SHBE10000
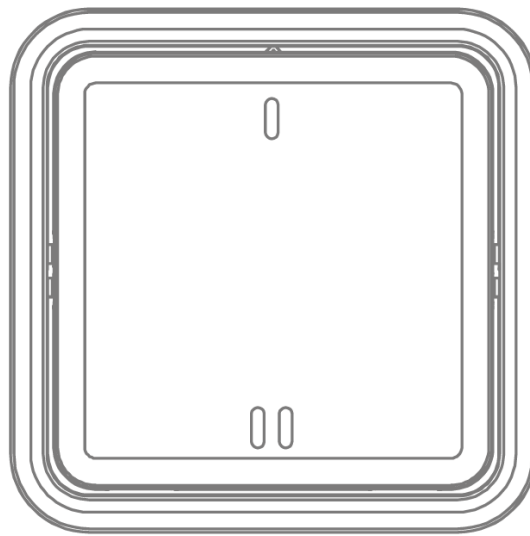# Z-Wave Button

Important notes and FAQs about this product and other products can be found on the Internet page
www.abus.com

Version 1.3

Introduction

Dear customer,

we are pleased that you have chosen our product and thank you for your confidence! You made a good choice.

This pushbutton (hereinafter referred to as the "device") has been developed and manufactured with the utmost care. Please read these operating instructions completely and observe all operating and safety instructions to ensure the best possible handling of the device. This document is intended as an installation and maintenance manual.

If you have any questions, please contact your specialist trade partner

or contact our customer service:

Mail: ABUS Support, Linker Kreuthweg 5, 86444 Affing, Germany

E-mail: support@abus-sc.com

Phone: +49 8207 959 90 888

Hotline opening hours: Mon-Thu: 08 - 17 h; Fri: 08 - 14 h

ABUS Security-Center hereby declares that the enclosed product complies with the following guidelines concerning the product:

RED Directive 2014/53/EU, EMC Directive 2014/30/EU, Low Voltage Directive 2014/35/EU, RoHS Directive 2011/65/EU. The full text of the EU Declaration of Conformity is available at the following Internet address:

www.abus.com/product/SHBE10000

It can also be obtained from the following address:

ABUS Security Center GmbH & Co. KG,

Left Kreuthweg 5, 86444 Affing, GERMANY

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Important safety instructions

Intended Use

Use the device exclusively for the purpose for which it was built and designed! Any other use is considered improper!

Damage caused by non-compliance with these safety instructions will void the warranty. We assume no liability for consequential damages!

Unpack

While unpacking the device, handle it with the utmost care. Packaging and packaging aids are recyclable and should always be recycled.

If the original packaging is damaged, check the unit first. If the device is damaged, return it with packaging and inform the delivery service.

⚠️	**Please make sure that the packaging contains the DSK (Device Specific Key) card. This card shows the DSK of your ABUS Z-Wave device. Please keep them in a safe place. Each S2 (Security 2) certified Z-Wave Gateway requires the DSK to learn the device.**

Installation location Operating environment

Do not place heavy objects on the device. The device is only designed for use in rooms with appropriate temperature or humidity (e.g. bathroom) or with excessive dust. For a precise specification, check the technical data of the individual devices. Ensure that there is always adequate ventilation, no direct heat sources on the device, no direct sunlight or strong artificial light hitting indoor devices, the device is not in the immediate vicinity of magnetic fields (e.g. loudspeakers), no open fire sources (e.g. (e.g. burning candles), contact with splash and drip water on indoor equipment and aggressive liquids is avoided, the equipment is not operated in the vicinity of water, in particular the equipment must never be immersed (do not place objects filled with liquids, e.g. vases or beverages, on or next to the equipment), no foreign objects may penetrate, the equipment is not exposed to strong temperature fluctuations, as otherwise humidity may condense and lead to electrical short circuits, the equipment is not exposed to excessive shocks and vibrations.

Children

Do not allow electrical appliances to fall into the hands of children! Never allow children to use electrical equipment unattended. Children are not always able to recognize possible dangers correctly. Small parts can be life-threatening if swallowed. Keep packaging films away from children. There is a danger of suffocation! This device should not be handled by children. If used improperly, springy parts can jump out and cause injuries (e.g. eyes) to children.

