

Refoss P11

Refoss Tasmota Smart Plug (Model P11)

User Instruction Manual

1. PRODUCT OVERVIEW

The Refoss Tasmota Smart Plug (Model P11) is a compact Wi-Fi enabled smart socket designed for advanced energy monitoring and home automation. It comes with Tasmota firmware pre-installed, offering direct integration with a wide range of smart home systems without the need for a proprietary hub or cloud service. This plug allows users to measure power consumption, voltage, current, and power in real-time, making it ideal for optimizing energy usage and managing connected devices.



Figure 1.1: Refoss Tasmota Smart Plug with its Tasmota web interface displayed on a smartphone.

Key Features:

- **Pre-installed Tasmota Firmware:** Ready to use out of the box with Tasmota, offering extensive customization and control.
- **Energy Monitoring:** Real-time tracking of power consumption, voltage, current, and power for connected appliances.
- **No Cloud Required:** Operates locally, enhancing data privacy and system reliability.
- **Wide Compatibility:** Integrates seamlessly with popular smart home platforms such as Home Assistant, ioBroker, MQTT, Alexa, Google Assistant, Philips Hue, Z-Wave, Domoticz, Homematic IP, and SmartThings.
- **Overheat Protection:** Automatically shuts down to prevent damage from excessive temperatures.
- **High Power Rating:** Supports up to 16 Amperes and 3840 Watts, suitable for various household appliances.

- **Compact Design:** Mini form factor ensures it does not obstruct adjacent outlets.

Why Refoss

Refoss



Others



4M Flash

Outperforms the commonly seen 2M Flash with faster operational speeds.



MAX 16A 3840W

Appliances suitable for a broader power range. Like washing machine, heater.



Overheat Protection

Safeguard against electrical accidents.



Noiseless Design

Enjoy noise-free performance.

Figure 1.2: Key advantages of the Refoss Tasmota Smart Plug, including 4M Flash memory, 16A/3840W capacity, overheat protection, and noiseless operation.



Figure 1.3: The internal ESP8266 chip enables broad compatibility with smart home ecosystems like Home Assistant, MQTT, Alexa, and more.

2. SETUP AND INITIAL CONFIGURATION

The Refoss Tasmota Smart Plug is designed for easy setup. Follow these steps to connect it to your Wi-Fi network and access its web interface.

2.1. Connecting to Wi-Fi:

1. **Plug In the Device:** Insert the Refoss Tasmota Smart Plug into a power outlet.
2. **Search for AP Hotspot:** On your smartphone or computer, search for Wi-Fi networks. You should find a network named "tasmota-XXXXXX-XXXX". Connect to this network.
3. **Access Web Interface:** After connecting, your device should automatically redirect to the Tasmota configuration page (usually 192.168.4.1). If not, open a web browser and manually navigate to <http://192.168.4.1>.
4. **Enter Wi-Fi Information:** On the Tasmota web interface, select your home Wi-Fi network from the list and enter its password. Click 'Save'.
5. **Obtain Device IP Address:** The device will restart and connect to your home Wi-Fi. The web interface will then display the new IP address of the device on your network. Make a note of this IP address.
6. **Control and Configure:** You can now access the device's web interface using its new IP address to control and configure it.

