homematic IP HmIP-STV Tilt and Vibration Sensor Instruction Manual

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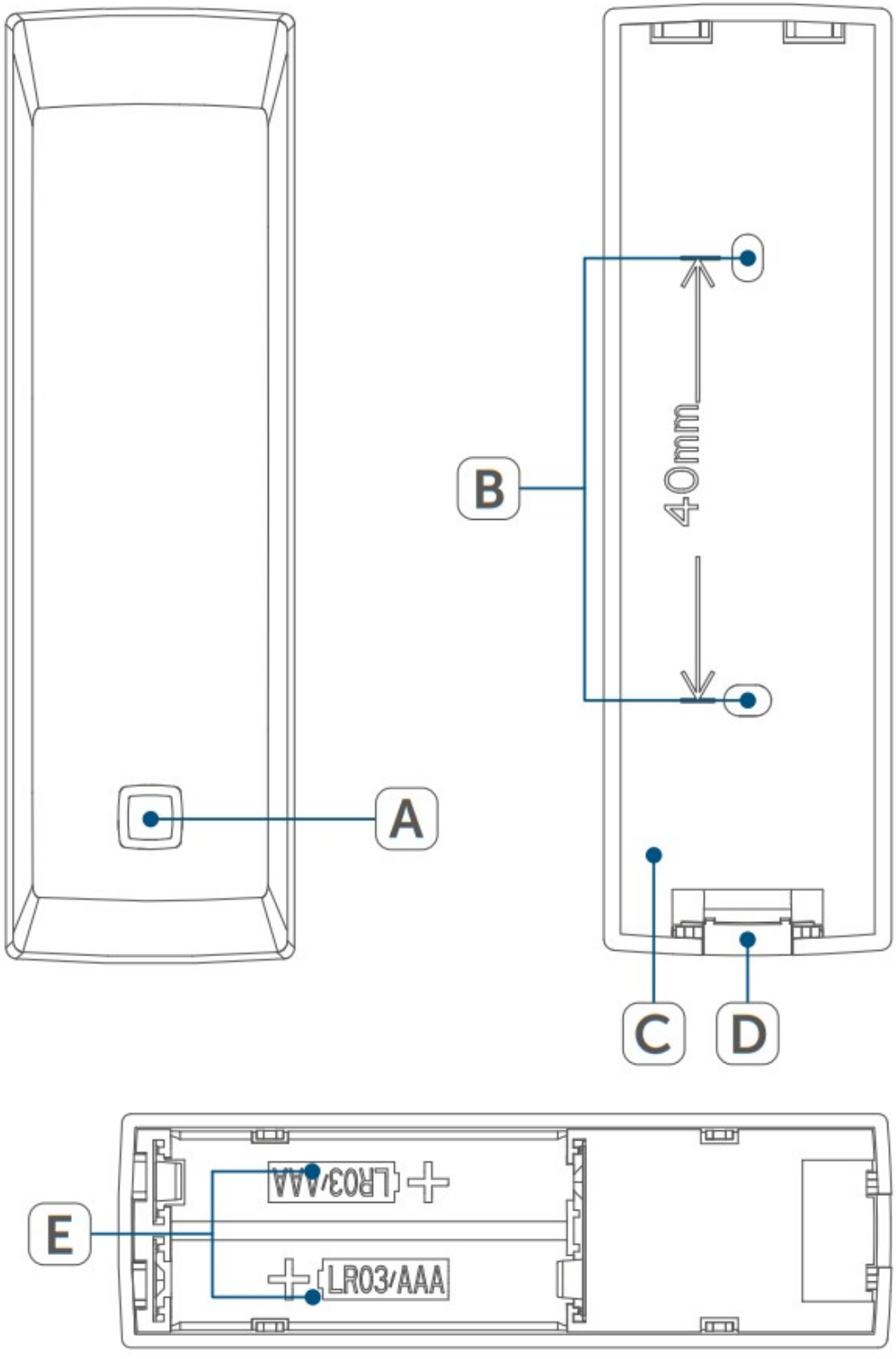

