WIFI PLUG PG01 TASMOTA

USER GUIDE

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Manufacturer: ATHOM, https://www.athom.tech/

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PURPOSE OF USE

The WIFI Plug (Socket) PG01 from Athom is used for remote switching of connected loads from SOLAR controls s.r.o. devices using a WIFI network. However, it can also be used independently for external switching via MQTT, HTTP, etc.

This WIFI socket is equipped with the universal Tasmota firmware, which allows direct switching using the above mentioned protocols without the need for cloud-based solutions. Within the SOLAR controls s.r.o. product range, some devices support bridging from the S-CONNECT protocol to the Tasmota firmware's HTTP API.

If you need more information about the socket or the Tasmota firmware than what is provided in this guide, please refer to https://www.athom.tech/blank-1/tasmota-esp32-c3-eu-plug-v3 or https://tasmota.github.io/docs/.

CONNECTING TO THE WIFI NETWORK

Make sure that the location where the socket will be installed has sufficient WIFI signal strength. Connect the socket to the WIFI network according to the short guide provided with the socket.

Below we provide a more detailed guide, as some steps may not be clear enough from the short guide.

1. Connect the socket to the power supply.
2. The socket will create an access point named tasmota_xxxx.
3. Connect to this access point with your mobile phone or computer.
   Important notice: *Before connecting to the socket's access point, turn off any other internet connection on your mobile phone or computer (such as wired Ethernet or mobile data) and keep only the WIFI connection active!*
4. If the socket's configuration webpage does not appear automatically, open the web browser on your phone or computer and enter the following webpage: **http://192.168.4.1**. This is the default IP of the Tasmota firmware. This configuration webpage of the socket will appear:

5. Fill in your WIFI network access on this configuration page and press the Save button. Before that, make sure that your WIFI network has a DHCP server enabled (so that the WIFI socket can receive a valid IP address). Usually, the DHCP server is enabled.

6. The Tasmota firmware will verify the connection and redirect the configuration page to the new IP address in your WIFI network, which will be assigned to the socket by the DHCP server (eg. http://192.168.2.10). On your computer or phone, this redirection will make the website lost because you are still connected to the socket access point and you are not able to access your WIFI network.
7. Disconnect the mobile phone or computer from the socket access point and connect it back to your WIFI network.
8. Refresh the socket configuration page in the browser; it should reside on the new IP from point 6.

PAIRING WITH SOLAR CONTROLS S.R.O. DEVICES

If you have a socket connected to the given IP in your WIFI network and the corresponding device (e.g. WATTrouter Mx) is also connected to the same network, then a request to pair a new station should appear on the configuration tab of the S-CONNECT protocol for that product:

1. If automatic pairing is enabled, then the request will appear automatically, usually within 1 minute.
2. If only manual pairing is enabled (S-CONNECT 2), then enter the socket IP in manual pairing mode and the device should find it.

After pairing, communication with the socket should take place automatically, including switching the relay and reading the values of the built-in electricity meter. When the relay is switched on, the socket LED should glow red.

Important: *If you are not an expert on Tasmota firmware, do not change the configuration of the socket, otherwise communication with WIFI or the SOLAR controls s.r.o. device may not work or even damage the socket!*

Important: *If the socket is controlled by the SOLAR controls s.r.o. device, do not switch the output relay via any other Tasmota API! There is a risk of damage to the socket relay!*

FIXED IP SETTINGS

It is possible to set a fixed IP for the plug. This can be useful if in the SOLAR controls s.r.o. device has disabled automatic pairing of stations, or simply you want the socket to have a fixed IP. The fixed IP setting is done in the Tasmota firmware using the console.

In the main menu, press the Console button and enter the following commands: **IPaddress1 192.168.1.20** to set a new IP and **Restart 1** to restart the socket.

After restarting the socket you will find it at this fixed IP.

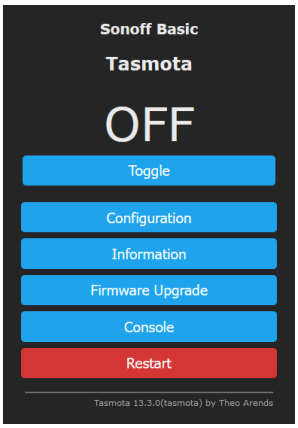
If you wish to set a dynamic IP again according to the DHCP server, enter **IPaddress1 0.0.0.0** and then again **Restart 1**.

