



INTERACT³



Value for Money

INTERACT³



User manual

Wireless switch insert/dimmer insert/insert for sun blind

German/English

- 53912.00.101.01 Wireless switch insert (Actuator) (Model ZW ES 1000)
- 53913.00.101.01 Wireless dimmer insert (Actuator) (Model ZW EDAN 300)
- 53914.00.101.01 Wireless insert for sun blind (Actuator) (Model ZW ESJ)

Dear INTERACT³ user:

You can download this user manual in an appropriately larger format from our internet website www.popp.eu.

Our service hotline is available for further product-relevant questions at the service line: +49 (0) 92 73/73-150.

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1. GENERAL INFORMATION ON "Z-WAVE":

INTERACT³ is a radio system that is based on Z-WAVE technology. INTERACT³ offers a varied range of advantages in comparison to other radio systems:

Safe:

Generally radio systems build a direct link between the transmitter and the receiver. The radio signal is attenuated by every obstacle along its path (in the household e.g. wall, furniture etc.), in the worst case the radio system ceases to function. The advantage of the intelligent **INTERACT³** system is the so-called routing function: All devices of **INTERACT³** not only act as transmitter or receiver but also simultaneously as "repeater". Should a direct radio link between the transmitter or the receiver not be possible, communication will be established with the assistance of other devices.

Communicative:

INTERACT³ is a bidirectional radio system. This means that a signal is not just sent but also a feedback confirming the reception of the signal occurs automatically. The safety of transmission of the **INTERACT³** radio-bus-technology is comparable with that of a wire-linked bus system. It is likewise possible to determine the switching status by pushing a button: Has the cellar light been definitely switched off?

Trouble-free:

INTERACT³ transmits at a regulated frequency band with a frequency of 868 MHz. Every **INTERACT³** network has its own unique network identification. Therefore, it is possible to operate two or more independently-operating networks in a room or home without any interferences. Troubles that can be caused by other devices, as is the case in open, non-regulated frequencies (e. g. 433 MHz) are excluded.

Established:

Although the **Z-Wave technology** is new, it has already developed to form a technical standard. Renowned manufacturers from various fields offer solutions and applications that are based on **Z-Wave technology** and compatible among one another. This makes the system fit for the future and promises further upgrade phases. Further information can be found on **www.z-wave.com**.

Dynamic:

INTERACT³ is equipped with a dynamic network structure. Right from the start, the position of the individual **INTERACT³** device who are supplied with 230 Volts is monitored and automatically updated in the case of changes. As a means of which it is possible to continuously adapt the network to its individual requirements, wholly automatically without the necessity of any programming tasks.

2. GENERAL INFORMATION:

2.1 COLOR CODES AT THE EQUIPMENTS:

Red:	Device defective/ Configuration not successful.
Green:	Configuration successful.
Blinking green:	Configuration mode active.
Blinking red/green:	Device not programmed.

3. BEFORE INSTALLATION/STARTUP:

Please read carefully the enclosed user manual before installation of the radio-actuator, in order to ensure an error-free functioning.

ATTENTION: Works with 230 voltage networks may be done only by authorized technicians under consideration of the country-specific installation guidelines/norms. Prior to the assembly of the product, the voltage network has to be switched off and ensured against re-switching.

The product is permitted only for proper use as specified in the user manual. Any kind of guarantee claim has to be forfeited if changes, modifications or painting are undertaken. The product must be checked for damages immediately after unpacking. In the case of a damages, the product must not be operated in any case.

If a danger-free operation of the equipment cannot be assured, the voltage supply has to be immediately interrupted and the equipment has to be protected from unintended operation.

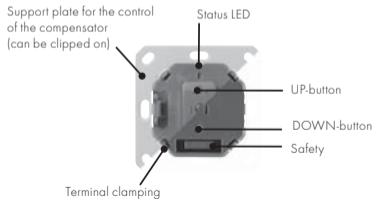
NOTE: The actuators are dispatched in the delivery state "not programmed". While installation or actuating the push-button, this status is showed by a blinking red/ green LED.