Notes on handling batteries

- Ensure that batteries cannot fall into the hands of children. Children could put batteries in their mouths and swallow them. This can lead to serious damage to health. In this case consult a doctor immediately!
- Normal batteries must not be charged, heated or thrown into an open fire (danger of explosion!).
- The battery must not be directly exposed to any heat source or sunlight and must not be stored in a place with a very high temperature.
- The battery must not come into contact with water.
- The battery must not be dismantled, punctured or damaged.
- The battery contacts must not be short-circuited.
- Replace weakening batteries in good time.
- Always replace all batteries at the same time and use batteries of the same type. Ideally you should use batteries of the same manufacturer as the original batteries, as the device has been tested intensively with these batteries to ensure optimum function.
- Leaking or damaged batteries can cause burns if they come into contact with the skin. In this case, use suitable protective gloves. Clean the battery compartment with a dry cloth.

Cleaning

- Dusty devices must be cleaned. Dust deposits in the air slots can be sucked off or blown out. If necessary, the dust can be removed with a brush.
- The surface can be cleaned with a cloth slightly moistened with soapy water. Only use suitable microfibre cloths for high-gloss surfaces.
- Make sure that no water gets inside the unit!
- Do not clean the appliance in the dishwasher!
- Do not use sharp, pointed, abrasive, corrosive cleaning agents or hard brushes!
- Do not use chemicals!
- Do not clean the device with flammable liquids!

Notes on disposal of the device

Attention: The EU Directive 2012/19/EU regulates the proper take-back, treatment and recycling of used electronic equipment. This symbol indicates that, in the interest of environmental protection, the device must be disposed of at the end of its service life in accordance with the applicable legal regulations and separately from household and commercial waste. The old appliance can be disposed of at the appropriate official collection points in your country. Follow local regulations when disposing of materials. For more details about the take-back (also for non-EU countries), contact your local administration. Separate collection and recycling saves natural resources and ensures that the recycling of the product complies with all health and environmental regulations.
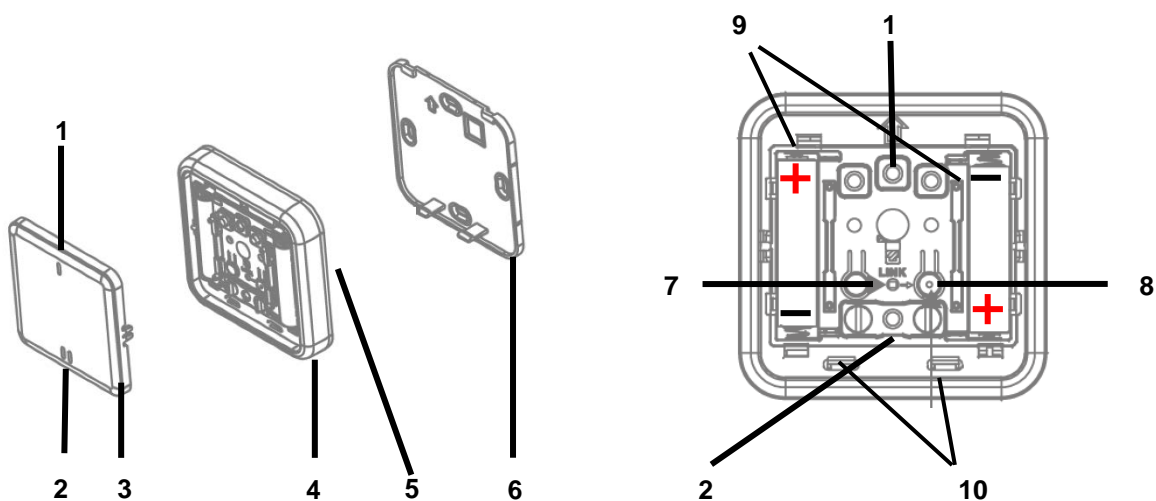
table of contents

1. Product set-up

1.1. Scope of delivery

- ABUS Z-Wave Button
- 2x AAA battery
- Mounting material: screws, dowels, adhesive tape
- Quick guide & safety instructions
- DSK card