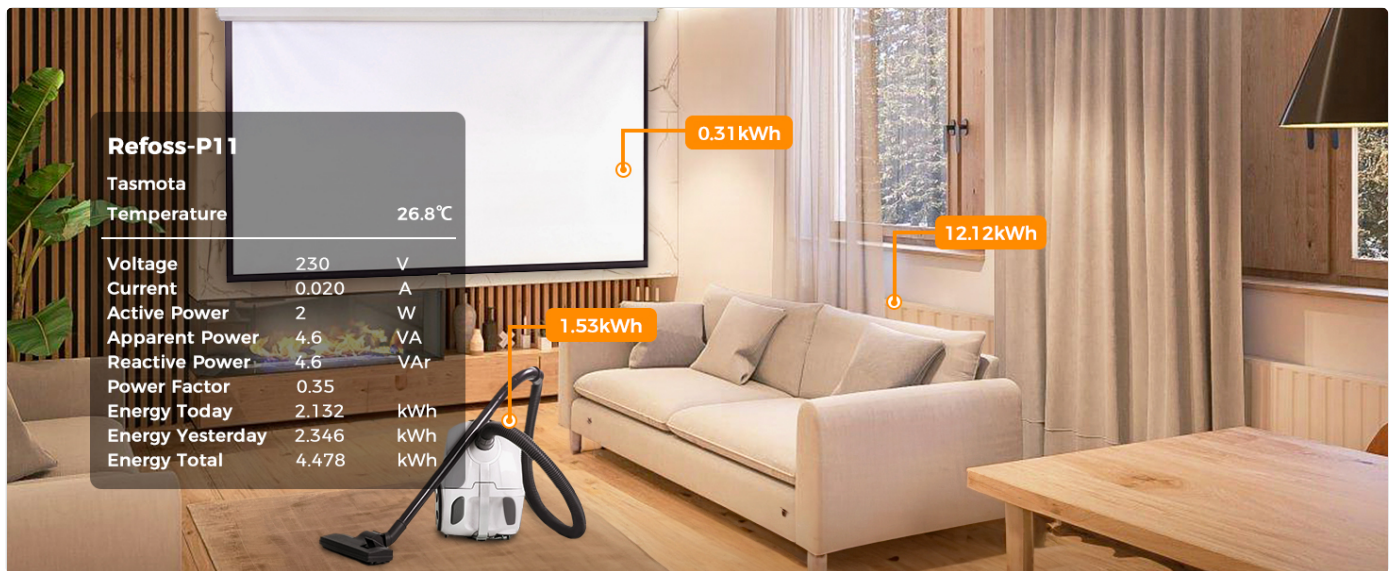


Figure 2.1: Step-by-step guide for initial Wi-Fi setup and accessing the Tasmota web interface.

2.2. Firmware Update:

It is recommended to keep your Tasmota firmware updated for optimal performance and security. Ensure you select the correct firmware type (4M) to avoid device malfunction.

- **Tasmota Official Firmware:** You can find official Tasmota firmware versions at <http://ota.tasmota.com/tasmota/release/>. When updating, select the firmware file with "4M" in its name (e.g., `tasmota-4M.bin.gz`). Updating with a 2M firmware will cause the device to crash.
- **Refoss Official Firmware:** Refoss also provides validated firmware versions in multiple languages on their support page: https://support.refoss.net/Support/Resource_Library.

Firmware Upgrade

Tasmota Official:

<http://ota.tasmota.com/tasmota/release/>

You can refer to the image below and download the firmware with "**4M**" in its name (only firmware with "**4M**" in the name in the webpage list can be used).

donate PayPal

These binaries are built using core 2.7.6

English language feature versions

OTA Firmware	OTA URL	Size
tasmota-4M.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota-4M.bin.gz	502k
tasmota-display.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota-display.bin.gz	418k
tasmota-ir.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota-ir.bin.gz	446k
tasmota-knx.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota-knx.bin.gz	447k
tasmota-lite.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota-lite.bin.gz	355k
tasmota-minimal.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota-minimal.bin.gz	259k
tasmota-sensors.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota-sensors.bin.gz	495k
tasmota-zbbridge.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota-zbbridge.bin.gz	513k
tasmota-zigbee.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota-zigbee.bin.gz	573k
tasmota.bin.gz	http://ota.tasmota.com/tasmota/release/tasmota.bin.gz	454k

tasmota-4M.bin.gz **502k**

Please note: Selecting the wrong version may result in device damage.

Refoss Official:

https://support.refoss.net/Support/Resource_Library

You can download firmware versions in other languages validated by Refoss here, including English, German, French, Italian, and Spanish.

Figure 2.2: Information on where to find and how to select the correct firmware for updates.

3. OPERATING THE SMART PLUG

Once configured, the Refoss Tasmota Smart Plug offers various functionalities through its web interface or integrated smart home platforms.

3.1. Basic Control:

From the main Tasmota web interface, you can toggle the plug ON/OFF, view current status, and access configuration settings.



