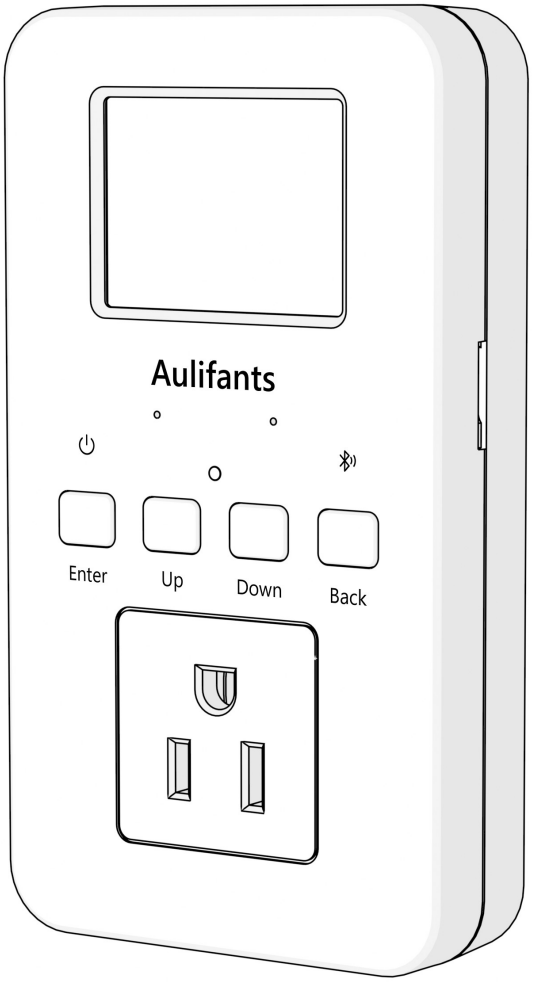
Smart Meter Socket

Model: LP405



USER MANUAL

AULIFANTS

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Read Chapter 1 (Safety) before using the product.

01 Safety

Read this chapter carefully before use. *The Smart Meter Socket (LP405) connects to an AC 110–240 V supply and switches the load. Improper use may cause electric shock, fire, or damage to the product.*

1.1 Electrical Safety

- Installation and use must comply with local electrical codes. If you are unsure about the wall outlet wiring, consult a qualified electrician first.
- Maximum load current: **25 A**. Do not overload. Keep the total current of connected appliances within the rating.
- Make sure the product plug fits the wall outlet firmly. Do not use damaged or overheating outlets or extension cords.
- Do not plug in, unplug, or operate the product with wet hands. Indoor use only. Keep away from water and other liquids.
- Do not open the enclosure while the product is powered. There are no user-serviceable parts inside.
- If the product is cracked, smells, smokes, or overheats abnormally, disconnect power immediately and contact support.

Note — operation at 25 A: *Continuous operation at the 25 A maximum can produce significant heat buildup. Long-term use at 25 A is not recommended. The enclosure is made of flame-retardant PC (polycarbonate) material and will not burn.*

1.2 Confirm the Load Is Off (Important)

- The product switches the load with an internal relay. In rare cases the relay contacts can stick, leaving the load powered.
- **After every OFF operation, verify that the load is actually powered off.** If the load stays energized, unplug the product immediately and contact support.

1.3 Wireless & RF

- The product contains a Wi-Fi/Bluetooth module. Keep a distance of **at least 20 cm** between the product and the human body during use.
- Do not use the product where radio devices are prohibited (for example hospitals or aircraft). See Chapter 8 for regulatory statements.

1.4 Micro SD Card

- Power off the product before inserting or removing the SD card.
- The SD card is a small part. Keep it away from children to prevent swallowing.

1.5 Environment

- Use within −10 ~ 50 °C and below 95% RH (non-condensing). Avoid high temperature, high humidity, direct sunlight, and keep away from heat and water sources.
- Do not cover the product. Keep the area around it ventilated.

1.6 Other

- The firmware and the App are updated from time to time. Screens and features may change; follow what is actually shown on your device and in the App.

02 Quick Start

Follow these steps to get started.

In the box: Smart Meter Socket × 1, User Manual × 1

Optional accessory: Micro SD card (128 MB) — included in some packages. Any Micro SDHC card (Class 6+, FAT32) can be used.

Step 1 — Power on

1. Plug the Smart Meter Socket into a wall outlet.
2. The screen turns on in about 2 seconds.
3. The device restores its last switch state (ON or OFF) from memory. If it was ON, the connected load may power up immediately.