1.2. Features

No	designation	comment
1	Button 1	First command key:distinguishes single, double and long press
2	Button 2	Second command key: distinguishes single, double and long pressure
3	Lid	To stick on. Can be easily removed via two openings on the bottom
4	Base	Includes LED, Link button and batteries
5	Base back	Z-Wave QR Code DSK Sticker for S2 Inclusion
6	Bracket	For wall mounting
7	LED Indicator	Status display for various processes (Inclusion, exclusion, reset, error)
8	Link button	Manual triggering of wake-up command, inclusion, exclusion and reset
9	Battery compartment	Mind the polarity
10	Grid for holder	Press here to release the holder from the base

1.3. Operating principle

The device is designed for use in alarm and home automation systems using the Z-Wave radio standard. The device has the following functions:

▪ The rocker double button has 2 buttons (top I and bottom II), for each button a distinction is made between short pressure, double pressure and long pressure.

▪ Up to 3 different scenes can be switched on and off, as the button can send a total of 6 different commands to the Z-Wave Gateway.

▪ Thus, for example, heating up/down, lighting on/off and roller shutters open/closed can be controlled with just one button per room.

▪ Scenes programmed in the Z-Wave Gateway can be safely and quickly switched on and off at the touch of a button without having to open the app.

1.4. Performance characteristics

The device...:

▪ ...is a battery-operated rocker double push button

▪ ...is suitable for wall mounting or flexible positioning, e.g. on the bedside table or living room table, because of its design

▪ ...is Z-Wave PLUS compatible & certified

▪ ...supports the Z-Wave S2 standard (Security 2)

▪ ...has a battery-empty warning function

▪ ...was developed for indoor installation

1.5. Use in systems of different manufacturers

Communication takes place via the Z-Wave EU frequency (868.4 Mhz). You can integrate the device into any Z-Wave network with a certified Z-Wave gateway, regardless of the manufacturer. All non-battery nodes in the network act as amplifiers to amplify the radio communication of the network.
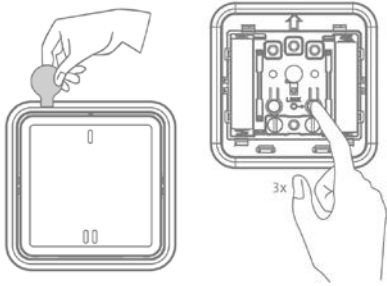
1.6. DSK Code

The DSK Code (Device-Specific-Key) is the device-specific key of your device and is required for secure inclusion via S2 at the gateway. The first 5 digits of the DSK code can be found on the QR Code sticker on the backside of the base of the product. Please enter these digits in the inclusion process when prompted. Alternatively, you can transfer the entire DSK code found on the enclosed DSK card to the gateway via QR code scan. Please keep the DSK card in a safe place!

Hint:

We recommend secure S2 inclusion (must be supported by the gateway). When prompted, please enter the 5 digits of the DSK code (bottom of device) or the entire DSK code (QR code).

2. Functional overview

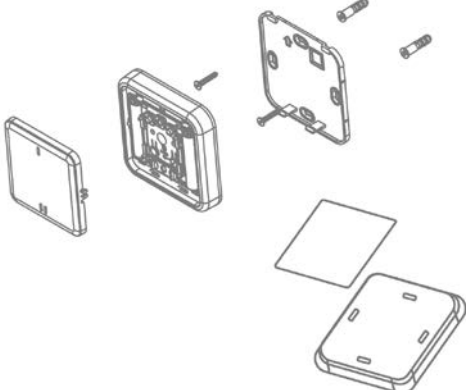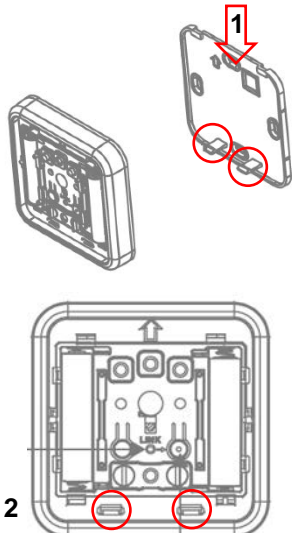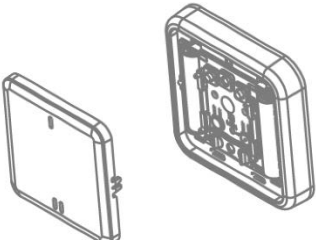### 2.1. Inclusion (Inclusion) / Teach-in device