4. PRODUCT DESCRIPTION:

Wireless switch insert: (Actuator switch)
(53912.00.101.01) (Model: ZW ES 1000)

Wireless dimmer insert: (Actuator dimmer)
(53913.00.101.01) (Model: ZW EDAN 300)

Wireless insert for sun blind: (Actuator Jalousie)
(53914.00.101.01) (Model ZW ESJ)



Switch/Dimmer: Serves for the switching or dimming of connected lights either via radio signals or directly over clipped-on radio-rockers.

Sun blind control: The INTERACT³ wireless insert of sun blind is for the wireless opening and closing of window blinds, shutters, sun blinds and electronic gates. The wireless sun blind automatically turns off the contact after about 2 minutes (value set at delivery) in order to protect the motor.

The different flush-mounted inserts act as actuators.

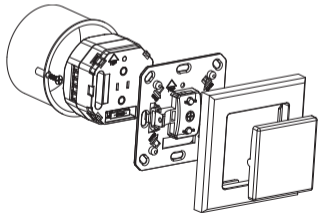
NOTE: The use of flush-mounted insert with equipments that do not comply with the technical standards can cause malfunctioning or damage connected equipments or flush-mounted inserts.

Installation:

The build-in can be controlled both by using clipped-on rockers, as well as wireless wall switch or remote control. The assembly must take place in a voltage-free state by an authorized electrical technician. Turn off the power supply prior to the mounting and confirm the absence of voltage with a 2-pin voltage checker. Protect your installation from re-switching. An assembly in built-in sockets is possible. As a result of the compact design, the wireless switch/ dimmer can be fastened to canopies (depth min. 30 mm), sun blinds and suspended ceilings, etc.. For facilitating this purpose, the clipped-on switch or base plate may be removed.

Typical application:

With the help of a flush-mounted insert, an existing switch installation can be enhanced to a wireless-capable one. The existing switch is replaced by the wireless insert including support ring and the radio-rocker. It can also be manually switched as before, however, it can also be alternatively remote-controlled by means of a controller (remote control or wall switch).



5. FUNCTION/OPERATION:

5.1 NETWORK INCLUSION:

For the network inclusion of the wireless switch/dimmer, you need a controller (remote control or wall switch).



Press 3 times
in each case

Press the **"UP"** or **"DOWN"** button on the desired group/scene of the remote control or the wall switch three times (blinks green) and then three times on the device to be included: The device is automatically associated with the selected group/scene or wall switch.

NOTE: If a radio link should not be possible while network inclusion, please bring the controller closer to the radio insert.
NOTE: For the programming, both the controller as well as the built-in actuator have to be supplied with power.

5.2 SPECIAL ADJUSTMENT

5.2.1 ADJUSTMENT OF THE OPERATING TIMES OF THE SUN BLIND CONTROL:

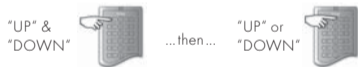
If a wireless sun blind control is integrated for the first time into an **INTERACT³** network, it is recommended that an adjustment of the operating times is undertaken, so that the window blind control can be included in the scenarios without any difficulty.


Background information: A shutter/window blind does not necessarily have identical operating times in the UP and the DOWN directions. The window blind control has to be adjusted to this, so that a desired, preset value (e.g. window blind to 80%) is attained both in the upward as well as downward motion.

For the adjustment of the operating times of the wireless sun blind please follow the below instructions:

NOTE: Please note that you have to possibly remove the mounted rocker of the window blind for this programming step.

NOTE: The window blind must first be driven along the upward direction up to the end stop. The reduction of the operating time must be started from the upper maximum position, if not the programmed values would be falsified.



1. Move the window blind along the upward direction up to the end stop 
2. Simultaneously press the **"UP"** and **"DOWN"** buttons of the radio-controlled wireless window blind for 2 seconds, the LED blinks green.
3. Move the window blind with the **"UP"** or **"DOWN"** buttons of the radio-controlled wireless window blind along the intended direction. During this measurement time, the LED promptly blinks green.