Step 2 — Pair with the Smart Life App (first use only)

1. Install the Smart Life or Tuya app, register, and log in.
2. Make sure your phone has **Bluetooth** turned on and your router broadcasts a **2.4 GHz** Wi-Fi network.
3. Press and hold the **Back & Bluetooth Pairing** button for about 5 seconds until the green network light blinks slowly.
4. In the app, tap **+** → **Add Device**. When **LP405** appears, tap **Add**.
5. Enter your 2.4 GHz Wi-Fi password, then tap **Next** / **Done**.
6. After connecting, the device syncs the time automatically within a few seconds.

See Chapter 3 for full pairing details and troubleshooting.

Step 3 — Insert the Micro SD card

1. Power off the device (unplug it).
2. Insert a Micro SDHC card (Class 6+, FAT32) into the SD slot. A 128 MB card is included with some packages.
3. Plug the device back in.
4. Logs are written once per minute. The device must be online (time-synced) for logs to be recorded.

See Chapter 6 for the recorded files.

Step 4 — Start using

- **Turn the load ON/OFF:** press and hold **Enter & ON/OFF** for about 1 second on the device, or use the switch in the App.
- **Rates, protections, timers, and history** are configured in the Smart Life app.

Tips *- Keep the device in an open, ventilated area, at least 20 cm from your body. - If pairing does not start, unplug and replug the device, then try again.*

03 Pairing

Pair the device with the Smart Life app to control it remotely and keep the clock synchronized.

3.1 Before You Start

- A **2.4 GHz** Wi-Fi network (5 GHz is not supported).
- Your phone has **Bluetooth** turned on.
- The device is powered on.

Download the app

Smart Life and **Tuya** both work with this device. Download either app from Google Play or the App Store:

Smart Life · Google Play

Smart Life · App Store

Tuya · Google Play

Tuya · App Store

> *The screenshots in this chapter use Smart Life. Tuya works the same way.*

3.2 Pairing Steps

Step 1 — Put the device into pairing mode

Press and hold the **Back & Bluetooth Pairing** button for about 5 seconds. The green network light starts blinking slowly.

Step 2 — Find the device in the app

Open the app and tap **+** → **Add Device**. The app searches for nearby devices and lists **LP405**.

Step 3 — Add the device

Tap **LP405**. The app starts adding it automatically.

Step 4 — Select the Wi-Fi network and enter the password

Select your **2.4 GHz** network, then enter its password.

Step 5 — Wait until the device is online

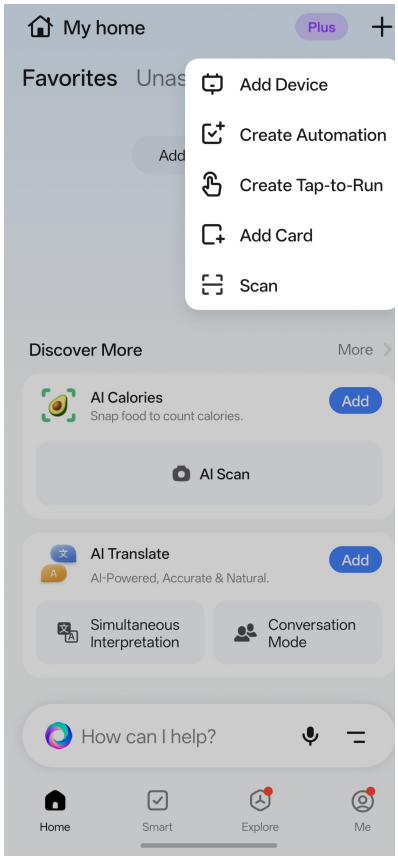
The app sends the credentials and connects the device.

Step 6 — Finish

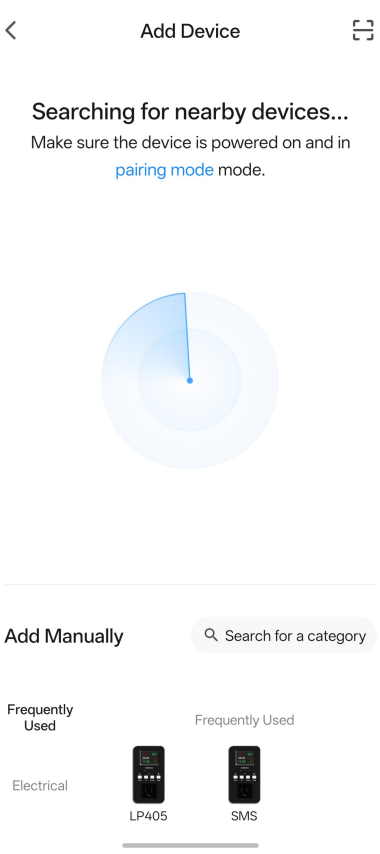
When **Device Added Successfully** appears, choose a room (optional) and tap **Done**. The device now appears on your home screen.

