



PHILIPS UID8450 ZigBee Green Power Switch and Scene Selector User Guide

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PHILIPS UID8450 ZigBee Green Power Switch and Scene Selector



Product Information

Product Name

- UID8450 ZGP Switch Dim 2B
- UID8460 Switch Scene Recall 4B

Description

The UID8450 is a two-button ZigBee Green Power switch and dim device that comes with a wall mounting plate. It is designed for indoor use such as offices, lobbies, toilets, and corridors, and covered industry areas. The color of the product is white (similar to RAL9016). The UID8460 is a four-button ZigBee Green Power scene selector, including switch lights off, that comes with a wall mounting plate. It is designed for indoor use such as offices, lobbies, toilets, and corridors, and covered industry areas. The color of the product is white (similar to RAL9016).

Features

- Wireless communication using ZigBee PRO standard
- Transmission distance of up to 10m indoors (max 3 walls)
- Polycarbonate UL94 V-2 White (similar to RAL9016) housing
- Compliant with protection rating IP20, EMC emission EN61000-6-2:2005, EMC immunity EN61000-6-3:2007+A1:2011, quality standard ISO 9001, environmental standard Wireless ISO 14001, and R&TTE EMC and Radio ETSI EN 301 489-1:V1.9.2, ETSI EN 301 489-17:V2.2.1 ETSI EN 300 328: V1.8.1

Usage Instructions

Commissioning (Linking)

Before using the ZGP devices, they have to be linked into an existing network. For the UID8450, the rocker/button needs to be removed before the procedure to link it into the network can be performed. For details on the linking procedure, refer to the installation instructions or application guides.

UID8450

The UID8450 is a switch and dim device. Briefly pressing the upper or lower part of the device will either switch the indirectly connected light(s) on or off. A press and hold action will engage the dim-up or dim-down function.

UID8460

The UID8460 is a scene selector, including switch off, device. Briefly pressing one out of three buttons will initiate a scene preset recall, and indirectly connected light(s) will respond accordingly. There are three light levels and a lights off function available. Please note that it is not possible to set scene levels as this device only has a recall function.

Application Example

An application example of one UID8450 (switch and dim) combined with one UID8460 (scene selector), one OccuSwitch Wireless multi-sensor, and a number of ActiLume Wireless DALI gen2 systems is provided in the user manual.

PRODUCT Dimensional Drawings

- UID8450: 86 mm (3.39 in)
- UID8460: 89 mm (3.50 in)

MODEL: UID8450, UID8460

ZigBee Green Power switch and scene selector

- No wiring and power connections required so easy to install and maintenance free.
- Low mechanical force required to operate the device (typically less than 8 Newton).
- Indoor distance that can be covered is typically 10m. for line-of-sight installations. When there are walls this will be reduced depending on the type and thickness of the walls.
- The Philips ZigBee Green Power (ZGP) family consists out of 2 devices.
- One device UID8450 has switch and dim functionality and the other UID8460 has scene selection, including Off, functionality.
- Both devices communicate wirelessly conform the ZigBee Pro standard (IEEE 802.15.4, WPAN). There is no need to connect to any electrical power supply as the devices generate their own power, to communicate, when one of the buttons is pressed (kinetic energy).
- When a button is pressed, or released, a message is send including a unique 32bit identifier preventing interfering with other devices. The receiving device, for example ActiLume Wireless DALI gen2, can detect the time difference between the “press” and “release” action and react on that. For example when wanting to

perform the function switching, the time interval between “press” and “release” is short and the receiving device can react on that in the appropriate way.

- The devices can be linked into for example a network formed with ActiLume Wireless DALI gen2 system(s).
- The devices are easy to install and use. Additional information can be found in the appropriate installation instruction and ActiLume Wireless DALI gen2 application guide.



UID8450 ZGP Switch Dim 2B

- Two button ZigBee Green Power switch and dim. Device is provided with a wall mounting plate. The colour of the product is white (similar to RAL9016).