4. Release control in the target position. The window blind stops, the LED of the control system confirms the successful folding with a 3 second green light and a failed folding with a red light.

NOTE: The set values remain stored even after a power failure. The adjustment process of the operating times can be repeated anytime.

NOTE: Should the adjustment of the operating times take place with the help of the configuration tool of a third-party manufacturer, you can consider the following values as the basis: Please note that the adjustments should be undertaken only by well-versed technicians.

0x00	= no interruption/permanent operation
0x01-0x7F	= 1 second to 127 seconds in 1-second steps
0x80-0xFE	= 130 seconds (0x80) to 1390 seconds (0xFE) in 10 second-steps
0xFF	= factory settings 120 seconds

5.2.2 ADJUSTING THE STOP-FUNCTIONALITY:

You can also program the shutter actuator in a way, that in case of a press in the apposite direction, the shutter won't stop, but continue directly in the opposite way (Z-Wave conform). Please proceed as follows:

- Hold the "UP" and "DOWN" button of the shutter actuator simultaneously for 5 seconds. **Please note, that the device must not be included in the network!**
- Alternatively by configuration command (only for adviced users): Set the configuration value "1" to the value "0" in order to disable the stop-functionality.

In order to onable the stop-functionality, please proceed as follows:

- Hold the "UP" and "DOWN" button of the shutter actuator simultaneously for 5 seconds. **Please note, that the device must not be included in the network!**
- Alternatively by configuration command (only for adviced users): Set the configuration value "1" to the value "1" in order to enable the stop-functionality.

5.3 SYNCHRONOUS SWITCHING OF THE VARIOUS DEVICES

The different build-in offer the possibility to link up to 4 devices among one another. Thus, several devices can be switched or dimmed simultaneously. One differentiates between:

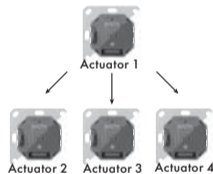
One-way connection: A dimmer passes on a signal to another (one predominates the other).



By dimming of the first actuator, for instance, by 10 %, all other actuators are likewise dimmed by 10 %. However, each actuator can still be manually adjusted.

Practical example:

While entering the living room all the lights turn on, however, later on they can be individually dimmed as desired.

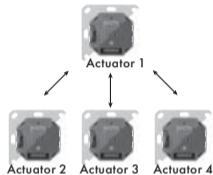


REMARK: If the actuators at the radio remote control are divided into different groups, then the manual setting can also be remotely controlled.

2-way connection: Both are equivalent, it can be controlled by both one of them as well as the other.



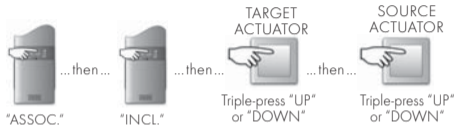
In contrast to the 1-way connection, an additional feedback connection is programmed. Thus, all the 4 actuators can be operated irrespective of which one of the 4 actuators. An individual switching is not possible in the above-illustrated example.



Practical example:

In the case of spacious rooms such as office spaces, in which different lighting regions are allocated to different outer cables.

5.3.1 SETTING UP A ONE-WAY LINK:



1. Press the **"ASSOC."** button on the controller for two seconds.
2. Subsequently press the **"INCL."** button on the controller.
3. Target actuator: Triple-press the **"UP"** or **"DOWN"** button on the actuator to be enabled within a span of 1.5 seconds.
4. Source actuator: Triple-press the **"UP"** or **"DOWN"** button on the actuator to be enabled within a span of 1.5 seconds.

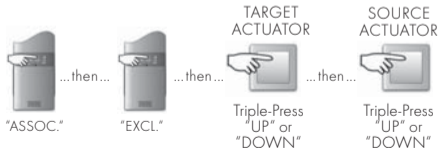
The successful link is signaled by a green light, whereas a failure is indicated by a red light.

