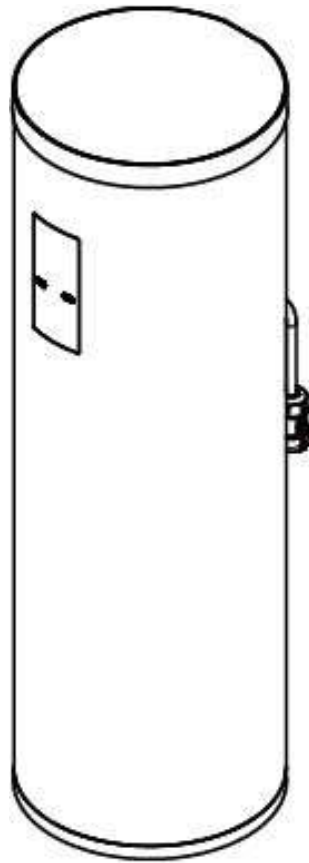




iCAN[®]

User Manual

Smart Residential Energy Storage System



Model No.: PO1-AAW1
ICV3.0.0

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1. Preface

Thank you for purchasing POMCube iCAN, a smart residential energy storage system. In order to use your device safely, efficiently and effectively, please read the User Manual thoroughly and follow the instructions provided before use. Please keep this User Manual for future reference.

POMCube reserves the right to change products information and specifications without notice. Products and specifications discussed herein are for reference purposes only. All information discussed herein may change without notice and without warranties of any kind. This document and all information discussed herein remain the sole and exclusive property of POMCube.

The iCAN system may be updated for technical reasons without prior notice. Purchasing this product indicates that you have acknowledged it and accepted it.

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2. Legal Compliance

2.1 Disposal and Recycling Information



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service, or the shop where you purchased the product.

2.2 FCC Compliance Statement

Declaration of Conformity

Model Number: PO1-AAW1
Trade Name: POMCube
Responsible Party: POMCube Inc.
Address: 19363 Brockton Ln Saratoga, CA 95070 USA
General Contact: www.pomcube.com

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.

To assure continued compliance, follow the attached installation instructions and do not make any unauthorized modifications.

CAUTION:

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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into 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.

The user may find the booklet "Something About Interference" available from FCC local regional offices helpful.

FCC Warning:

To assure continued FCC emission limit compliance, follow the attached installation instructions. This includes using the provided power cord and shielded interface cables when connecting to computer or peripheral devices. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate this device.

3. Safety Instructions

Warnings: Failure to understand and follow the instructions listed below may result in electric shock, fire, product damage and/or serious personal injury.

3.1 Personal Safety

This device shall be installed near the wall outlet and shall be easily approachable when problems occur.

- Stop use the device and disconnect it from the wall outlet immediately if the following problems occur:
 - a) Foreign matter or water gets inside the device
 - b) Outer case is broken
 - c) Any smoke, strange odor, or noise comes from the device
- Disconnect the device from the wall outlet if you will not use the device for a long time.
- Do not damage the power cord. Do not make modifications to it, place it near any hot objects, bend it excessively, twist it, pull it, place heavy objects on the top of it or wrap it into a bundle.
- Do not handle the device and its components with wet hands. Failure to observe this may result in electric shocks.
- Always disconnect all cables before moving the device. Moving the device with cables still attached may damage the cables, which will cause fire or electric shocks to occur.
- Always use genuine parts and accessories provided by POMCube Inc. Using parts and accessories other than the provided one may cause short circuits or overheating, and result in electric shock or fire.

3.2 Working Area Safety

The place for installation should be dry, stable and flat, strong enough to support the device weight, and away from water, moisture, dust and corrosive objects.

- Do not expose the device to rain or moisture. Doing so may cause fire or electric shock.
- Do not place the device in humid or dusty places or in places where the device may come into contact with oily smoke or steam. Using the device under such conditions will result in fire, electric shocks or components deterioration.
- Do not place the device in the places where vibration and impacts occur. Doing so may cause damage to internal components or malfunction.
- Do not place the device in the places near the sea or areas affected by corrosive gas. Corrosion may damage internal components or cause the device to malfunction.
- Do not install the device in a place which is not strong enough to take the full weight of the device or on top of a surface which is sloped or unstable. Failure to observe this will cause device to fall down or tip over the device, and severe injury or damage could result.



