OBLO Living Smart Dimmer EB100

D3W300-ZB-B

ZigBee Control your world

USER MANUAL

Congratulations and thank you for purchasing OBLO Living Smart Dimmer device. Below you will find useful operating guidelines.

DEVICE DESCRIPTION

OBLO Living Smart Dimmer (Illustration 1) is wirelessly controlled wall-mounted light regulator which can operate as a standalone unit or as a part of OBLO Living home automation system. The device is compliant with ZigBee Home Automation (ZHA) 1.2 and is guaranteed to function with any ZHA 1.2-compliant system.
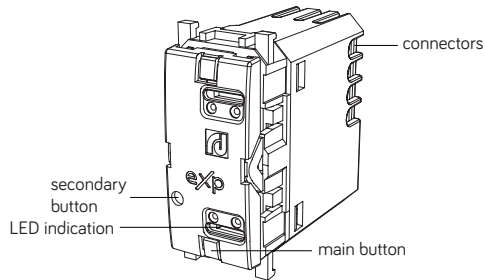

Illustration 1

NOTE:
When pressing secondary button, please use appropriate non-metallic tool.

SUPPORTED LIGHT TYPES

Smart Dimmer supports LED, incandescent and CFL bulbs (Illustration 2).

Illustration 2

MODES OF OPERATION

The device supports two modes of operation:
- SWITCH mode, which is used to turn the lights on or off
- DIMMER mode, which is used to set the dimming level of the light

Switching between Modes

After powering up, the device enters SWITCH mode. In order to change mode of operation to DIMMER, the user should press secondary button 15 times. After successful operation, LED will blink orange 4 times.
To change mode of operation from DIMMER to SWITCH, the user should press secondary button 15 times once again. In this case, LED will blink red 4 times.

NOTE:
Up to 10 seconds after changing mode of operation, do not press any of buttons.

WIRING

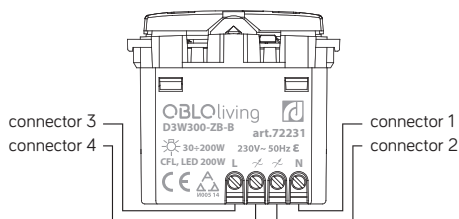OBLO Living Smart Dimmer supports both, 2-wire and 3-wire installation methods.

Illustration 3: Connectors

2-wire installation

2-wire installation method is used when there are phase wire and wire for power consumer available. In this case, the phase wire is connected to the L connector, while consumer is connected to the one of ⚡ connectors. The neutral connector N and the second ⚡ connector are short-circuited (Illustration 4).
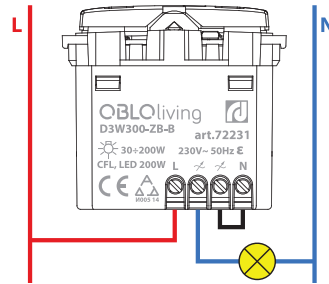

Illustration 4: 2-wire installation

When 2-wire installation method is used, the minimum power load is 30W in case of incandescent bulb and 3W in case of dimmable LED and dimmable CFL bulb, while maximum load is 85% of the maximum power consumption of the attached consumer. The device automatically detects installation method and defines maximum load.

2-wire installation method can be used in case of incandescent, dimmable LED and dimmable CFl bulbs.

3-wire installation

3-wire installation method (Illustration 5) is used when there are phase wire, neutral wire and wire for power consumer available. In this case, the phase wire is connected to the L connector, the neutral wire is connected to the N connector and consumer is connected to the one of ⚡ connectors (⚡ connectors are short-circuited).
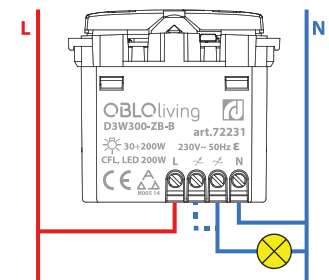

Illustration 5: 3-wire installation

When 3-wire installation method is used, there is no minimum power load defined, while maximum load is 100% of the maximum power consumption of the attached consumer (bear in mind that maximum load limit is 200W for incandescent bulbs and recommendation for LED and CFL is 50W).

3-wire installation method can be used in case of incandescent, dimmable and non dimmable LED and dimmable and non dimmable CFL bulbs.

INSTALLATION

In order to install OBLO Living smart dimmer, please follow the procedure explained below. Installation elements are shown in Illustration 7.