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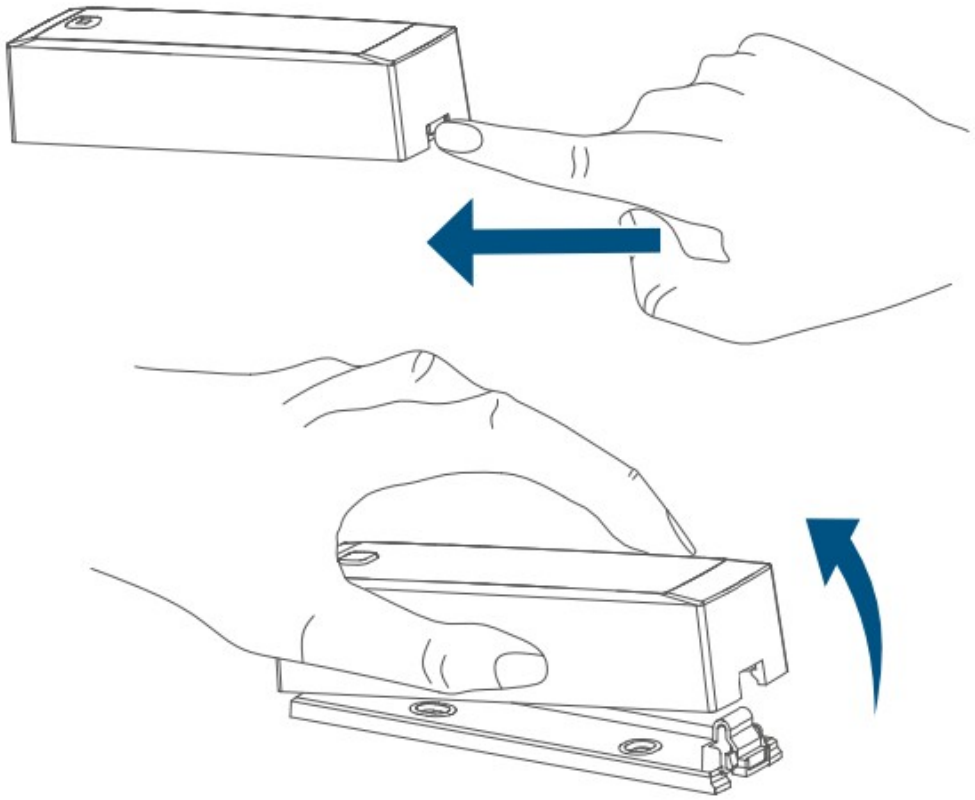

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