> ***Note:*** *The pairing window is about 3 minutes after power-on. If you miss it, unplug and replug the device, then press and hold the button again.*

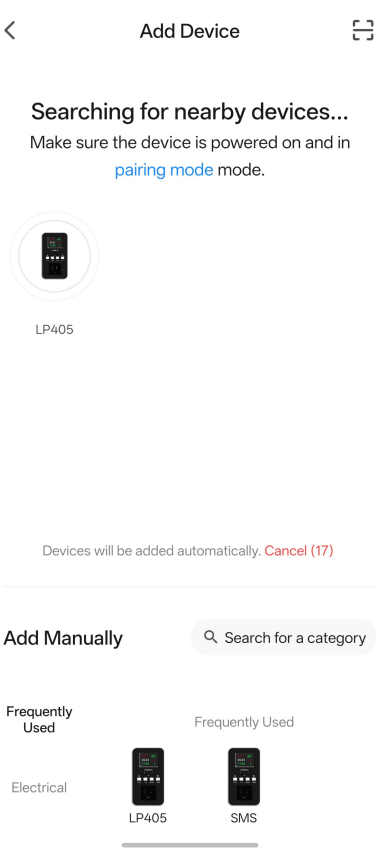
Pairing screenshots (in order):



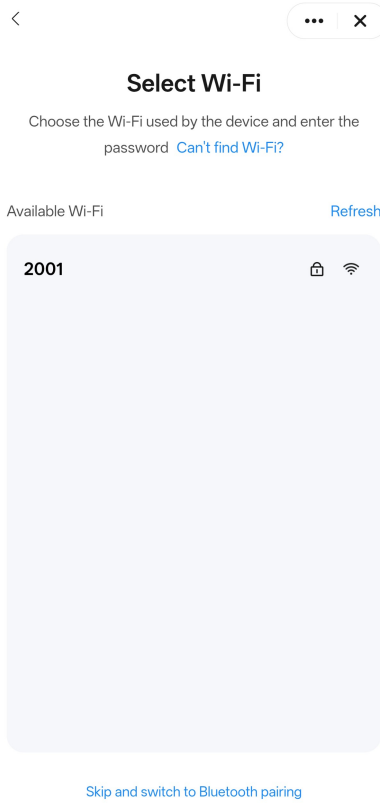
1. Tap + and open Add Device



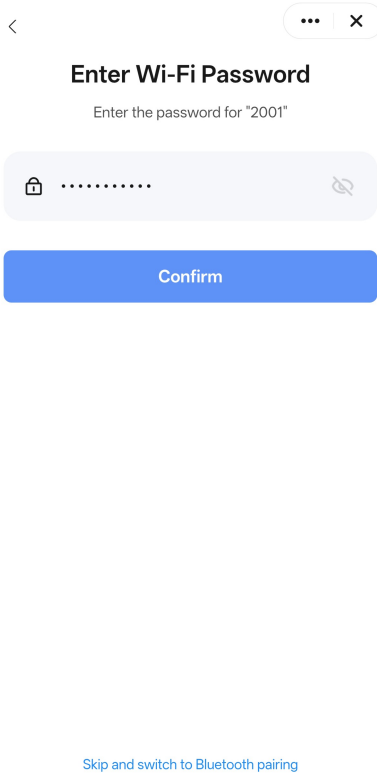
2. LP405 appears in the device list



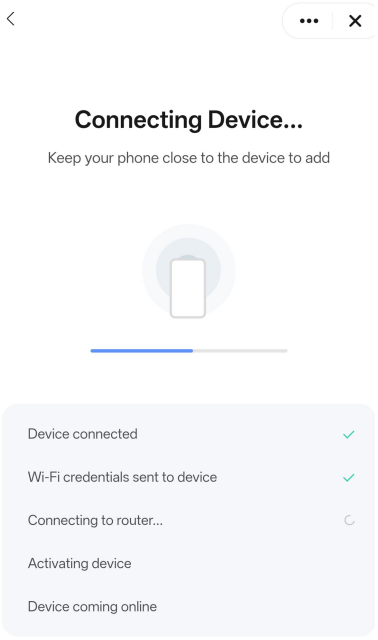
3. LP405 is being added automatically



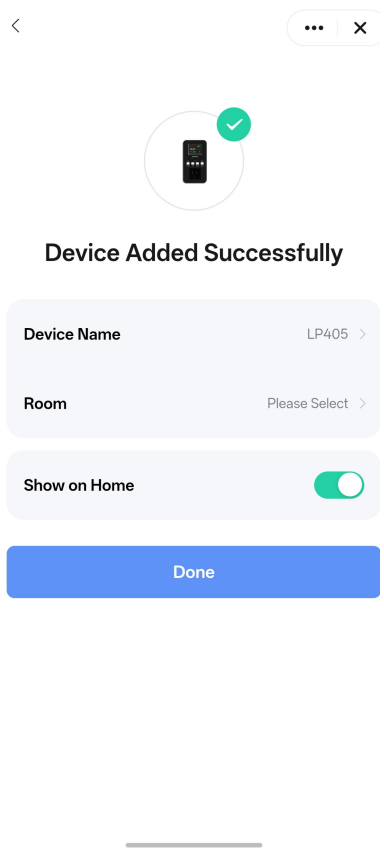
4. Select your Wi-Fi network



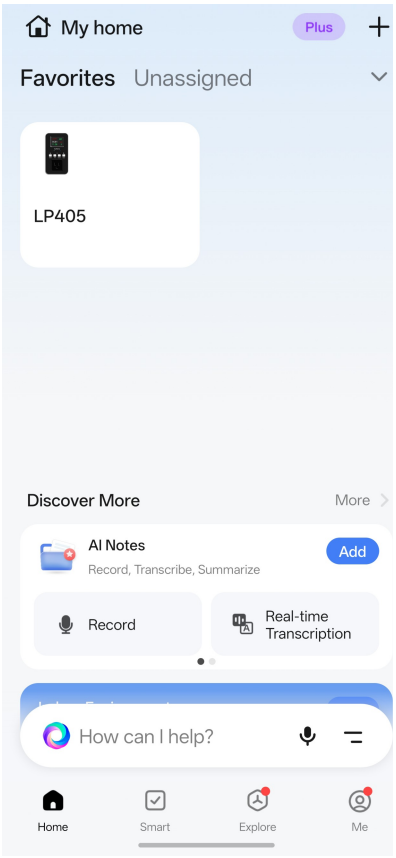
5. Enter the Wi-Fi password



6. Connecting the device



7. Device added successfully



8. LP405 on the home screen

3.3 After Pairing

- The device syncs the time automatically within a few seconds.
- The green network light turns steady on when the device is online.
- You can now switch the load, and set rates, protections, and timers from the app.

3.4 If Pairing Fails

- Confirm the phone has Bluetooth on and is near the device.
- Confirm the Wi-Fi network is **2.4 GHz** and the password is correct.
- Confirm the device is in pairing mode (green light blinking slowly); if not, unplug and replug, then press and hold the button again.
- If the app cannot find your Wi-Fi network, tap **Skip and switch to Bluetooth pairing** on the Wi-Fi screen.