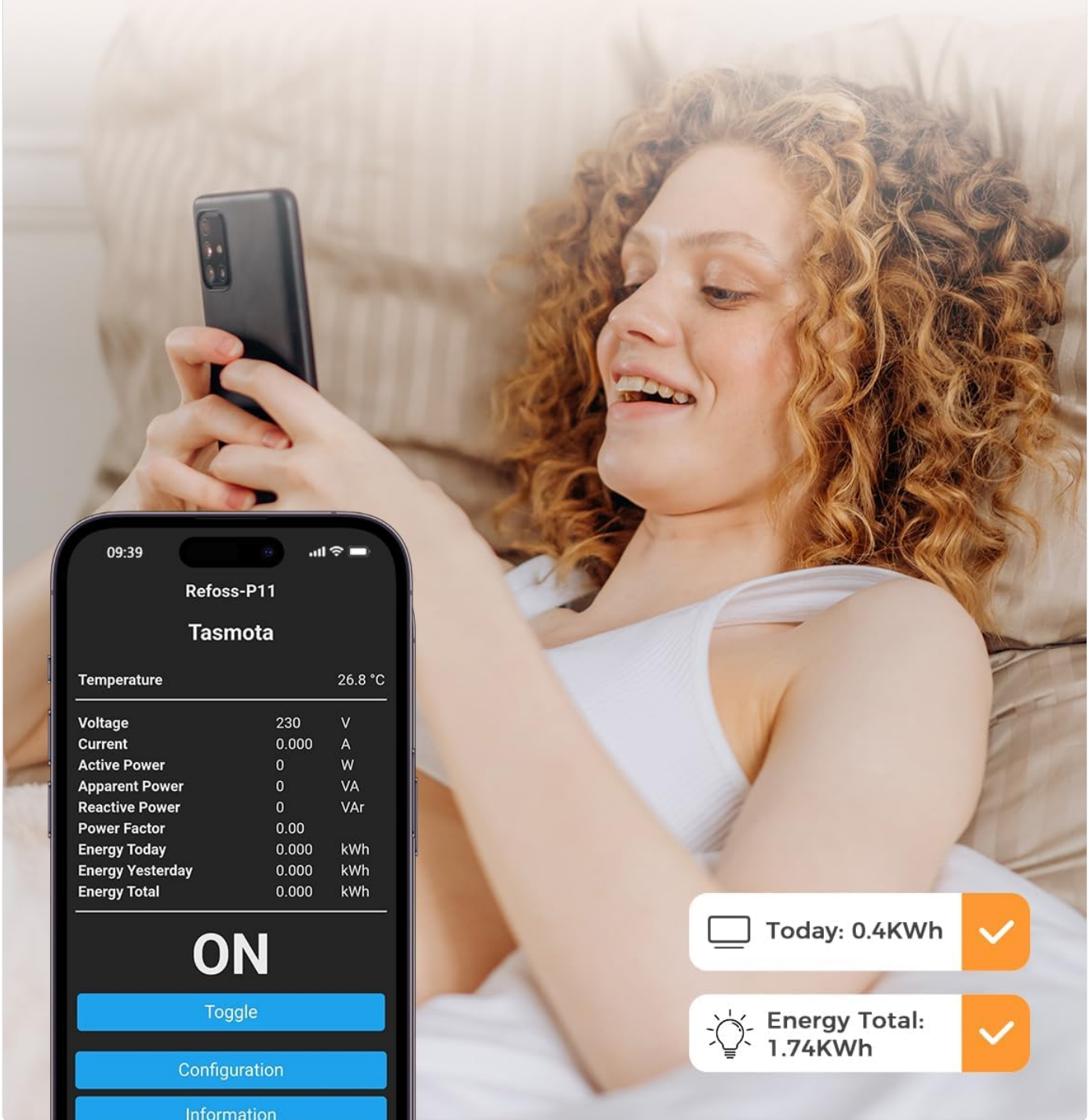
Figure 3.1: Overview of the Tasmota web interface, including the main control panel and various configuration menus.

3.2. Energy Monitoring:

The plug provides real-time data on energy consumption, voltage, current, and power. This data is accessible directly from the Tasmota web interface.

Power Monitoring

Track the energy consumption of your connected devices in real-time.



09:39

Refoss-P11

Tasmota

Temperature

26.8 °C

Voltage	230	V
Current	0.000	A
Active Power	0	W
Apparent Power	0	VA
Reactive Power	0	VAr
Power Factor	0.00	
Energy Today	0.000	kWh
Energy Yesterday	0.000	kWh
Energy Total	0.000	kWh

ON

Toggle

Configuration

Information

Today: 0.4KWh

✓

Energy Total: 1.74KWh

✓

Figure 3.2: Real-time power monitoring displayed on the Tasmota interface.