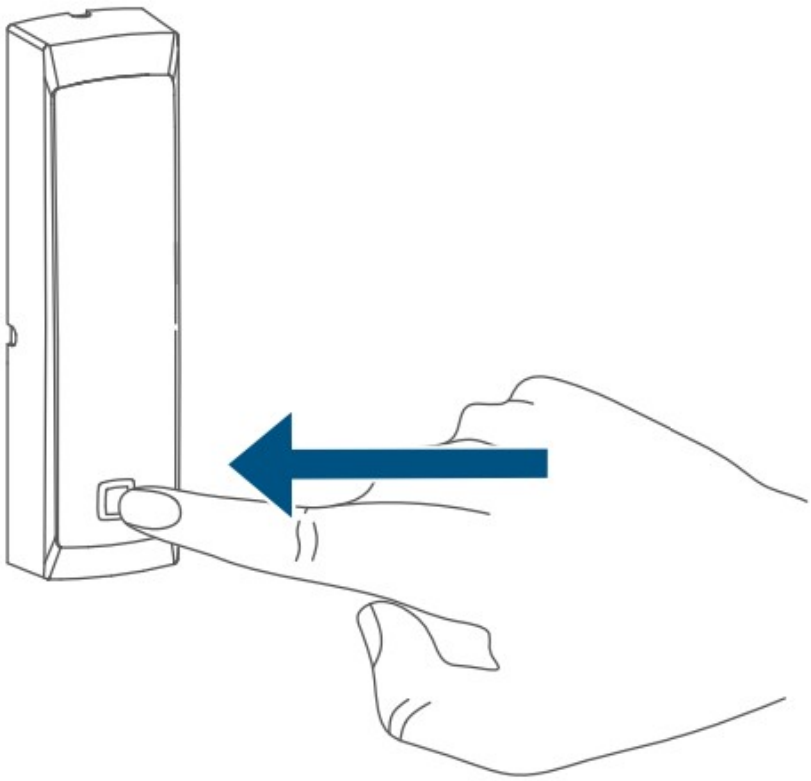

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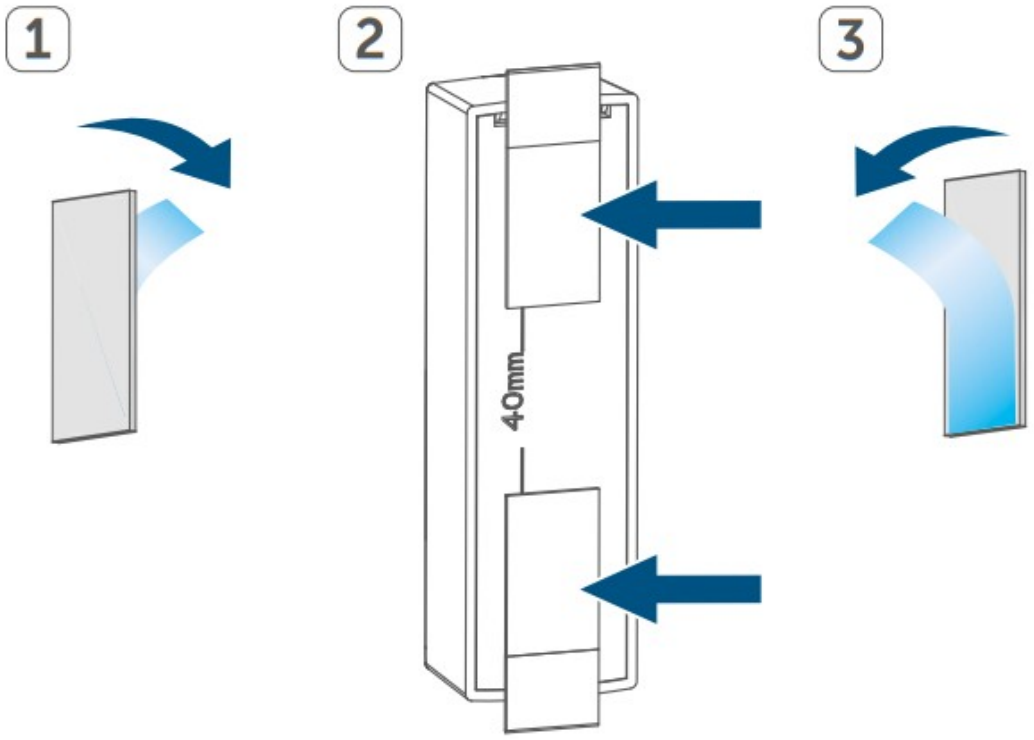