3.3 Cleaning and Maintenance

It is recommended that you clean the device by wiping it gently using a soft and dry cloth. Do not use water, chemical substances or detergents. These may cause discoloration or corrosion to the product's exterior, and may cause a fire or electric shock.

Do not attempt to repair the device or its accessories by yourself, as damage or personal injury may occur. Damage caused by unauthorized repair is not under the warranty. Please contact our Authorized Service Center for any possible problems concerned with the product.

3.4 Warning Label

Please pay attention to the warning and follow the instruction mentioned in the warning label.

Caution	RISK OF ELECTRIC SHOCK. DO NOT REMOVE SCREWS AND COVER. NO USER SERVICEABLE PARTS INSIDE.
 Indicated on the device	
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating instructions in the literature accompanying the product.

POMCube disclaims all liability for any accidents or damage caused by using the product in the ways that are not described in this User Manual or using non-genuine parts or accessories.

4. About iCAN

4.1 Overview

iCAN is a fully integrated smart residential energy storage system that time-shifts energy use and enables a better use of renewable energy. It automatically stores electricity when the utility rates are low and powers your home when the utility rates are high, which bridges the gap between the production of energy and peak demand. It also fortifies your home against power outages by providing a backup electricity supply.

iCAN is designed to be managed and monitored by POMCube official app PeakShaver. Please download it from Apple App Store or Google Play before use. You can scan the QR code below to download PeakShaver.



iOS PeakShaver



Android PeakShaver

4.2 Features

➤ **Easy to Use**

iCAN is a fully integrated plug and play energy storage system. No need to modify or rewire your home power system and no need to hire professionals to install the device.

➤ **Intelligent Control**

iCAN can be connected to HAN network to read the real-time electricity data from your smart meter. Your electricity usage pattern(s), along with the reading from the smart meter, can be used to guide the charge/discharge operation and maximize your saving on electricity bills.

➤ **Emergency Backup**

In the event of a power outage, iCAN can power your critical home appliances with the stored electricity through its smart outlets. The maximum load is no more than 500W (AC 120v / 60Hz / Max 4.1 A).

➤ **Large Capacity**

Each iCAN has a 2.0kWh energy storage capacity, sufficient to power most home appliances. Multiple iCANs may be installed together for homes with greater energy needs.

➤ **Wi-Fi Extender**

iCAN has a built-in Wi-Fi extender that improves Wi-Fi speed and reliability at your home. iCAN supports both 802.11n and 802.11ac.

➤ **Wireless Charging**

Charging your phone is easier than ever with the iCAN wireless charging function. No need to connect a cable to your smart phone – simply place your phone on the top of the wireless charging pad. A built-in or attached wireless charging receiver compatible with WPC standard is required for your phone.

4.3 Specification

Model No.		PO1-AAW1
Charge	Input power supply	AC 90 V - 130 V / 60 Hz / Max. 10.0 A
	Output power supply	DC 90 V - 130 V
Discharge	Input power supply	DC 90 V - 130 V / Max. 5.0 A
	Output power supply	AC 120 V/ 60 Hz / Max. 4.5 A / Max. 500 W / P.F.0.99
Load		AC 120 V/ 60 Hz / Max. 4.1 A / P.F.0.99
Energy storage capacity		3.08kWh at 100%DOD/ 2.0kWh for daily cycle application
Power cord length		39.36 inches
Outer case		Aluminum alloy
Package dimension		15.75*15.16*36.00 inches
Product dimension		Height: 31.50 inches Diameter: 10.08 inches
Weight*1		57.32lbs
Operating environment		Operating environment temperature: 41 °F to 104 °F Operating environment humidity: 0 % to 90 % (no condensation)
Origin		China
*1: Average value: Slight weight deviation for each device.		