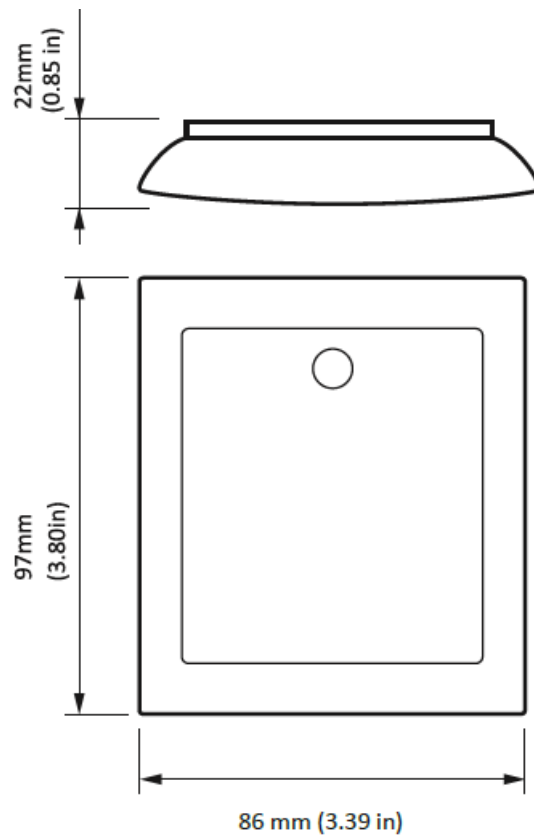


UID8460 Switch Scene Recall 4B

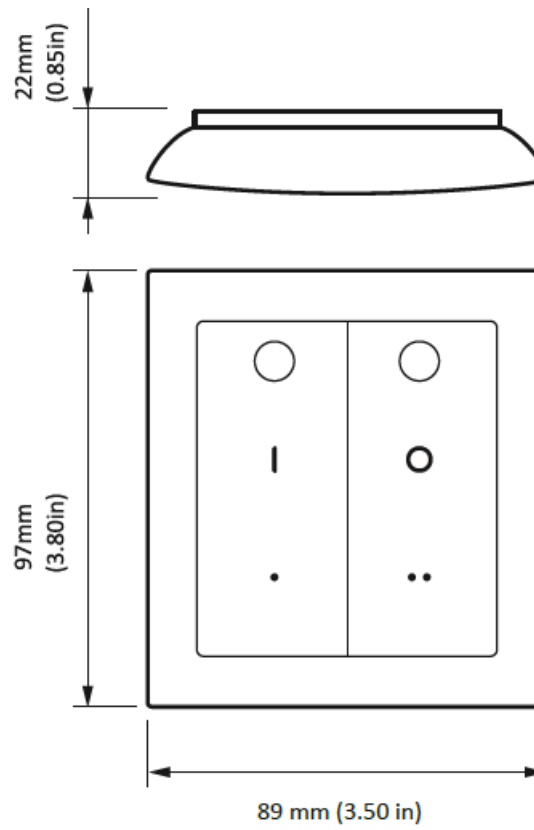
- Four-button ZigBee Green Power scene selector, including switch lights Off. Device is provided with a wall mounting plate. The colour of the product is white (similar to RAL9016).

Dimensional drawings

UID8450



UID8460



Application

Applications

- The ZigBee Green Power devices are ideally suited for indoor use such as offices, lobbies, toilets and

corridors, and covered industry areas.

Commissioning (linking)

Before the ZGP devices can be used they have to be linked into an existing network. For the UID8450 the rocker/button needs to be removed before the procedure to link it into the network can be performed. For details on the linking procedure refer to installation instructions or application guides.

Philips quality

This ensures quality with respect to:

- System supplier
- As manufacturer of lamps, electronic control gear and lighting control equipment, Philips ensures that, from the earliest development stage, optimum performance is maintained.
- International standards
- Philips lighting control equipment complies with all relevant international rules and regulations.

Wireless communication

The Wireless network is based on the ZigBee PRO standard (IEEE 802.15.4, WPAN) which is targeted at radio-frequency (RF) applications. The ZigBee standard operates at 2.4 GHz in most regions worldwide and is supported by multiple HW/SW vendors. The ZigBee protocol enables fully distributed peer-to-peer communication models. This means no master/slave relationship whereby the application is divided over the devices in the network. Every device knows how it functions within the network. The result is that if one device does not function (removed or defect), the remaining devices keep functioning as intended. The network is based on a mesh network so the devices pass on the received commands. The distance between the devices should not exceed 10 meter. The big advantage of this mesh network is the capability that the network has a self-healing routing meaning automatic route discovery over the mesh network. ZigBee has tolerance for a large number of co-located networks due to use of multiple communication channels and CSMA-CA channel access. The commands do have network security according to AES 128-bits network encryption.