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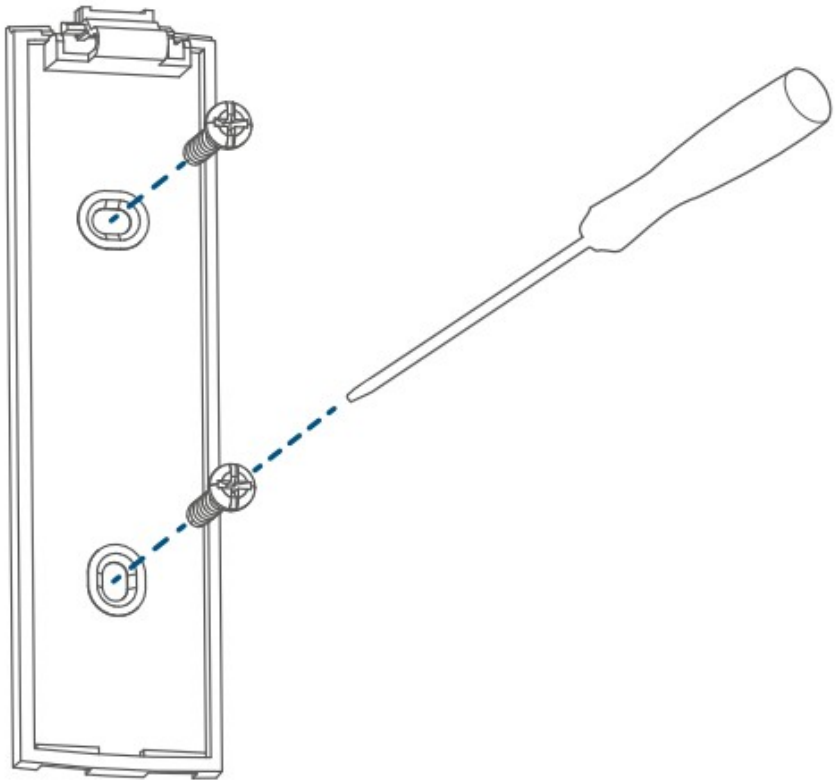

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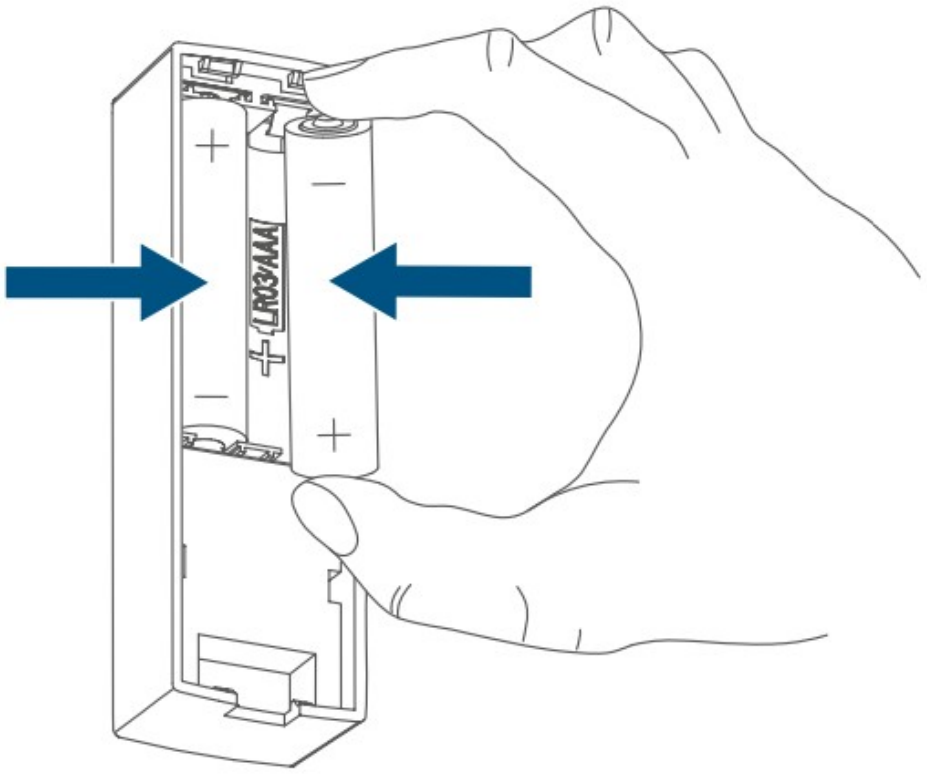