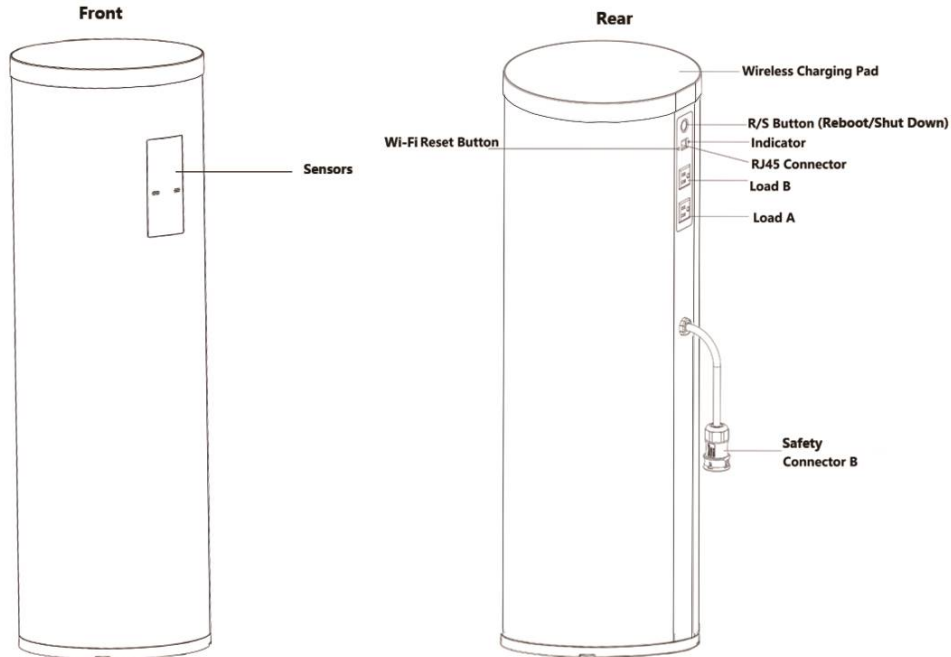
4.4 Accessory



Power Cord

4.5 Parts and Functions

Note: The images shown in this User Manual are for reference only and may slightly differ from the actual product.



Parts	Description
R/S Button	Reboot the device: Press the button once to reboot the device; Shut down the device: Press the button for at least 4 seconds to shut down the device.
Wi-Fi Reset Button	Reset the network: Press this button for 4 seconds to change the Wi-Fi setting. You need re-configure the network.
RJ45 Connector	Records the program for the manufacture and not be used by users for the time being.
Load B	A smart outlet that is controlled by the app PeakShaver. By using PeakShaver, you can turn on/off the outlet or set a timer for it.
Load A	A smart outlet that is controlled by the app PeakShaver. By using PeakShaver, you can choose to have this outlet run at either the UPS or EPS mode.
Safety Connector B	Connecting with safety connector A to form a complete power cord.
Wireless Charging Pad	The wireless charging pad enables you to charge your phone simply by putting it on the pad.
Indicator	The indicator shows the device status and the network status.
Sensors	These sensors are not used for the time being. It is planned for the future versions of iCAN.

Note:

- Shut down the device if not connected to the grid for a long while, so you won't accidentally overcharge the battery. You can't shut down the device if it is connected to the grid.
- To use the wireless charging function, a built-in or attached wireless charging receiver compatible with WPC standard is required.
- To use the smart outlets (Load A and Load B), the power of the appliance plugged into Load A or Load B, or the total power of appliances plugged into Load A and Load B at the same time, should be no more than 500W.
- The UPS and EPS for Load A stands for:
UPS (Uninterrupted Power Supply) -- Supply uninterrupted power. Please note that under UPS model, Load A will cut off its output for several seconds when power outage occurs, and will recover its power supply soon.
EPS (Emergency Power Supply) -- Only supply backup power at the time of power outage.
- Indicator status and the meanings