NOTE:
In case you are not sure that you have enough knowledge about electrical wiring, please contact qualified technician to install the device.

1. Turn off power at the electrical circuit at which you will install Smart Dimmer. Do this by switching off the appropriate fuse or MCB in the fuse panel or distribution board. Check the wires with a voltage detector to verify that the power is off.
2. Make sure that electrical circuit is using an appropriate light source according to the above specification.
3. Prepare the wires in wall installation box by removing the insulation. Wire insulation should be stripped back 5mm from the wire end (Illustration 6).
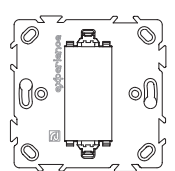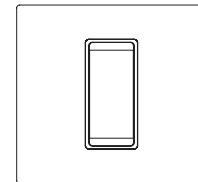

Illustration 6

4. Mount the OBLO Living Smart Dimmer into the wall box by following these steps:
   1) Smart Dimmer should be inserted into the center hole of the mounting frame. Push it from the front until you can hear a click
   2) Connect the wall box wires to the connectors on Smart Dimmer with a screwdriver according to one of the wiring methods explained above (Illustration 4 or Illustration 5). Softly pull conductors to check if they are well fixed.
   3) Carefully put the mounting frame into the box (so that the Smart Dimmer is inside the box) and secure it with screws.

Decorative mask   Mounting frame
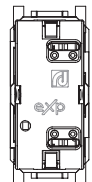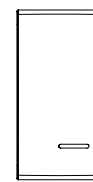
Switch button   Smart Dimmer

Illustration 7: Installation elements

5. Turn on power at the electrical circuit of Smart Dimmer (return fuse or MCB to the original position).
6. Test the Dimmer to see if it is working properly. When turned on for the first time, LED indication should light red. If that is not the case, Smart Dimmer is either defective or has been already added to some ZigBee network. To restore your Smart Dimmer to default factory settings, see section Factory reset.
7. If Smart Dimmer is working properly, you need to configure it to operate as a standalone unit or as a part of OBLO Living home automation system.
8. Place the switch button on the Smart Dimmer. Pay attention to the orientation of the Dimmer - check if pressure on the switch button causes a distinctive "click".
9. Put the decorative mask on the mounting frame and press it until you hear a click.

PREPARATION

After powering up for the first time Smart Dimmer is not associated with any ZigBee network. In order to enable wireless control feature, Smart Dimmer should operate as a standalone unit or as a part of OBLO Living home automation (HA) system.

USER MANUAL

SMART DIMMER AS A STANDALONE UNIT

Please follow the procedure below to enable Smart Dimmer to function as a standalone unit:
1. Create a new standalone ZigBee network:
   1) Press and hold secondary button (approx. 5 seconds). After releasing the button, LED indicator starts blinking red and green alternately
   2) Few seconds later, LED indicator will turn off, which means that new ZigBee network is created and opened for other devices to join it
2. Allow standalone network joining procedure:
   1) Once the network is opened for other devices to join it, it will remain opened for 3 minutes
   2) During this period of time, other devices can join Smart Dimmer's network according to manufacturer's instructions

Add new Smart Dimmer to existing Smart Dimmer's network

In case you would like to add new Smart Dimmer to existing Smart Dimmer's network, please follow next steps:
1. On the existing Smart Dimmer press secondary button once to open ZigBee network. While network is opened, LED will blink green
2. On the new Smart Dimmer press secondary button once to start joining procedure. During joining procedure LED will blink red. After successful joining, LED will blink green no longer than 3 minutes.

NOTE:
In case you would like to assign a specific color of LED indicator to the particular Smart Dimmer status (on/off), press and hold secondary button until LED indicator starts changing its color in the following order – none, red, green, orange. Releasing the button to a particular color assigns that color to the current state of the device (e.g. if Smart Dimmer is on and you release the button while LED indicator is red, the LED will light red whenever the Smart Dimmer is turned on).

SMART DIMMER AS A PART OF OBLO LIVING HOME AUTOMATION SYSTEM

In order to add Smart Dimmer to existing ZHA 1.2-compliant system please follow next steps:

1. On the gateway's side initiate device inclusion procedure according to gateway manufacturer's instructions
2. On the Smart Dimmer press secondary button once to start joining procedure. During joining procedure LED will blink red.
3. After successful joining, LED will blink green no longer than 3 minutes.

PAIR SMART DIMMER WITH OTHER DEVICE

In order to pair Smart Dimmer with device supporting ZHA binding feature please follow the procedure below. The procedure assumes that we are pairing two Smart Dimmers – one as initiator, and the other as target device. For additional information about other pairing options please contact our technical support at support@obloliving.com.

