Wave 2PM

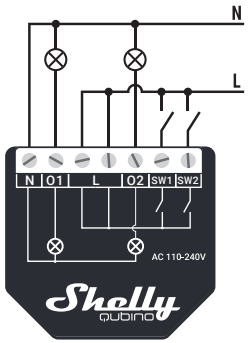

Fig. 1

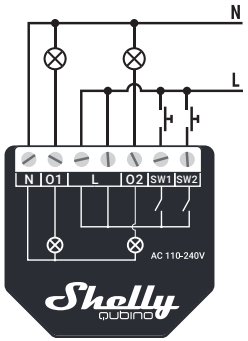

Fig. 2

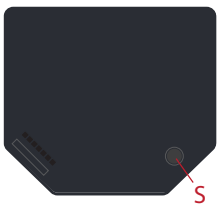

Fig. 3

EN

LEGEND

Device terminals:
- **N**: Neutral terminal
- **L**: Live terminals (110-240 V AC)
- **O1:** Load circuit 1 output terminal
- **O2:** Load circuit 2 output terminal
- **SW1:** Switch/push-button input terminal (controlling O1)
- **SW2:** Switch/push-button input terminal (controlling O2)

Wires:
- **N**: Neutral wire
- **L**: Live wire (110-240 V AC)

Button:
- **S:** S button (Fig. 3)

EN

USER AND SAFETY GUIDE

2-circuit Z-Wave® smart switch with power measurement

READ BEFORE USE

This document contains important technical and safety information about the Device, its safe use and installation.

⚠ **CAUTION!** *Before beginning the installation, please read carefully and entirely this guide and any other documents accompanying the device. Failure to follow the installation procedures could lead to malfunction, danger to your health and life, violation of law or refusal of legal and/or commercial guarantee (if any). Shelly Europe Ltd. is not responsible for any loss or damage in case of incorrect installation or improper operation of this Device due to failure of following the user and safety instructions in this guide.*

TERMINOLOGY

Gateway – A Z-Wave® gateway, also referred to as a Z-Wave® controller, Z-Wave® main controller, Z-Wave® primary controller, or Z-Wave® hub, etc., is a device that serves as a central hub for a Z-Wave® smart home network. The term "**gateway**" is used in this document.

S button - The Z-Wave® Service button, which is located on Z-Wave® devices and is used for various functions such as inclusion (adding), exclusion (removing), and resetting the device to its factory default settings. The term "**S button**" is used in this document.

Device – In this document, the term "**Device**" is used to refer to the Shelly Qubino device that is a subject of this guide.

ABOUT SHELLY QUBINO

Shelly Qubino is a line of innovative microprocessor-managed devices, which allow remote control of electric circuits with a smartphone, tablet, PC, or home automation system. They work on Z-Wave® wireless communication protocol, using a gateway, which is required for a configuration of devices. When the gateway is connected to the internet, you can control Shelly Qubino devices remotely from anywhere. Shelly Qubino devices can be operated in any Z-Wave® network with other Z-Wave® certified devices from other manufacturers. All mains operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. Devices are designed to work with older generations of Z-Wave® devices and gateways.

ABOUT THE DEVICE

The Device is a single product that enables remote control of two electrical devices such as bulbs, ceiling fans, or IR heaters. It switches (on/off) two independent loads and measures their power consumption separately and in total. The Device is compatible with switches (default) and push-buttons.

INSTALLATION INSTRUCTIONS

The Device can control various types of loads (e.g., bulbs). Each circuit can support a load of up to 10 A (with a total of 16 A for both circuits) and its power consumption is measured individually and in total (AC only). It can be retrofitted into standard electrical wall boxes, behind power sockets and light switches or other places with limited space.

⚠ **CAUTION!** Danger of electrocution. Mounting/installation of the Device to the power grid has to be performed with caution, by a qualified electrician.
⚠ **WARNING!** Danger of electrocution. Every change in the connections has to be done after ensuring there is no voltage present at the Device terminals.
⚠ **CAUTION!** Use the Device only with a power grid and appliances that comply with all applicable regulations. A short circuit in the power grid or any appliance connected to the Device may damage it.
⚠ **CAUTION!** Do not connect the Device to appliances exceeding the given max load!
⚠ **CAUTION!** Do not shorten the antenna.
⚠ **RECOMMENDATION:** Place the antenna as far away as possible from metal elements as they can cause signal interference.
⚠ **CAUTION!** Connect the Device only in the way shown in these instructions. Any other method could cause damage and/or injury.
⚠ **CAUTION!** Do not install the Device where it can get wet.
⚠ **CAUTION!** Do not use the Device if it has been damaged!
⚠ **CAUTION!** Do not attempt to service or repair the Device yourself!
⚠ **RECOMMENDATION:** Connect the Device using solid single-core wires with increased insulation heat resistance not less than PVC T105°C (221°F).

