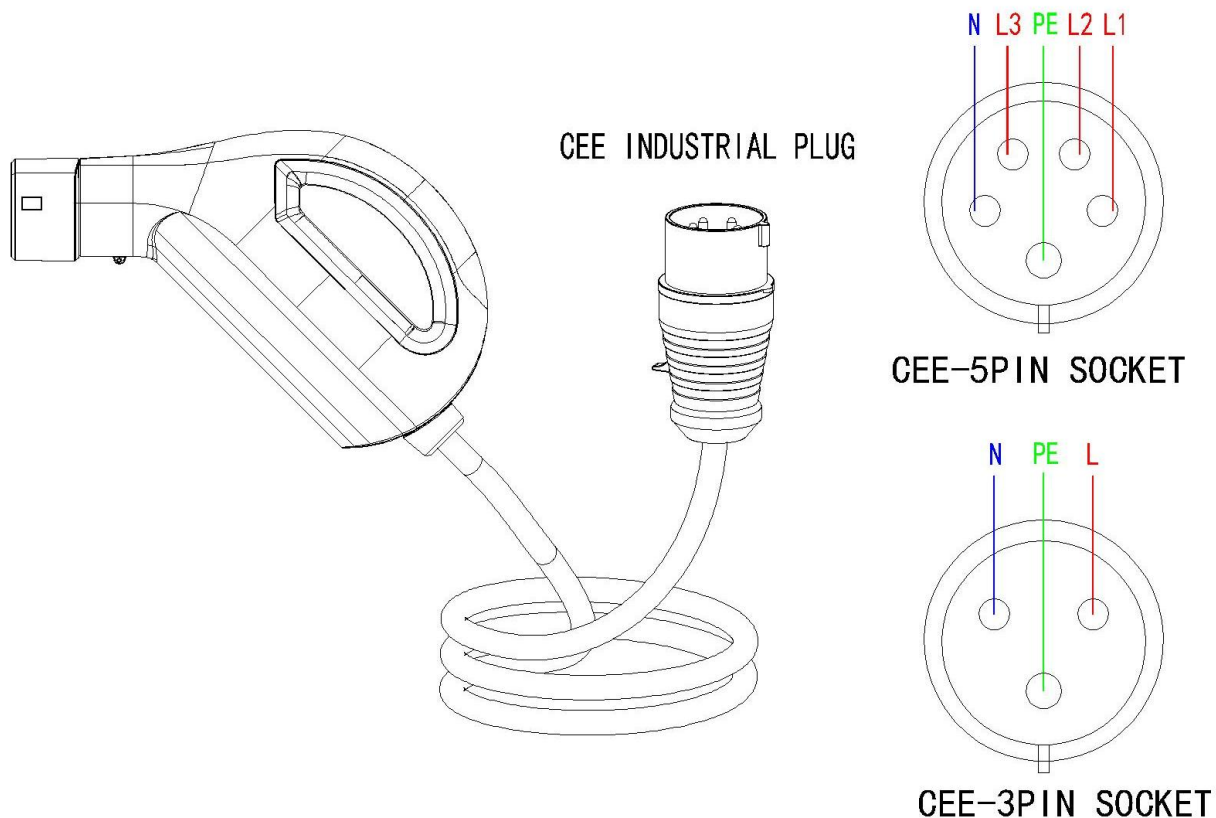


Diagram of single-phase wiring



Wiring method for industrial plug

## 6. LED Light Instructions

Color	Frequency	Indication
Red	Flashing	Grounding fault
Yellow	Flashing	CP fault
Yellow	Solid	Over-current
Blue/Red	Single alternating cycle	Over-voltage
Green/Red	Single alternating cycle	Under-voltage
Yellow/Red	Single alternating cycle	Over-temperature
Red	Solid	Leakage
Green	Solid	Charging completed
Green	Flashing	Charging
Blue	Solid	Connector inserted
White	Solid	Connector not inserted

## 7. Troubleshooting

Trouble	Probable cause	Solution
The LED light is not on	The power supply is not connected properly	Check whether the power socket has electricity and is in good contact.
Unable to start charging	The charging connector is not fully connected	Check whether the charging connector is firmly connected with the vehicle socket, and ensure that the charging connector is fully connected to the vehicle socket.
Charging current is less than rated value	Equipment failure or battery near full	When the vehicle battery is nearly full, the charging current will decrease, which is a normal situation. If not, please contact the customer service center for maintenance.
The red warning light is on	Major failure	<ol style="list-style-type: none"> <li>1.Short circuit: Check whether the L/N line is short-circuited. If not, re-plug the connector and reset it.</li> <li>2.Leakage: Check whether the L/N line is well insulated to the ground..</li> <li>3.Grounding: Check whether the PE line is well grounded.</li> </ol>
	General failure	<ol style="list-style-type: none"> <li>1.Under-voltage: Check whether the AC input voltage is normal.</li> <li>2.Over-voltage: Check whether the AC input voltage is normal.</li> <li>3.Over-current: Check whether the L/N line is short-circuited. If not, re-plug the connector and reset it.</li> <li>4.Over-temperature: Stop charging and wait for the internal temperature of the charger to return to normal.</li> </ol>

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## 8. After-sales Service

✂During the warranty period, the company provides free after-sales service for product quality issues.

**Fees apply for the following cases:**

1. Beyond the 2 years warranty period.
2. Faults caused by improper use.
3. Damage caused by improper use environment, poor storage and natural disasters.
4. The product is dismantled, modified and equipped with spare parts by unauthorized persons (including users).
5. Replacement requires an intact appearance without scratches or deformation.
6. Damage caused by force majeure such as fire, flood, lightning and earthquake.