1. Create ZigBee network on Smart Dimmer which has role of target device:
   1) Press and hold secondary button (approx. 5 seconds). After releasing the button, LED indicator starts blinking red and green alternately
   2) Few seconds later, LED indicator will turn off, which means that new ZigBee network is created and opened for other devices to join it
2. Add Smart Dimmer which has role of initiator to target device's ZigBee network:
   1) On Smart Dimmer which has role of target device press

secondary button once in order to open ZigBee network. While network is open, LED will blink green
   2) On Smart Dimmer which has role of initiator press secondary button once in order to start joining procedure. During the procedure, LED will blink red. Upon successful joining, LED will blink green no longer than 3 minutes
3. Pair Smart Dimmer as a target with Smart Dimmer device which has role of initiator:
   1) On Smart Dimmer which has role of target device press secondary button 3 times in order to start pairing procedure. During the procedure, LED will blink orange
   2) On Smart Dimmer which has role of initiator press secondary button 2 times in order to start pairing procedure. During the procedure, LED will blink green
   3) Upon successful pairing, LED will stop blinking on both devices. The end user is now able to control Smart Dimmer which has role of target device from Smart Dimmer which has role of initiator

FACTORY RESET

In order to restore your Smart Dimmer to default factory settings please follow next steps:
1. Press secondary button 10 times to reset the device to factory settings
2. After successful operation, LED will change its color to red

NOTE:
Up to 10 seconds after factory reset, do not press any of buttons.

BUTTONS/FUNCTIONS

BUTTON	Button Operation	Action	LED indication
MAIN	1 x short press	Power ON/OFF	
	2 x short press	Set the dimming level to maximum (DIMMER mode)	
	Long press (more than 2 seconds)	Set light intensity (DIMMER mode)	
		Power ON/OFF (SWITCH mode)	
SECONDARY	1 x short press	Open ZigBee network	Blink green
		Join the gateway's network	Blink red
	2 x short press	Pair as initiator	Blink green
	3 x short press	Pair as target	Blink orange
	Long press (approx. 5 seconds)	Create own ZigBee network	Blink red and green alternately
	10 x short press	Factory reset	Red
	15 x short press	Switch mode from SWITCH to DIMMER	4x blink orange
		Switch mode from DIMMER to SWITCH	4x blink red

TECHNICAL DATA

Communication Protocol	ZigBee
Range	Up to 15m

Load Type	2 wire – incandescent, dimmable LED and dimmable CFL 3 wire - incandescent, non dimmable and dimmable LED and non dimmable and dimmable CFL
Minimum Load	2 wire – 30W incandescent, 3W dimmable LED and dimmable CFL 3 wire – 0W
Maximum Load	200W (recommendation for LED and CFL 50W)
Operating Temperature	0 - 40 °C
Protection Degree	IP20
Power	230V AC, 50Hz
Dimensions	Module W x H x D: 22.2 x 41.5 x 47.1 mm Mask W x H x D (1M, 2M): 97.6 x 91.8 x 4 mm

ATTENTION!

⚠ **WARNING!** Improper use or installation of the device can cause SERIOUS INJURY, DEATH or LOSS/DAMAGE OF PROPERTY.

⚠ **WARNING!** Using Smart Dimmer device in a manner other than outlined in this document is not allowed.

⚠ **WARNING!** Do not use Smart Dimmer to control wall sockets.

⚠ **WARNING!** Do not use Smart Dimmer with inductive or magnetic devices (light sources).

⚠ **WARNING!** Using more than one Smart Dimmer for controlling one light source may cause permanent damage to the devices/wiring system.

⚠ **CAUTION!** Do not try to open or to repair the device by yourself, otherwise SERIOUS INJURY, DEATH or LOSS/DAMAGE OF PROPERTY is possible.

⚠ **IMPORTANT!** Do not overload the device above the recommended limit.

⚠ **IMPORTANT!** If the same installation box is intended for two devices, the maximum power of a single device is reduced to 180W.

DECLARATIONS OF CONFORMITY

Hereby, OBLO Living LLC declares that Smart Dimmer device is in compliance with the essential requirements and other relevant provisions of following European directives:

- Council Directive LVD (2014/35/EU)
- Council Directive EMC (2014/30/EU)
- Council Directive RED (2014/53/EU)
- Council Directive ROHS (2002/95/CE)