5.3.2 SETTING UP A 2-WAY LINK:

For the formation of a 2-way link or to be able to reciprocally switch the equipments, the programming step of point 5.3.1 has to be repeated, whereby this time the source and the target equipments have to be swapped.

5.4. DELETING OF LINKS:

For deletion of links, the link has to be deleted in the case of the respective source device i.e. in a 2-way link, we have to deal with 2 source devices, whereby the respective link has to be deleted.



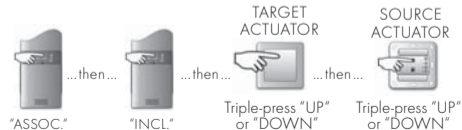
1. Press the **"ASSOC."** button on the controller for two seconds.
2. Subsequently press the **"EXCL."** button on the controller.
3. Triple-press the **"UP"** or **"DOWN"** button on the target actuator within a span of 1.5 seconds.
4. Triple-press the **"UP"** or **"DOWN"** button on the source actuator thrice within a span of 1.5 seconds.

NOTE: If a link with a wireless wall transmitter has to be deleted, the same has to be present in the direct radio-range of the receiver.

5.5 ASSOCIATION OF DEVICES WITHOUT DIRECT RADIO LINK ("ASSIGNED ASSOCIATION"):

In some cases, it can happen that the wireless wall switch to be associated is already mounted, but has no direct radio-communication with the receiver. Thanks to the routing function, a direct radio-communication is not directly needed anymore for switching as the signals can be forwarded over further devices. In order to associate the wireless wall transmitter in such a case, you must seek the help of another controller, with the help of which you can adapt the "out of range" wall transmitter.

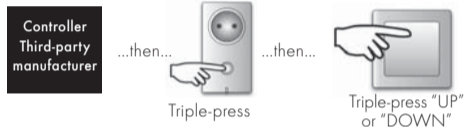
Please take note of the following instructions:



1. Go to the desired target actuator with the help of a controller of your choice.
2. Press the **"ASSOC."** button on the controller for 2 seconds.
3. Short-press the **"INCL."** button on the controller.
4. Triple-press the **"UP"** or **"DOWN"** button or the **"FUNCTION"** button on the target actuator within a span of 1.5 seconds.
5. Go with the controller in your hand towards the wireless wall transmitter to be adapted.
6. Triple-press on the **"UP"** or **"DOWN"** button on the wireless wall transmitter within a span of 1.5 seconds.

The successful association is signaled by a green light whereas a failure is signaled by a red light.

5.6 INCLUSION OF THE ACTUATOR INTO NETWORK OF OTHERS MANUFACTURES:



Start the inclusion step on the concerned controller of its network and triple-press the **"FUNCTION"** button of the equipment to be included within a span of 1.5 seconds..

NOTE: For information on handling or starting the inclusion step of products of other manufacturers, please read the documents of the respective manufacturer.

6. USE/HANDLING:

The build-in actuator can be operated either over a controller (remote control or wall switch) or directly by means of a clipped-on rocker.

Wireless switch insert: switched on/off by a short press.

Wireless dimmer insert: in the case of dimmer, there is the additional possibility of dimming UP/DOWN by a long-press of the rocker.

Wireless insert for sun blind: moved UP/DOWN by a short push. The movement can be stopped by a short pressing in the opposite direction. A long-press or holding of UP/DOWN directs to the corresponding direction, as long as the rocker is held.

6.1 SPECIAL FUNCTIONS OF WIRELESS DIMMER INSERT:

The wireless dimmer insert saves the most recently-set light intensity and automatically switches back to the same level of brightness at which it was switched off..

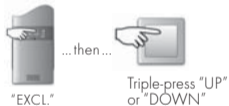
6.2 SPECIAL FUNCTIONS – CHILD PROTECTION:

If the radio plug adaptor is present in the “child protection mode” (also see the user manual wireless wall switch or remote control), this can be disabled by triple-pressing the **“FUNCTION”** button within a span of 1.5 seconds. After 5 seconds of inactivity, the tamper-proof “child protection mode” is automatically reactivated.