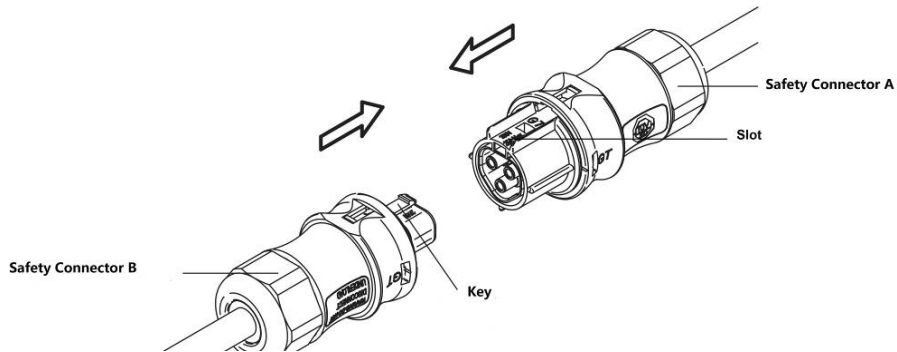
Indicator	Meanings
Solid red	Startup in progress.
Blinking red	Ready for network connection.
Blinking blue	Get the name and password of the Wi-Fi.
Blinking green	Connecting to the router; or troubles in router connection (unable to connect to the router or disconnected from the router).
Blinking white	Connecting to the Internet; or troubles in Internet connection while the router connection works properly (unable to connect to the internet or disconnected from the Internet)
Solid green	Network connection succeeds and the device is working properly.

5. Installation

5.1 Connect Safety Connectors

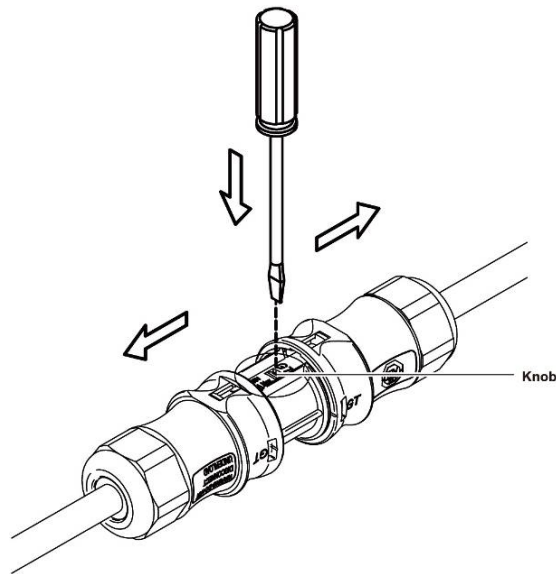
Before use, you need connect the safety connector B on the back of the device with the safety connector A. To connect the two connectors:

- 1) Properly align the key in safety connector B and the slot in safety connector A.
- 2) Once they are aligned, finger-tighten the knurled knob to hold the connection firmly in place.



5.2 Disassemble Safety Connectors

- 1) Short press the R/S button on the device to cut off the load.
- 2) Use a slot type screwdriver to press the knob of the connector and press down, and then separate the safety connector A with safety connector B.



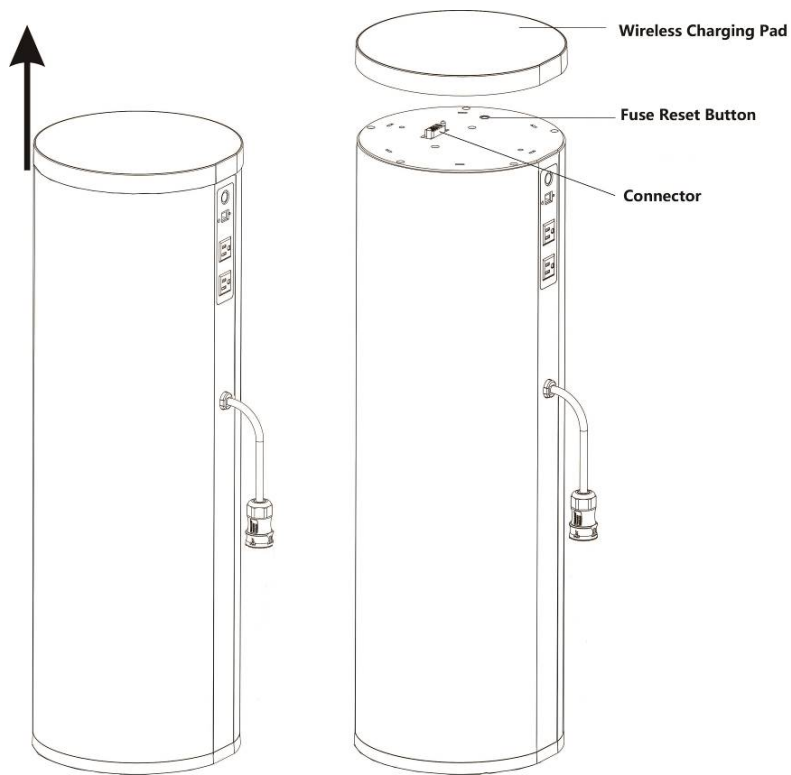
Warnings:

- Do not disassemble safety connectors when the device is loaded.
- Please always press R/S button before disassembling the safety connectors, make sure the safety connectors are disassembled before the indicator turns green (around in 15 seconds).

5.3 Reset the Fuse

When the device is overloaded (the power of the appliance plugged into Load A or Load B, or the total power of appliances plugged into Load A and Load B at the same time is over 500W), the output of Load A and Load B will be cut off. In this instance, please wait for 5 minutes to see if Load A and Load B recover its output, if not, the fuse may enable the short circuit protection, please reset the fuse.

- 1) Pull the wireless charging pad out from the top of the device. It is recommended to wear protective gloves at removing the wireless charging pad, and remove it carefully to avoid possible topple or fall of the device.
- 2) Press the Fuse Reset Button.
- 3) Put the wireless charging pad back. Properly align the connector on the main body of the device and the connector on the pad, and then press down the pad.



6. Basic Operations

6.1 Plug and Play

- 1) Connect safety connectors. Please refer to **Section 5.1 Connect Safety Connectors**.
- 2) Connect the device to the grid.

The device starts to work when it is connected to the grid. It is designed to be monitored and managed by the specified app PeakShaver. Please download the app and refer to **Section 7 Getting Started with PeakShaver** for detailed operations.

6.2 Reboot and Shut Down the Device

Reboot the device: Short press the R/S button.

Shut down the device:

- 1) Short press the R/S button
- 2) Disassemble the safety connectors. Please refer to **Section 5.2 Disassemble Safety Connectors**.
- 3) Press the R/S button for at least 4 seconds. The indicator turns off when the device is shut down.

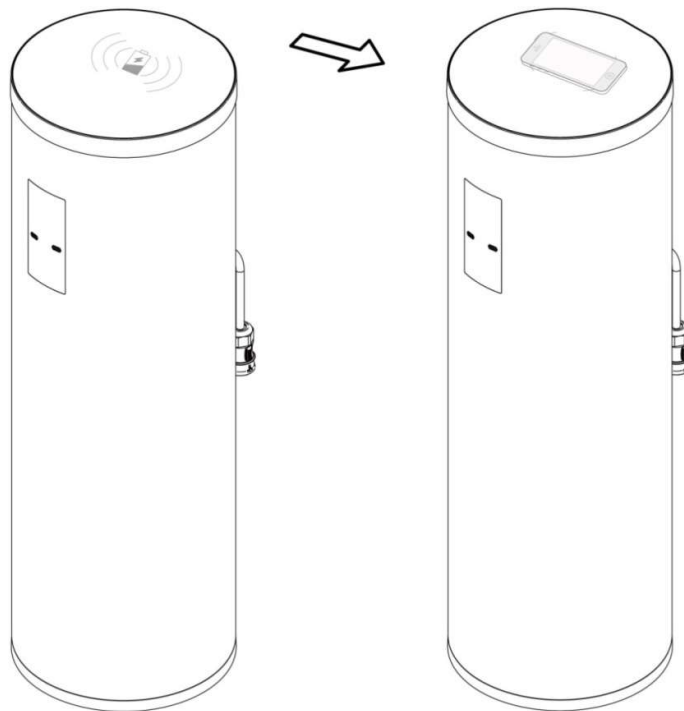
6.3 Reset the Network

Reset the Network: Press the Wi-Fi Reset button for 4 seconds to change the Wi-Fi setting, and need re-configure your network.