The ZGP devices work seamlessly with ActiLume Wireless DALI gen2 systems making the network even more flexible and expandable.

UID8450

- The UID8450 is the switch and dim device from the ZGP family.
- Briefly pressing the upper or lower part of the device will either switch, the indirectly connected light(s), On or Off.
- A press and hold action will engage the dim-up or dim-down function.

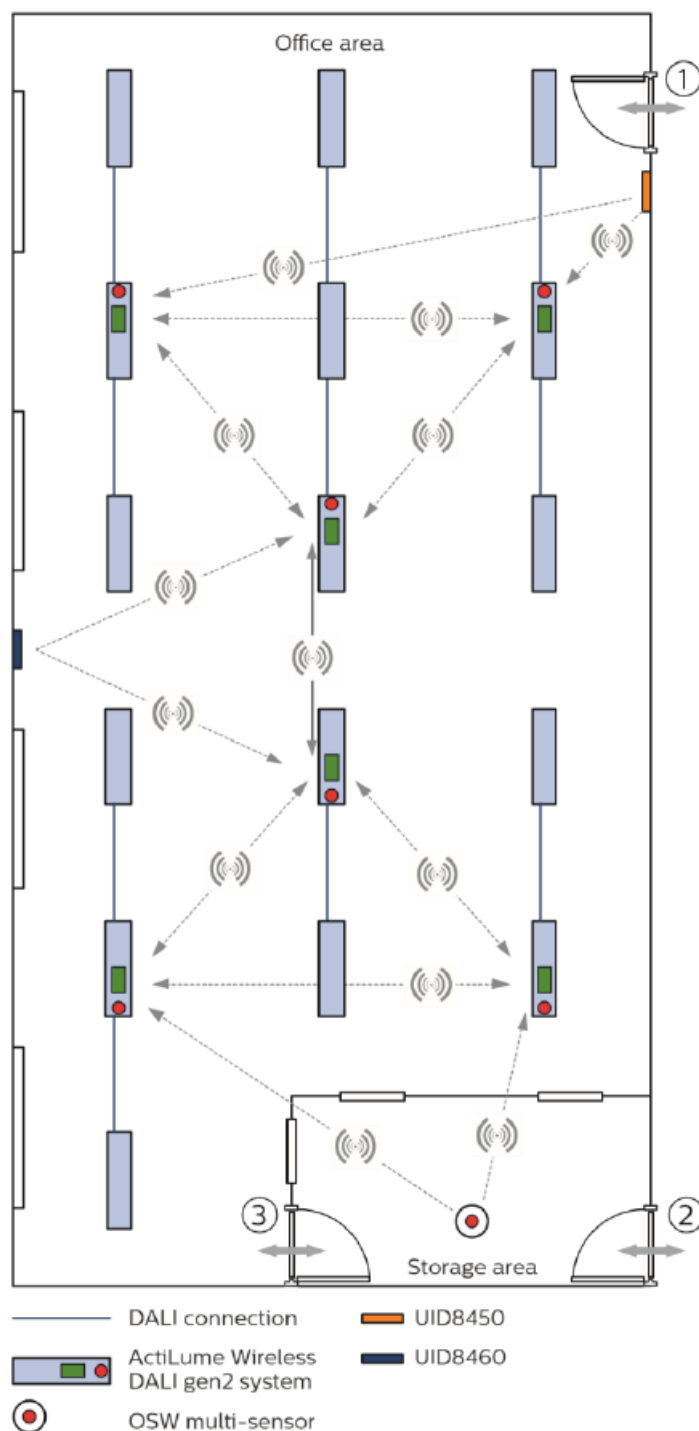
UID8460

The UID8460 is the scene selector, including switch Off, device from the ZGP family. Briefly pressing one out of three buttons will initiate a scene preset recall and indirectly connected light(s) will respond accordingly. There are three light levels and a lights Off function available. Please note that it is not possible to set scene levels as this device only has a recall function.