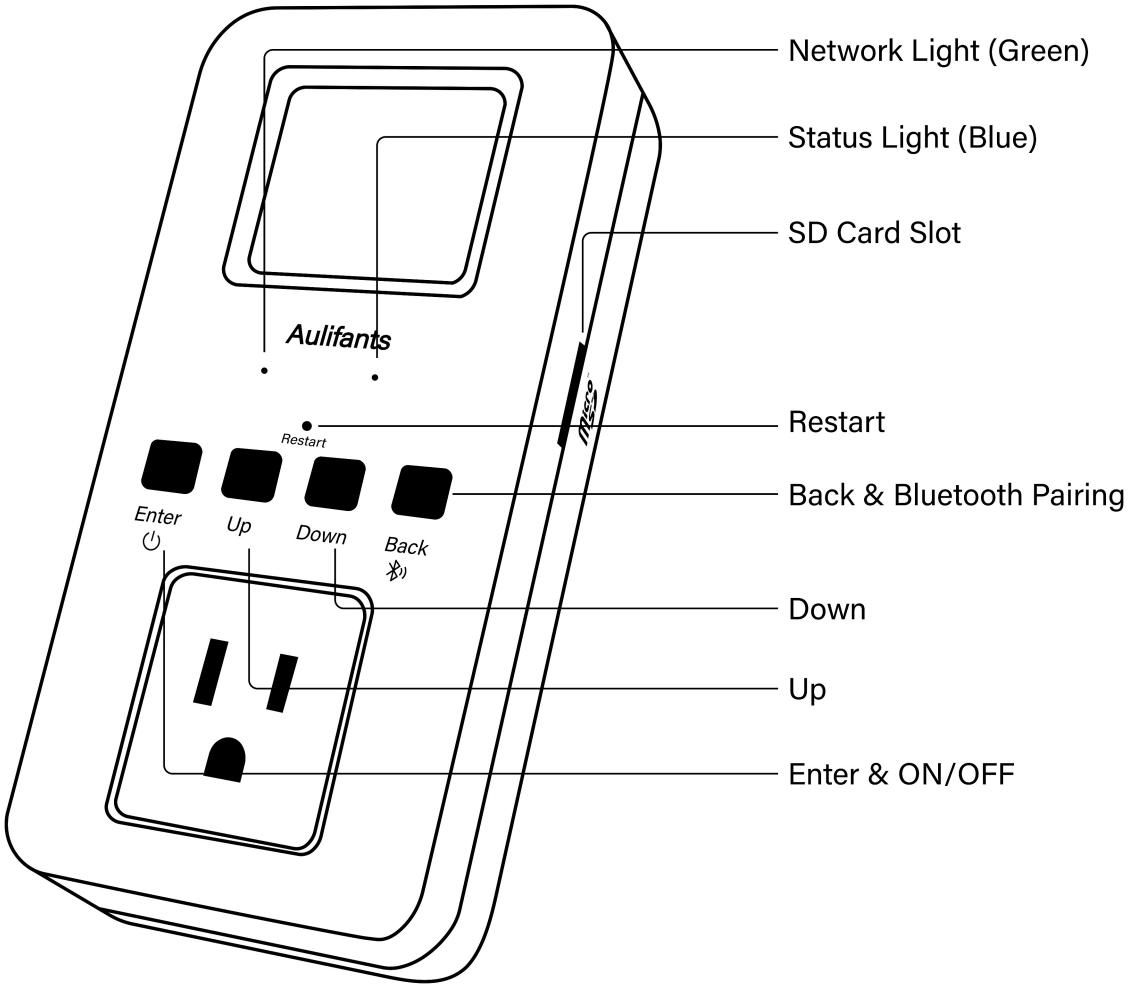
3.5 Re-pairing After a Factory Reset

A factory reset unbinds the device. To pair it again:

1. In the app, remove the device from your device list.
2. Follow the steps in 3.2 to pair it again.

04 Product & Parts

The Smart Meter Socket (LP405) measures and controls a single-phase AC load and connects to your Wi-Fi network for remote control and monitoring.



4.1 Buttons

Button	Short press	Long press
Enter & ON/OFF	Confirm / enter	Toggle the load ON or OFF (about 1 s)
Up	Previous page / move up	—
Down	Next page / move down	—
Back & Bluetooth Pairing	Back / cancel	Enter pairing mode (about 5 s)
Restart	Restart the Wi-Fi module (fixes occasional disconnection; does not clear data or settings)	—

Note: *Restart is a small recessed button. Use a straightened paperclip to press it. You will rarely need it.*

4.2 Indicator Lights

Light	State	Meaning
Network (green)	Blinking slowly	Pairing mode
Network (green)	Steady on	Connected to the internet (online)

Light	State	Meaning
Network (green)	Off	Not connected (offline)
Status (blue)	Breathing	Normal operation
Status (blue)	Blinking rapidly	A protection tripped (overload / over-voltage / under-voltage)

4.3 Micro SD Card Slot

- Insert a Micro SDHC card (Class 6+, FAT32) to store local data logs.
- Power off the device before inserting or removing the card.
- See Chapter 6 for the recorded files.

4.4 Screen

- The screen shows real-time metering and device status.
- Use **Up** / **Down** to browse pages, **Enter & ON/OFF** to confirm, and **Back** to return.

05 Specifications

Item	Value
Model	LP405 (Smart Meter Socket)
Rated voltage	AC 110–240 V
Frequency	50/60 Hz
Maximum current	25 A
Accuracy class	1.0
Network	Wi-Fi 2.4 GHz (802.11 b/g/n, 5 GHz not supported) + Bluetooth 5.2 (for pairing)
Power consumption	< 2 W
Operating temperature	−10 ~ 50 °C (14 ~ 122 °F)
Operating humidity	< 95% RH (non-condensing)
Dimensions	137 × 75 × 36 mm (L × W × H)
Data storage	Micro SDHC card (Class 6+, FAT32); internal memory for settings
Overload protection	Default 25 A, adjustable
Over/under-voltage protection	Default off, adjustable

Specifications are subject to change without notice.