You can find more detailed information in English here
https://github.com/arendst/Tasmota/discussions/14289

RESTORE THE DEFAULT SETTINGS OF THE SOCKET

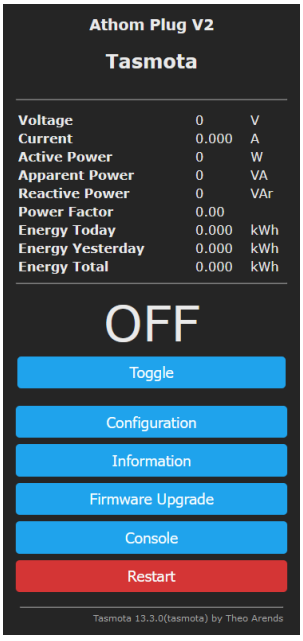
If anything in the socket stops working, such as the WIFI network connection, etc., or the WIFI network configuration has changed and the outlet does not connect, please reset the plug to its default settings. Here's how to do it:

1. Press the socket button for more than 4 seconds. The socket LED should light up blue.
2. Then perform the steps again according to chapter Connecting to the WIFI network.
3. Finally, restore the socket configuration. Unfortunately, restoring the default settings completely erases the entire Tasmota firmware configuration, including port mapping (GPIO) and device name (the Reset Configuration command in the socket's Configuration menu has the same effect). After recovery, this page will appear, the plug will only switch the relay and will not measure:



a) In the main menu, press the Configuration/Configure Other button.
b) Enter this text in the Template field:
{"NAME":"Athom Plug V2","GPIO":[0,0,0,3104,0,32,0,0,224,576,0,0,0,0],"FLAG":0,"BASE":18}
c) Check Activate.
d) Press Save.

The socket will restart with the new configuration and the familiar default page will appear again:



Pundits will surely notice that the socket in the factory default settings measured the voltage even when the socket relay was switched off. If you want to restore this behavior, then open the console again (Console button) and write the command **SetOption21 ON**.

TROUBLESHOOTING

The following table shows the most common causes of problems and how to fix them:

Problem description	Possible reasons	Solution
The socket cannot be connected to a WIFI network	WIFI signal low or missing	Increase WIFI signal strength in the area where the socket should be used.
	Wrong socket configuration	Restore socket default settings.
	WIFI parameters changed	Either enter correct parameters (SSID and password) or restore default settings of the socket.
The socket configuration page does not appear	Wrong IP	Find out what IP the socket is on. Find the given IP from the list of DHCP server stations in your router, or use, for example, the Angry IP scanner (https://angryip.org/).
	WIFI signal low or missing	Increase WIFI signal strength in the area where the socket should be used.
	Wrong socket configuration	Restore socket default settings.
The socket cannot be switched	WIFI signal low or missing	Increase WIFI signal strength in the area where the socket should be used.
	Wrong socket configuration	Restore socket default settings.
The socket does not measure	In the configuration, the measurement is disabled in the off state	From the Console menu, enter the command **SetOption21 ON**
The socket cannot be paired with the SOLAR controls s.r.o. device	Wrong IP or different subnet	Make sure the socket is accessible on the same subnet as the device.
	WIFI signal low or missing	Increase WIFI signal strength in the area where the socket should be used.
	Wrong socket configuration	Restore socket default settings.
	Old firmware in the SOLAR controls s.r.o. device	Update the firmware to a compatible version that supports the S-CONNECT protocol bridge to the Tasmota API.

If the problem is not described in the given table or if it cannot be solved, first contact SOLAR controls s.r.o. technical support.

UPDATING THE SOCKET FIRMWARE

Update the firmware only if you have a serious reason to do so.

If for some reason you need to update the firmware of the socket, it is possible to do it directly from the web interface of the socket via the WIFI network, if you are also connected to the Internet. Press the Firmware Upgrade button in the main menu and then press the Start upgrade button in the Upgrade by web server menu. The socket will update and restart. Then refresh the configuration page of the socket in the browser.

You can find more information about the upgrade in English here:
https://tasmota.github.io/docs/Upgrading/#upgrade-by-file-upload

Important: *The warranty does not cover a failed firmware update. If the firmware update fails and the socket no longer starts, it would be necessary to disassemble it and flash the Tasmota firmware again using the serial line. Unfortunately, the SOLAR controls s.r.o. service center cannot repair the socket in that case.*

TECHNICAL SPECIFICATION

The specification below was taken from the manufacturer's website.

Parameter	Value, notes
Supply voltage	100-240VAC 50/60Hz
Maximum current	16A
Maximum input power of connected load	3680W
WIFI standard:	IEEE802.11b/g/n,2.4GHz
Range:	Max. 30 m in line of sight. Use a WIFI extender or bridge to increase the range.
Operating temperature:	-20°C to +50°C
Material:	ABS+PC
Fire resistance:	94-V0
Dimensions:	51*51*85mm
Weight:	80g