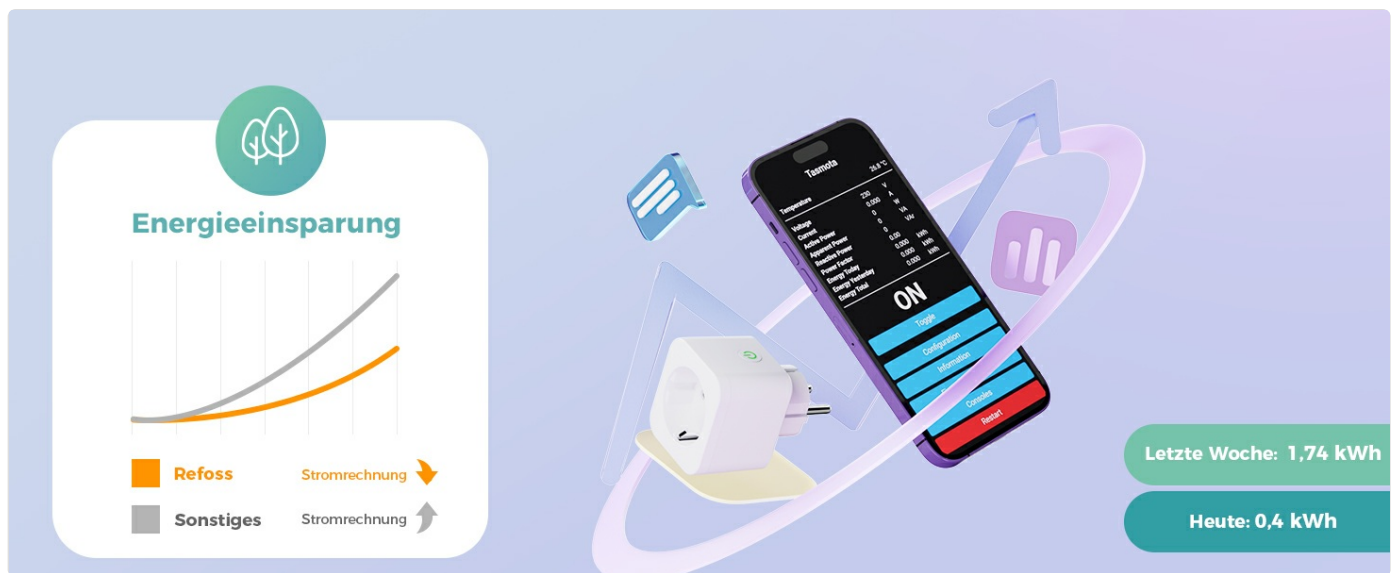


Figure 3.3: The smart plug can track energy consumption for various appliances, such as a vacuum cleaner, providing detailed usage statistics.

3.3. Automation and Timers:

You can set up schedules and timers for automated control of your devices. This can be done via the Tasmota web interface or through integrated smart home platforms.

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Tasmota

Timer parameters

☐ Enable Timers

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Output 1 Action Off

☐ Enable ☐ Repeat

☒ Time
☐ Sunrise (05:38)
☐ Sunset (19:56)

00 : 00 +/- 00

☐ Sun ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat

Save

Configuration

Figure 3.4: Tasmota's timer configuration interface allows for precise scheduling of device operation.



Figure 3.5: Example of using timers for daily routines, such as turning on lights in the morning and off at night.

4. MAINTENANCE

The Refoss Tasmota Smart Plug requires minimal maintenance. Regular firmware updates are recommended to ensure optimal performance and security.

4.1. Cleaning:

Wipe the device with a dry, soft cloth. Do not use liquid cleaners or abrasive materials.

4.2. Temperature Calibration:

If the temperature reading appears unusually high, you can calibrate the temperature sensor using the Tasmota console command: `ADCParm1 2, 4000,80000,4250,1`.

Configuration Template

Refoss-P11
Tasmota

Template parameters

Name	Refoss-P11	
Based on	Sonoff Basic (1) ▼	
GPIO0	None ▼	
GPIO1	None ▼	
GPIO2	None ▼	
GPIO3	CSE7766 Rx ▼	
GPIO4	LedLink_i ▼	
GPIO5	Button ▼	1 ▼
GPIO9	None ▼	
GPIO10	None ▼	
GPIO12	Led_i ▼	1 ▼
GPIO13	Relay ▼	1 ▼
GPIO14	None ▼	
GPIO15	None ▼	
GPIO16	None ▼	
GPIO17	ADC Temp ▼	

Save

Configuration

Tasmota 12.4.0 by Theo Arends

*Temperature calibration parameters:
ADCParm1 2, 4000,80000,4250,1

Figure 4.1: The Tasmota configuration template, highlighting the GPIO settings and the temperature calibration command.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your Refoss Tasmota Smart Plug.