Application example

This example is a network, in an open plan office, with one UID8450 ZGP switch, mounted near the main entrance door (1), and one UID8460 ZGP scene selector, mounted against the outer wall, combined with six ActiLume Wireless DALI gen2 systems and one OccuSwitch Wireless (OSW) multi-sensor that are mounted in/against the ceiling. Upon entering the office, through the main door (1), motion is detected by the PIR of the ActiLume Wireless DALI gen2 system that is close to the entrance. Occupancy (motion) is relayed across the network to the other ActiLume Wireless DALI gen2 systems and all lights in the office area will switch On with the light level related to scene-1. If desired the light-level can be dimmed-up or down by keeping the upper or lower button of the UID8450 depressed. Each action on the UID8450 will send a message towards the ActiLume Wireless DALI gen2 systems, in this case to dim the light level. The message is relayed across the network and all luminaires will react accordingly.

With the buttons on the UID8460 three light-levels can be selected with the settings of respectively scene-1, 2 or 3. The fourth button on this device can be used to switch the lights Off if for example a presentation with a beamer needs to take place or if the amount of daylight ingress is sufficient. Also here a message is send towards the ActiLume Wireless DALI gen2 systems and is relayed across the network.



Assuming that the light has been switched Off (manual override is active) they will stay off as long as occupancy is detected. Once there is no occupancy being detected the hold timer is activated followed by the prolong timer. If the prolong timer has expired the manual override is deactivated and the system goes back into the automatic mode. The office has an additional entrance (3). Persons that enter the storage area through entrance (2) will trigger the PIR, of the OSW multi-sensor, and this occupancy (motion) signal is relayed towards the ActiLume Wireless DALI gen2 systems. If the lights in the office were Off they will switch On and the windows of the storage area will let enough light pass through to illuminate that area for both storing activities as well as passing through towards the office area through entrance (3). Once the office is entered the light level can be selected with either the UID8450 or UID8460 device. In case that the lights in the office area were already On the storage area is sufficiently illuminated and the motion detection does not initiate a light level change.

Application example of one UID8450 (switch and dim) combined with one UID8460 (scene selector), one OccuSwitch Wireless multi-sensor and a number of ActiLume Wireless DALI gen2 systems.

Specifications

Communication

- **Wireless:** ZigBee PRO standard
- **Data rate:** 250kbps
- **Carrier frequency:** 2.4GHz

Transmission distances (typical values)

- **Indoor (plasterboard):** 10m* (max 3 walls)
- **Indoor reinforced:** 7m* (max 1 wall/ceiling)

Concrete

- Distance is largely influenced by the wall/ceiling material and the angle that the transmitted signal is intersecting with.

Note: fire-safety walls, elevator shafts and so on are considered as shielding.

Environmental

- **Temperature:** 5°C to 45°C (operating)
 - -25°C to 65°C (storage and transport)
- **Relative humidity:** 20% to 95% non-condensing (operating)
 - 0% to 95% non-condensing (storage and transport)

Compliances and approvals

- **Protection rating:** IP20
- **EMC emission:** EN61000-6-2:2005
- **EMC immunity:** EN61000-6-3:2007+A1:2011
- **Quality standard:** ISO 9001
- **Environmental standard Wireless:** ISO 14001

- CE2522
- **R&TTE EMC:** ETSI EN 301 489-1:V1.9.2,
 - ETSI EN 301 489-17:V2.2.1
- **R&TTE Radio:** ETSI EN 300 328: V1.8.1

Physical

Dimensions

- **UID8450:** H 97 mm x W 86 mm x D 22 mm
- **UID8460:** H 97 mm x W 89 mm x D 22 mm

Weight

- **UID8450:** 0.098 kg
- **UID8460:** 0.119 kg

Housing

- polycarbonate UL94 V-2
- White (similar to RAL9016)

Ordering data

- **Full product name:** UID8450/10 ZGP Switch Dim 2B
- **Order code:** 9137 003 64303
- **EAN1:** 8718696 449318
- **EAN3:** 8718696 449325
- **EOC:** 449318 00
- **Full product name:** UID8460/10 ZGP Switch Scene Recall 4B
- **Order code:** 9137 003 64103
- **EAN1:** 8718696 448632
- **EAN3:** 8718696 448649
- **EOC:** 448632 00

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www.philips.com/controls

Documents / Resources



Product guide

UID8450, UID8460

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References

-  [Lighting controls and control systems | Philips lighting](#)

Manuals+.