KINDLY NOTE: The description for activation or deactivation of the child protection function is described in the user manual of the remote control/wall switch!

7. RESET:

Sometimes it might be necessary to reset the device to the factory settings and delete all the programming steps or associations. For resetting, a controller (remote control or wall switch) is needed.

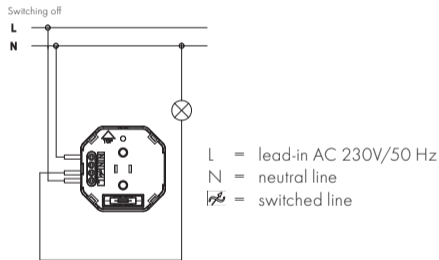


1. Press the **"EXCL."** button on the controller for 2 seconds, the LED blinks green.
2. Triple-press the **"UP"** or **"DOWN"** button on the peer to be reset to the factory settings within a span of 1.5 seconds.

The successful reset operation is signaled by a green light, whereas a failure by red light.

8. ELECTRICAL LEADS:

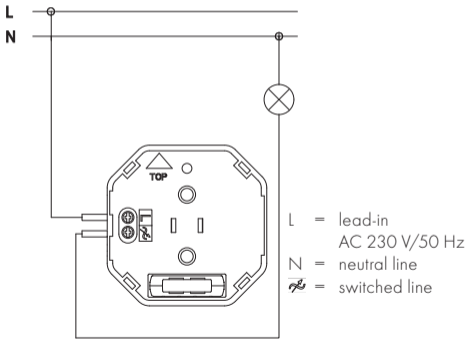
8.1 SWITCH WITH 3-WAY TECHNOLOGY:



NOTE: neutral line is indispensable for the functioning of the receiver!

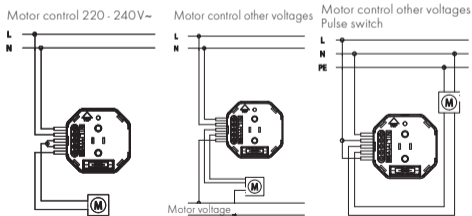
8.2 SWITCH WITH 2-WAY TECHNOLOGY:

Switching off



8.3 SUN BLIND CONTROL:

- L = brown or black
- N = blue
- COM c = switch line-in (voltage-free)
- 1 (OUT) = switch contact (line-out)
- 2 (OUT) = switch contact (line-out)
- L (IN) = brown or black (voltage supply)
- N (IN) = neutral line blue (voltage supply)
- PE = protection line green/yellow

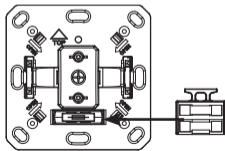


8.4 MICRO-FUSE:

Wireless dimmer insert (53913.00.101.01) T 1,25 A H
(Load 1.25 Ampere, high shutdown capacity) D: 5 mm, L: 20 mm

Wireless switch insert (53912.00.101.01) T 10 A H
(Load 10 Ampere, high shutdown capacity) D: 5 mm, L: 20 mm

Wireless insert for sun blind (53914.00.101.01) T 8,0 A H
(Load 8.0 Ampere, high shutdown capacity) D: 5 mm, L: 20 mm



NOTE: The micro-fuse deals with a backup for the equipment that is specifically designed to this radio-controlled wireless dimmer/ switch. Please use only this fuse type. This micro-fuse should protect this radio-controlled wireless dimmer/ switch from overload and short circuits. When using another fuse component there is a danger that the device can be destroyed. A spare fuse is provided in the fuse holder.

TROUBLE NOTES: All devices of the system have to be included, therefore, all the articles of the INTERACT³ radio system can be combined. The transmission or reception range is up to 100 m in free field and is dependent on the onsite prevailing conditions.