5.1. Device Not Connecting to Wi-Fi:

- Ensure you are connecting to the correct "tasmota-XXXXXX-XXXX" hotspot during initial setup.
- Verify that your Wi-Fi password is entered correctly.
- Make sure the plug is within range of your Wi-Fi router.
- Try resetting the device to factory settings (see 5.2).

5.2. Resetting the Device:

To reset the device to its factory settings, press and hold the power button on the plug for approximately 45 seconds. The device will restart, and you can then proceed with the initial Wi-Fi setup as described in Section 2.1.

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Tasmota

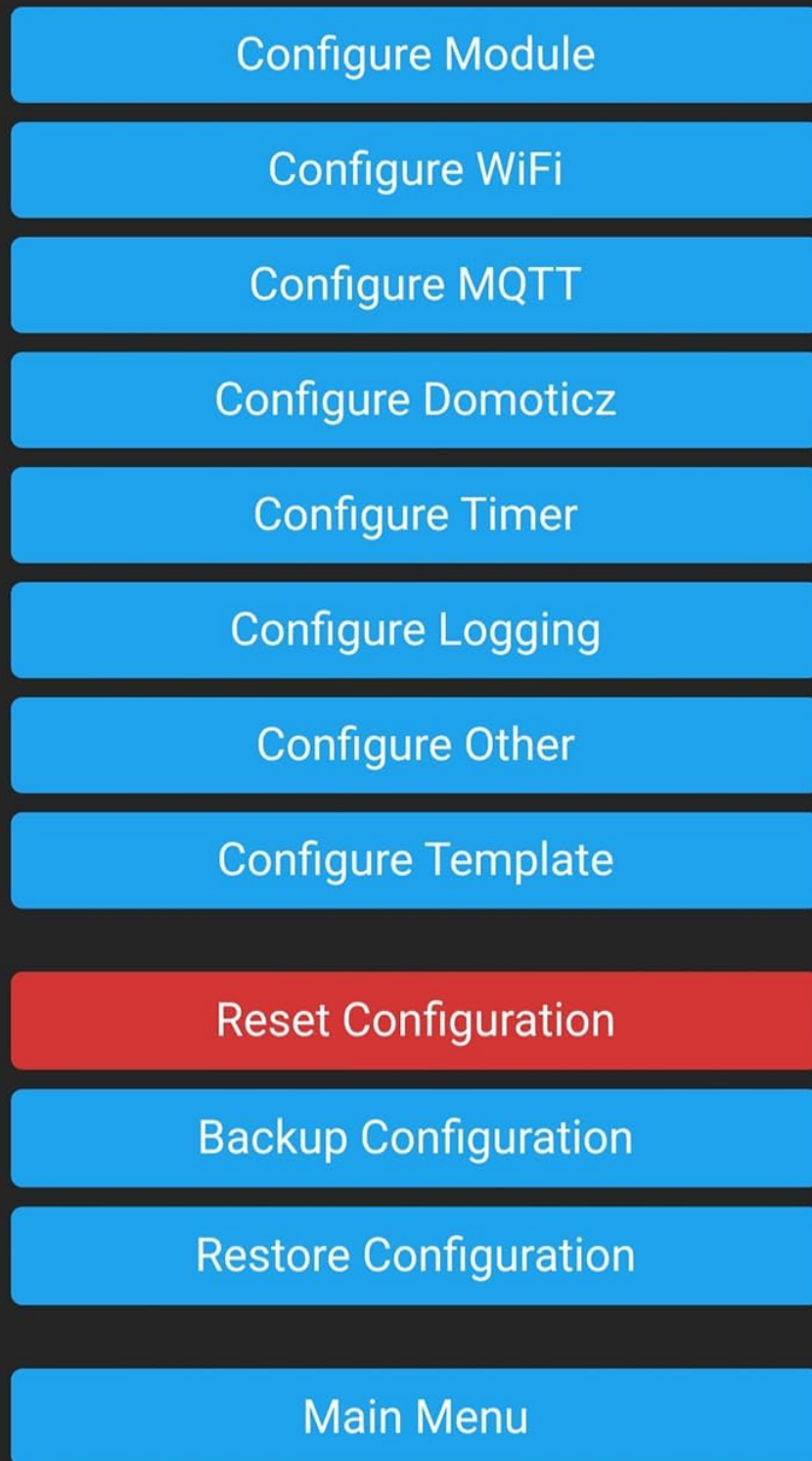


Figure 5.1: Tasmota interface options for managing configurations, including resetting the device.