⚠ **CAUTION!** Before starting the mounting/installation of the Device, check that the breakers are turned off and there is no voltage on their terminals. This can be done with a phase tester or multimeter. When you are sure that there is no voltage, you can proceed to connecting the wires.

If you want to use the Device with a push-button, refer to the wiring diagrams shown in Fig. 2 and Fig. 4. For a switch, refer to the wiring diagrams shown in Fig. 1 and Fig. 3.

⚠ **CAUTION!** Use the same power supply for the two load circuits and the Device.

For AC circuits connect both **L** terminals to the **Live** wire and the **N** terminal to the **Neutral** wire. Connect the first load circuits to the **O1** terminal and the **Neutral** wire. Connect the second load circuits to the **O2** terminal and the **Neutral** wire. Connect the first switch/push-button to the **SW1** terminal and the **Live** wire. Connect the second switch/push-button to the **SW2** terminal and the **Live** wire.

⚠ **RECOMMENDATION:** For inductive appliances that cause voltage spikes during switching on/off, such as electrical motors, fans, vacuum cleaners and similar ones, RC snubber (0.1 µF / 100 Ω / 1/2 W / 600 VAC) should be connected parallel to the appliance.
⚠ **CAUTION!** Do not allow children to play with the push-buttons/ switches connected to the Device. Keep the devices for remote control of Shelly Qubino (mobile phones, tablets, PCs) away from children.

EXTENDED USER GUIDE

For more detailed installation instructions, use cases, and comprehensive guidance on adding/removing the Device to/from a Z-Wave network, factory reset, LED signalization, Z-Wave command classes, parameters, and much more, refer to the extended user guide at:

https://shelly.link/Wave2PM-KB-ANZ

SPECIFICATIONS

Power supply	110-240 V AC, 50/60 Hz
Power consumption	< 0.3 W
Power measurement (W)	Yes
Max. switching voltage AC	240 V
Max. switching current AC	10 A per channel, 16 A total, 18 A total peak
Overheating protection	Yes
Overload protection	Yes
Distance	up to 40 m indoors (131 ft.) (depends on local condition)
Z-Wave® repeater	Yes
CPU	Z-Wave® S800
Z-Wave® frequency bands	919,8 MHz
Maximum radio frequency power transmitted in frequency bend(s)	< 25 mW
Size (H x W x D)	37 x 42 x 16 ± 0.5 mm / 1.46 x 1.65 x 0.63 ± 0.02 in
Mounting	Wall console
Screw terminals max. torque	0.4 Nm / 3.5 lbin
Conductor cross section	0.5 to 1.5 mm² / 20 to 16 AWG
Conductor stripped length	5 to 6 mm / 0.20 to 0.24 in
Shell material	Plastic
Color	Black
Ambient temperature	-20°C to 40°C / -5°F to 105°F
Humidity	30% to 70% RH
Max. altitude	2000 m / 6562 ft.

OPERATIONAL INSTRUCTIONS

If the SW1 and SW2 are configured as a switch (default), each toggle of the switch will change the outputs O1 and O2 states to the opposite states - on, off, on, etc.
If the SW1 and SW2 are configured as a push-button in the Device settings, each press of the push-button will change the outputs O1 and O2 states to opposite states - on, off, on, etc.

SUPPORTED LOAD TYPES

- Resistive (incandescent bulbs, heating devices)
- Capacitive (capacitor banks, electronic equipment, motor start capacitors)
- Inductive with RC Snubber (LED light drivers, transformers, fans, refrigerators, air-conditioners)

IMPORTANT DISCLAIMER

Z-Wave® wireless communication may not always be 100% reliable. This Device should not be used in situations in which life and/or valuables are solely dependent on its functioning. If the Device is not recognized by your gateway or appears incorrectly, you may need to change the Device type manually and ensure that your gateway supports Z-Wave Plus® multi-channel devices.

ORDERING CODE: **QNSW-002P16AU**

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