9. TECHNICAL DATA:

Wireless switch insert (model ZW ES 1000)

Receiving frequency:	868.42 MHz
Switching capacity:	2,300 W, 460 VA, 600 W, incandescent bulbs
Operating voltage:	230 V, 50 Hz
Micro-fuse:	T 10 A H
Dimensions (H x W x D):	52 x 52 x 31 mm (without cover) 71 x 71 x 42 mm (with cover)
Operating temperature:	0°C to +40°C

Wireless dimmer insert (model ZW EDAN 300)

Receiving frequency:	868.42 MHz
Switching capacity:	HV-, NV-Halogen-, incandescent bulbs 25 - 300 W, 40 - 300 VA
Operating voltage:	230 V, 50 Hz
Micro-fuse:	T 1,25 A H
Dimensions (H x W x D):	52 x 52 x 31 mm (without cover) 71 x 71 x 42 mm (with cover)
Operating temperature:	0°C to +40°C

Wireless insert of sun blind (model ZW ESJ)

- Receiving frequency:** 868.42 MHz
- Switching capacity:** ohmic 1,800 W
460 VA (motors + luminescent lamps)
500 W incandescent bulbs
- Operating voltage:** 230 V, 50 Hz
- Switching time:** 2 minutes (time period is factory set)
- Micro-fuse:** T 8 A H
- Dimensions (H x W x D):** 52 x 52 x 31 mm (without cover)
71 x 71 x 42 mm (with cover)
- Operating temperature:** 0°C to +40°C

All the above-mentioned products comply with the norms only in indoor use: RTTE 1999/05/EG, EN 60669.

WRONG APPLICATIONS: Do not operate any equipments that could cause damages while inadvertently turning on (e.g. disk saw). Operate only equipments that are approved for operating at 230 V/ 50 Hz. Do not use radio-controlled wireless dimmer/ switch in security areas (e.g. as emergency switch or alarm). Load the wireless dimmer/switch only up to the specified maximum load.

10. GUARANTEE:

The products of the **INTERACT³**- series are fabricated by means of modern technology and are subjected to strict quality controls. Should defects still occur in your equipments, the POPP GmbH offers guarantee to the following extent.

1. Our guarantee offer comprises the repair or new delivery of an equipment, if it exhibits a defect in the function or material composition that can be proven.
2. The guarantee offer is not based upon the natural wear and tear or transport damages or damages as a consequence of not paying attention to the installation instructions as well as improper installation. One automatically loses the claim to the guarantee offer, if the equipment has been disassembled after diagnosis of errors.
3. The guarantee term amounts to 24 months from the date of purchase by the end-user.

The compliance of the claim period has to be proved by a statement of the purchase date by means of enclosed invoice, delivery note or similar documents.

Batteries, LEDs and rechargeable batteries that are sent along with the delivery are not covered by the guarantee offer.

The POPP GmbH does not accept claims due to indirect, consequential and property damages.

If defects are observed in the equipment, please send the equipment with enclosed description of the defect to the following address:

POPP GmbH
Kulmbacher Straße 27
95460 Bad Berneck

53912.14.02

Juli 2008

REMARK: Note for well-versed users. All-manufacturer Z-Wave-compatible programming functions:

- Start Include mode** Triple-press “INCL.” button of the controller.
- Start Exclude mode** Press “EXCL.” button of the controller for 2 seconds.
- Associate** Press “ASSOC.” button of the controller for 2 seconds, subsequently press the “UP” button on the controller followed by the “send Node Info Frame” of the target equipment.
- Re-include/Replicate** Triple-press the “INCL.” button of the controller followed by the “send Node Info Frame” of the target equipment.

Disassociate

Press the “ASSOC.” button of the controller for 2 seconds, subsequently the “DOWN” button, followed by the “send Node Info Frame” of the target equipment.

Learn Mode

Triple-press “UP” or “DOWN” button.

Send Node Info Frame

- (Slave) triple-press “UP” or “DOWN” button
- (Controller) press “INCL.” for two seconds.

Add node

Triple-press “UP” or “DOWN” button (inclusion or primary controller).



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Value for Money

Please visit our website **www.popp.eu** in the internet and get to know about further innovative products of the POPP GmbH, such as e. g. the professional power outlet strip **adaptus® INTERACT³** with integrated Z-Wave radio technology.

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