5.3. Overheat Protection Triggering Frequently:

- Ensure the connected appliance does not exceed the plug's maximum rating of 16A/3840W.
- Check for proper ventilation around the plug and appliance.

- Consider calibrating the temperature sensor as described in Section 4.2 if the temperature readings are consistently abnormal.

Overheat Protection

The device will automatically shut down when continuously reaching a dangerous high temperature.

Note: You can calibrate the temperature in the console for temperature abnormalities.



Figure 5.2: The smart plug's overheat protection feature, which automatically shuts down the device if it reaches a dangerously high temperature.

5.4. General Issues and Further Support:

Refoss has compiled information on common issues based on customer feedback, including failed firmware updates, temperature fluctuations, and automatic shutdowns. For detailed troubleshooting and support, scan the QR code below or visit the Refoss support page.



Figure 5.3: Scan this QR code for a PDF document detailing common issues and solutions, or visit [Refoss Support](#).

6. SPECIFICATIONS

Attribute	Value
Model Number	P11
Brand	Refoss
Product Dimensions	5 x 5.7 x 6.3 cm
Weight	105 Grams
Operating Mode	ON-OFF
Current Rating	16 Ampere
Operating Voltage	240 Volt
Connector Type	Plug In (Type F)
Circuit Type	1-Way
Material	Plastic

7. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Refoss website or contact their customer service directly. The product includes a user manual in the box for additional guidance.

- **Refoss Brand Store:** Visit the official Refoss store on Amazon for product information and support resources: [Refoss Store](#).

- **Online Resources:** Additional support and firmware updates can be found atsupport.refoss.net.

Related Documents - P11

<div><div>English 1</div><div>Deutsch 7</div><div>Franses 13</div><div>Italiano 20</div><div>Español 26</div><div>Português 32</div><div>한국어 39</div><div>Česky 45</div><div>Српски 51</div><div>Словенски 57</div><div>Português 63</div><div>ไทย 70</div></div>	<div>Refoss P11 Tasmota Smart Plug Installation and Configuration Guide</div> <div>This guide provides detailed instructions for installing, configuring, and calibrating the Refoss P11 smart plug with Tasmota firmware. Learn about temperature monitoring, voltage, current, power calibration, and access FAQs.</div>
<div><div>Refoss P11</div><div>English</div><div>Deutsch</div><div>Franses</div><div>Italiano</div><div>Español</div><div>Português</div><div>한국어</div><div>Česky</div><div>Српски</div><div>Словенски</div><div>Português</div><div>ไทย</div></div>	<div>Refoss Smart Plug Troubleshooting Guide: WiFi, HomeKit, and Alexa Connection Issues</div> <div>Resolve common connection problems with your Refoss smart plug. This guide provides troubleshooting steps for 2.4 GHz Wi-Fi, Apple HomeKit, and Amazon Alexa integration, plus general usage advice.</div>
<div><div>Refoss</div><div>User Manual</div></div>	<div>Refoss Smart Plug User Manual - Setup, Features, and Support</div> <div>Comprehensive user manual for the Refoss Smart Plug, detailing safety guidelines, package contents, LED status indicators, step-by-step installation, app setup, voice assistant integration with Alexa and Google Assistant, troubleshooting FAQ, warranty information, and disclaimers. Includes manufacturer details and support links.</div>
<div><div>Refoss</div><div>User Manual</div></div>	<div>Refoss Smart Plug User Manual: Setup, Features, and Troubleshooting</div> <div>Comprehensive user manual for the Refoss smart plug, covering safety information, installation guide, LED status rules, linking with Google Assistant and Amazon Alexa, FAQs, and warranty details.</div>
<div><div>Refoss</div><div>User Manual</div></div>	<div>Refoss EM06 Smart Energy Meter User Manual</div> <div>Comprehensive user guide for the Refoss EM06 Smart Energy Meter, detailing installation, operation, features, safety precautions, and technical specifications for optimal energy monitoring.</div>

7 Things
You Need to Know
About HomeKit

Take a
picture
and scan
the code:

HomeKit Setup Code

Apple Home

[7 Things You Need to Know About HomeKit Setup and Usage](#)

A comprehensive guide on setting up and using Apple HomeKit with Refoss devices, covering Wi-Fi requirements, iOS version compatibility, remote control, sharing features, and app integration.

Documents - Refoss – P11

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