06 SD Card & Data Files

The device can log data to a Micro SD card for your own records, even when you are not looking at the app.

6.1 SD Card Requirements

Item	Requirement
Type	Micro SDHC
Speed class	Class 6+ (a regular-speed card is fine; UHS high-speed cards are not required)
File system	FAT32

A 128 MB Micro SD card may be included. If your package does not include one, any Micro SDHC card (Class 6+, FAT32) works.

- Capacity guide: the data log uses about 105 KB per day, so a 128 MB card stores about 3 years. Larger cards store longer.
- Power off the device before inserting or removing the card.
- Insert the card into the **SD card slot** (labeled in the Chapter 4 diagram).
- If the card has no FAT32 file system, the device will format it automatically — **this erases everything on the card**. Use an empty card or back it up first.

6.2 Files Recorded

The device creates two CSV files per day, named by date (`DDMMYY` = day-month-year):

File	Content	Written
`DDMMYY-D.csv`	Data log (measurements)	One row per minute
`DDMMYY-E.csv`	Event log (switch changes)	One row per ON/OFF event

Example: `041126-D.csv` is the data log for 4 November 2026.

The files have no header row and can be opened with Excel or any spreadsheet/text editor.

6.3 Data Log (`DDMMYY-D.csv`)

One row per minute:

Column	Meaning	Example
Time	`HH:MM:SS`	`13:45:00`
Voltage	Line voltage	`230.5 V`
Current	Instantaneous current	`1.234 A`
Active power	Instantaneous power	`283.4 W`
Power factor	0.00–1.00	`0.98`
Accumulated usage	Total energy	`0.12 kWh`
Accumulated cost	Total cost	`$0.02`
Working time	Total load time	`4H16M`

Sample row:

```
13:45:00,230.5Volt,1.234Amp,283.4Watt,0.98,0.12kWh,$0.02,4H16M
```

6.4 Event Log (`DDMMYY-E.csv`)

One row per ON/OFF event:

Column	Meaning	Example
Time	`HH:MM:SS`	`13:45:00`
State	`ON` or `OFF`	`ON`

6.5 Important Notes

- **Logging requires an internet connection.** The device uses the network time to write logs. When the device is offline, no data is recorded. After it reconnects, logging resumes from that point — the offline period is not backfilled.
- The data log is written once per minute regardless of whether a load is connected.

07 Important Notices

7.1 Power Restore

After a power outage or replug, the device returns to its last switch state. If it was ON, the load powers up as soon as power returns — be ready for this.

7.2 Usage Limit Is One-Time

When the usage limit is reached, the device switches the load OFF and clears the limit automatically. To limit usage again, set a new limit in the app.

7.3 Time-of-Use Coverage

Any time not covered by a rate period is not billed — the cost stops increasing during those minutes. Cover all 24 hours with rate periods if you want continuous time-of-use billing.

7.4 Device Totals vs. App Sessions

The screen shows the device's lifetime totals (Energy and Fee). The app's Meter and Cost cards count from a point you start yourself. These are two different measurements and will not match.

7.5 Offline Behavior

When the device is offline:

- The SD card does not record data.
- The clock does not update.
- The fee does not accumulate.

When the connection returns, the device resumes from that point. Data from the offline period is not backfilled.

7.6 Factory Reset

A factory reset clears the cumulative energy and cost, settings, rates, and protections, and unbinds the device from the app. After a reset, remove the device in the app and pair it again — otherwise the statistics may be inaccurate. Files on the SD card are **not** deleted by a factory reset.

7.7 Screen Sleep

The screen turns off after about 2 minutes of inactivity. Press any button to wake it.

7.8 App Data

- Timers run from the cloud, so the device must be online for a scheduled action to run.
- Meter/Cost history and switch events are stored on your phone. They are not recovered if you switch phones or clear the app data.

08 Support, Website & Certification

8.1 Brand & Contact

For warranty service or support, please contact the Aulifants team:

Item	Value
Brand	AULIFANTS
Company	ZHUHAI YUEPIN TECHNOLOGY CO., LTD
Website	www.aulifants.com
Email	ericyu@aulifants.com
Address	Building 4, Hagongda Road 2, Zhuhai, China

AULIFANTS

FCC

8.2 Certification

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. If this equipment does cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of **20 cm** between the radiator and your body.