6.4 Wireless Charging

The top cover of iCAN is a wireless charging pad compatible with WPC wireless charging standard, with the output of DC 5V/1A. To use the wireless charging function, please put your phone on the right position on the pad of the device and make sure that the wireless charging receiver is placed directly on top of the charging icon, as shown in the following image.

A built-in or attached wireless charging receiver compatible with WPC standard is required.



7. Getting Started with PeakShaver

The device is designed to be monitored and managed by the specified app PeakShaver. Please download PeakShaver first.

7.1 Download PeakShaver

- Scan the QR code below to download PeakShaver.



iOS PeakShaver



Android PeakShaver

- Scan the QR code on the box to download PeakShaver.
- Download PeakShaver from Apple App Store.

7.2 Create an Account/Login

Open PeakShaver to enter the Login Interface and create an account as instructed. If you already have an account, please login directly.

7.3 Add New Devices

PeakShaver can monitor and manage multiple POMCube products at the same time. Each time you purchase a new POMCube product, you can add it to PeakShaver.

- 1) Scan the device QR code or input the device code. You can find the QR code and the device code on the label pasted on the rear of the device.
- 2) Setup the Wi-Fi. iCAN only can be connected to 2.4 GHz Wi-Fi, make sure that your router supports 2.4GHz Wi-Fi signal.

The setting method may differ depending on the model of router. For detailed setting method, consult your router supplier or call our service center line.

- 3) Apply for authorization. If you are adding a registered device, you need send a request for sub-owner authorization to the owner.

7.4 Submit Electric Information

Submit your electric company and rate plan through PeakShaver.

iCAN Light will be performed automatically based on your submitted rate plan: charge during off-peak hours and discharge during peak hours. If your rate plan is not available, you have to set timers for the charging and discharging of the device.

7.5 Monitor Real-time Electricity Data

iCAN NorthStar has a built-in ZigBee Module, which is able to communicate with ZigBee-enabled smart meter to get the real time energy usage data.

To get the real time energy usage date, you need to register the device to your smart meter. Once registered successfully, iCAN NorthStar will be able to display the real time energy usage data on PeakShaver.

To register this device to the smart meter, you must have:

- An active SCE, PG&E, SDG&E account, or an account from any other electric utility provider that has a Home Area Network (HAN) program.
- An eligible smart meter that supports ZigBee.

The registering process may be varied according to different electric utility providers. Please follow the instructions in your own electric utility provider. Here we take PG&E as the example:

- a) Login to your account with your electric company
- b) Register the device to your account with the electric company.
 - Find the Stream My Data Dashboard page
 - Click the **"Register New Device"** button to enter the registration page
 - Fill in all required information and submit

Stream My Data Dashboard

Welcome to your Stream My Data dashboard. Stream My Data is a wireless technology that provides information about your electricity in real time.

Before Getting Started

- Confirm you are able to install an energy monitoring device within 75 feet of the SmartMeter™.
- Confirm your PG&E account is eligible for Stream My Data, see below.
- Purchase an energy monitoring device. [View list of PG&E-validated devices.](#)

Confirm Eligibility

- Select your account and address, below, to see a list of eligible SmartMeter™ electric meters.
- Choose **Register New Device**, at the bottom right, to continue.

The screenshot shows the 'Stream My Data Dashboard' interface. At the top, there are two dropdown menus: 'Choose Account: ?' and 'Choose Address: ?'. Below these is a table titled 'SmartMeter™ electric meters [1 available] ?'. The table has three columns: 'Meter Badge ID ?', 'Associated energy monitoring device(s) ?', and 'Actions ?'. The table contains one row with the following data: '8 devices' in the first column, 'iCAN A' in the second column, and a red circle around the '+ Register New Device' button in the third column. There are also 'Connect' and 'Edit' buttons next to the '+ Register New Device' button. The table also shows a timestamp '[01:00:00:00:00:00:00]'.

- c) Configure the meter: Simply follow the steps outlined after registration.
- d) Connect your energy monitoring device. Once the meter is successfully configured, you will be able to connect your device.

Note: The registering procedures of different electric companies may vary. Please register the device following the instructions from your own electric company. You can find the Mac Address and Install Code in **Settings < ZigBee Info** from the app.