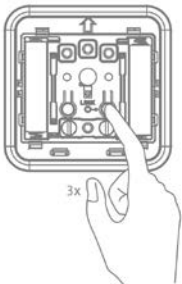|	
	Activate the inclusion mode (teach-in mode) on the gateway. (for further details please refer to the gateways manual) Press the "+" key (Add / Inclusion) in your Z-Wave app and follow the instructions to set the gateway to Inclusion mode.
	Keep the device within range of the gateway. Remove the fuse strip from the battery compartment. The device supports SmartStart function, where inclusion is initiated automatically on power-on, and repeated at dynamic intervals for as long as the device is not included into a Z-Wave network. Z-Wave SmartStart is based on the embedded SDK 6.8x and requires related gateway software components. Alternative Inclusion: If the security strip has already been removed, instead press the Link button 3 times quickly (within 1.5 seconds) to start the inclusion on the device.
	The successful inclusion is displayed in the app or on the gateway and the status LED on the device no longer flashes. Repeat the inclusion process if it was unsuccessful. If another attempt fails, first perform a factory reset on the device, see 2.4.

2.2. Planning, assembly and installation

The device uses low-power radio signals to communicate with the Z-Wave Gateway. To achieve the best results, please note the following:

- Please do not attach directly to metal levels or metal structures as this may limit the range.
- The device has a radio range of up to 40 m.
- The battery life of the device is reduced if the radio connection to the Z-Wave Gateway is not direct but via a repeater.
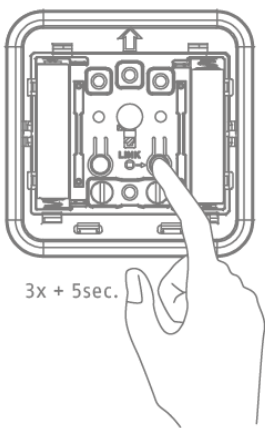
Mounting instructions:

	Fasten the bracket to the wall using the adhesive pad or the screws provided (recommended). Make sure the surface is clean and dry when using the adhesive pad. Do not tighten the screws too tightly to avoid damaging the bracket.
	1 Gently place the base on the holder from above. 2. make sure that the red marked pins snap into place properly. To release the base from the holder, press the latched pins.
	Put on the lid. To loosen the cover again, pull it off carefully from the bottom upwards. There are slots on the underside of the lid where the fingernail can be attached.
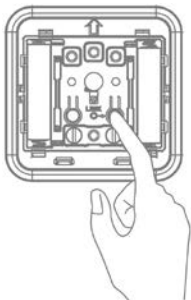
2.3. Exclusion (Exclusion) / Teach device out

	Activate the exclusion mode (learn-out mode) at the gateway. (for further details please refer to the gateways manual) Press the "**-**" key (Remove / Exclusion) in your Z-Wave app and follow the instructions to set the gateway to exclusion mode.
	Press the Link button 3 times quickly (within 1.5 seconds) to start the exclusion on the device.
	The successful exclusion is displayed in the app or at the gateway.

2.4. Reset (factory reset) / reset factory settings

	Press the Link button 3 times quickly (within 1.5 seconds). Press quickly (within 1 second) a fourth time and press and hold the Link button for at least 5 seconds. The button is now reset to factory settings. **Hint:** Please use this procedure only when the network primary controller is missing or otherwise inoperable. If the device is set to factory default, the status is set to "not included" and the association settings and possible configurations are reset to default.

2.5. Wake up device / Wake-up

	Press the Link button 3x to wake up the device. It then establishes a connection to the Z-Wave gateway and transmits the current status.

3. Advanced Z-Wave Parameters

3.1. Association groups

Z-Wave devices can control other devices directly. This direct control is called Z-Wave Association. The device ID of the device to be controlled must be stored in the controlling devices. This is done in so-called association groups. An association group is always linked to an event in the controlling device (keystroke or triggering of a sensor). When this event occurs, a control command - usually a BASIC SET - is sent to all devices stored in an association group.