8. Troubleshooting

Troubles	Possible Reasons	Solutions
Failed to configure iCAN through the app.	<ol style="list-style-type: none"> The indicator is not flashing red. Your phone must connect to the 2.4 GHz Wi-Fi. 	<ol style="list-style-type: none"> Check the indicator status. If the indicator doesn't flash red, please reset the network by pressing the Wi-Fi Reset Button. Connect your phone to a 2.4 GHz Wi-Fi.
Failed to find a 2.4GHz Wi-Fi.	Your router should support 2.4GHz Wi-Fi.	Select 2.4GHz when you are setting your router. Please consult your router supplier or POMCube Service Center for technical support.
Unable to connect to Wi-Fi (the indicator flashes green).	Your router may not work properly.	Check your router working status. If the router works well, please reboot the device by pressing the R/S button. If it doesn't work yet, reset the network by pressing the Wi-Fi Reset Button.
Connected to Wi-Fi, but failed to connect to the Internet (the indicator flashes white).	Your router and network may not work properly.	Check your router working status. If the router works well, please reboot the device by pressing the R/S button. If it doesn't work yet, reset the network by pressing the Wi-Fi Reset Button.
When turn on/turn off the smart outlet on the back of the device through PeakShaver, the outlet responds slowly.	Your router or network may not work properly.	Check your router working status. Reboot the router if necessary.
Wireless charging failed	Your phone should have a built-in or have attached a wireless charging receiver compatible with WPC wireless charging standard and be placed in the right position.	<ol style="list-style-type: none"> Check that whether your phone has a built-in or has attached a wireless charging receiver complying with WPC wireless charging standard. Place your phone on the center of the wireless charging icon on the top pad.
Unable to shut down iCAN	You can't shut down the device when it is connected to the grid.	Disassemble the safety connectors (please refer to the Section 5.2), and then press the R/S Button for at least 4 seconds to shut down the device.
Failed to read the electricity meter data.	You should register the device to your account with the electric company and optionally submit your electricity account information to PeakShaver.	Register the device to your electricity account and finish the setting through PeakShaver. You can find the Mac Address and Install Code in Setting→ZigBee Info
The output of the smart outlets on the back of the device cuts off when an appliance is plugged into it.	The power of the appliance plugged into Load A or Load B, or the total power of appliances plugged into Load A and Load B at the same time, should be no more than 500W.	<ol style="list-style-type: none"> Check the power of your appliance and unplug appliances whose power totaled over 500W. Wait for 5 minutes, the outlets shall recover its output. If the outlets don't recover its output 5 minutes later, the fuse may enable the short circuit protection, please refer to the Section 5.3 to reset the fuse.
When press Wi-Fi Reset Button to re-configure the network, the app skips the configuring interface.	iCAN should be off-line at re-configuring.	Wait for the device status to be off-line, the icon of the device in the APP shall turn to be gray, and then start the configuration.

9. Warranty and Service

9.1 Limited Warranty

Thank you for purchasing POMCube iCAN. POMCube values your business and always attempts to provide you the very best quality of service.

POMCube warrants to the purchaser of the product in its original sealed packaging that the product is free from defects in material and workmanship, for the limited warranty period, **One** year labor and parts and **Seven** year limited warranty on battery core, **Ten** year warranty available to make iCAN SGIP complaint*, beginning on the date the product was purchased in its original sealed packaging.

* No altering of battery charging/discharging policies. The battery pack should not be removed from the enclosure.

The warranty stated herein shall NOT apply if:

- a) The product was not used in accordance with any accompanying instructions
- b) The product was not used for its intended function and environment
- c) Any failure or defect arose out of the presence of a third party product or component, whether authorized or not.
- d) Any failure or defect was a result of improper installation or testing, misuse, neglect, unauthorized repair, modification, accident, or other external causes.
- e) Customer does not provide required proof of purchase

POMCube reserves the right of final decision in all warranty cases. POMCube may interpret and revise the content of this warranty terms.

9.2 Service

If you have any questions, please contact our Service Center line or your local distributor, or visit our website at www.pomcube.com.

If it becomes necessary to return the device for repair, contact your local distributor for more information.

POMCube Inc.

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For more information, please visit www.pomcube.com