The device supports three association groups:

group number	Maximum appliances	profile	command class	Group Name
Group 1	1	general	notification report battery report Device Reset Locally Notification Central Scene	lifeline
Group 2	4	control	Basic Set	Button 1
Group 3	4	control	Basic Set	Button 2

Group 1 (the Z-Wave Gateway)
- When the device is powered for the first time, the device sends a notification report to the node of group 1.
- If the battery level falls below a certain threshold, the device sends a battery report to the node of group 1.
- When a factory reset is performed, the device sends a Reset Locally Notification to the node of group 1.
- When button 1 or button 2 is pressed, the device sends a Central Scene Notification to the node of group 1.

Group 2 (direct association with up to 4 terminals - instead of group 1)
- When key 1 is pressed once, the instrument sends a BASIC SET ON command containing an adjustable value to the nodes of group 2.
- If key 1 is pressed twice, the instrument sends a BASIC SET OFF command containing an adjustable value to the nodes of group 2.

Group 3 (direct association with up to 4 terminals - instead of Group 1)
- When key 2 is pressed once, the instrument sends a BASIC SET ON command containing an adjustable value to the nodes of group 3.
- If key 2 is pressed twice, the instrument sends a BASIC SET OFF command containing an adjustable value to the nodes of group 3.

Notification report

Event	type	attribute	Event Parameters length	Event Parameters
Device is supplied with power for the first time	0x08	0x01	nil	

Battery report

value	Description of the
20~100	Battery Level %
0xFF	low battery

Central Scene Report

Event	value	Scenes number
Key pressed 1x	**0x00**	**0x01 / 0x02**
Key released	0x01	0x01 / 0x02
Key pressed and held	**0x02**	**0x01 / 0x02**
Key pressed 2x	**0x03**	**0x01 / 0x02**

3.2. Overview of Supported Command Classes

1. COMMAND_CLASS_ZWAVEPLUS_INFO_V2
2. COMMAND_CLASS_ASSOCIATION_V2
3. COMMAND_CLASS_ASSOCIATION_GRP_INFO
4. COMMAND_CLASS_TRANSPORT_SERVICE_V2
5. COMMAND_CLASS_VERSION_V3
6. COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2
7. COMMAND_CLASS_DEVICE_RESET_LOCALLY
8. COMMAND_CLASS_POWERLEVEL_V1
9. COMMAND_CLASS_BATTERY
10. COMMAND_CLASS_SECURITY
11. COMMAND_CLASS_SECURITY_2
12. COMMAND_CLASS_SUPERVISION
13. COMMAND_CLASS_FIRMWARE_UPDATE_MD_V4
14. COMMAND_CLASS_NOTIFICATION_V8
15. COMMAND_CLASS_WAKE_UP_V2
16. COMMAND_CLASS_CENTRAL_SCENE_V3
17. COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION_V3

3.3. Wake Up Time (Wake Up Time)

The time between the Wakeup Notification Commands can be set in the Wakeup Command Class under the following values:

Description of the	value
Minimum Wake Up Interval	600s (10 minutes)
Maximum Wake Up Interval	86400s (1 day)
Default Wake Up Interval	21600s (6 hours)
Wake Up Interval Step Seconds	600s (10 minutes)

4. Technical data

parameter	SHBE10000
Dimensions (W x H x D)	80 x 15 x 80 mm
weight	57 g
operating temperature	>0° – 40°C
IP class	IP 20 (indoor)
radio frequency	868.42 MHz (Z-Wave PLUS, Europe)
modulation	FSK (BFSK/GFSK)
Transmission power:	< 5 dbm
power supply	3 V DC
battery type	2 x AAA GP
battery life	Approx. 2 years (based on 5 triggers per day)
Sabotage Protection	no
Firmware updateable	Yes, OTA
Z-Wave Manufacturer ID	0x0403
Z-Wave Product Type ID	0x0004
Z-Wave Device ID	0x0005
Z-Wave Beaming supported	No
Z-Wave SmartStart supported	No
Z-Wave Plus supports	Yes
Z-Wave Network Security	Yes
Z-Wave AES-128 Security (S0)	Yes
Z-Wave S2 Security	Yes (S2 Authenticated)
Z-Wave Chip Generation	500
Z-Wave Hardware Platform	SD3502
Z-Wave Library Type	Enhanced 232 Slave
Z-Wave Switch Type	button
Z-Wave Device Type	wall controller
Z-Wave Role Type	Reporting Sleeping Slave
Z-Wave DevKit Version	6.71.03