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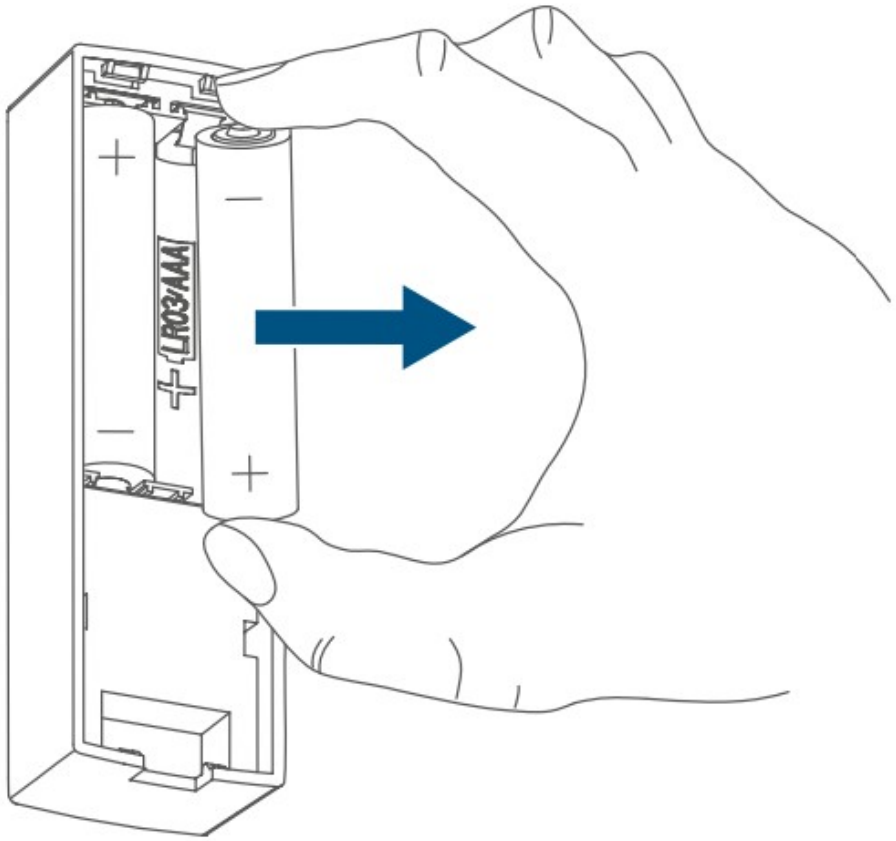

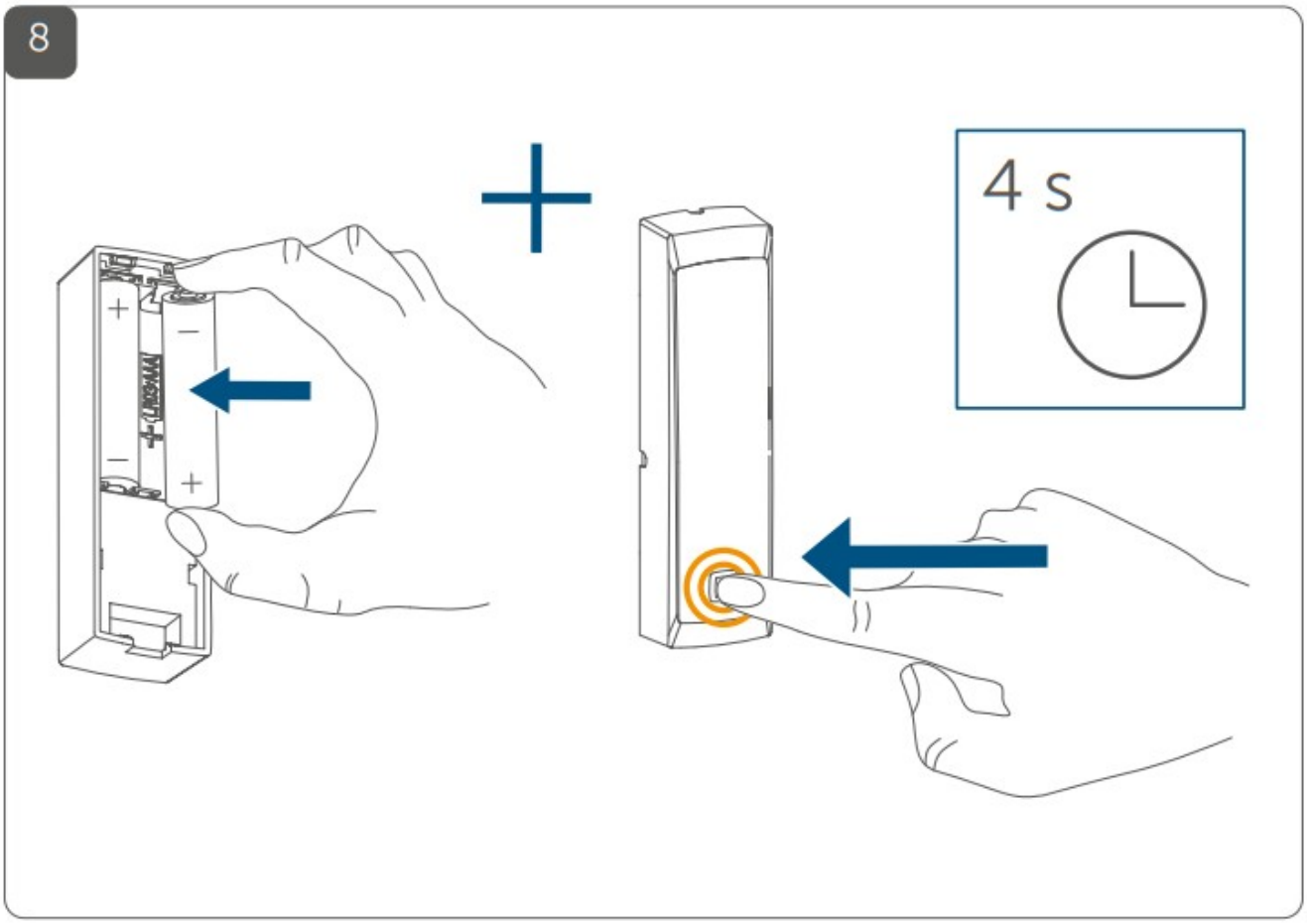

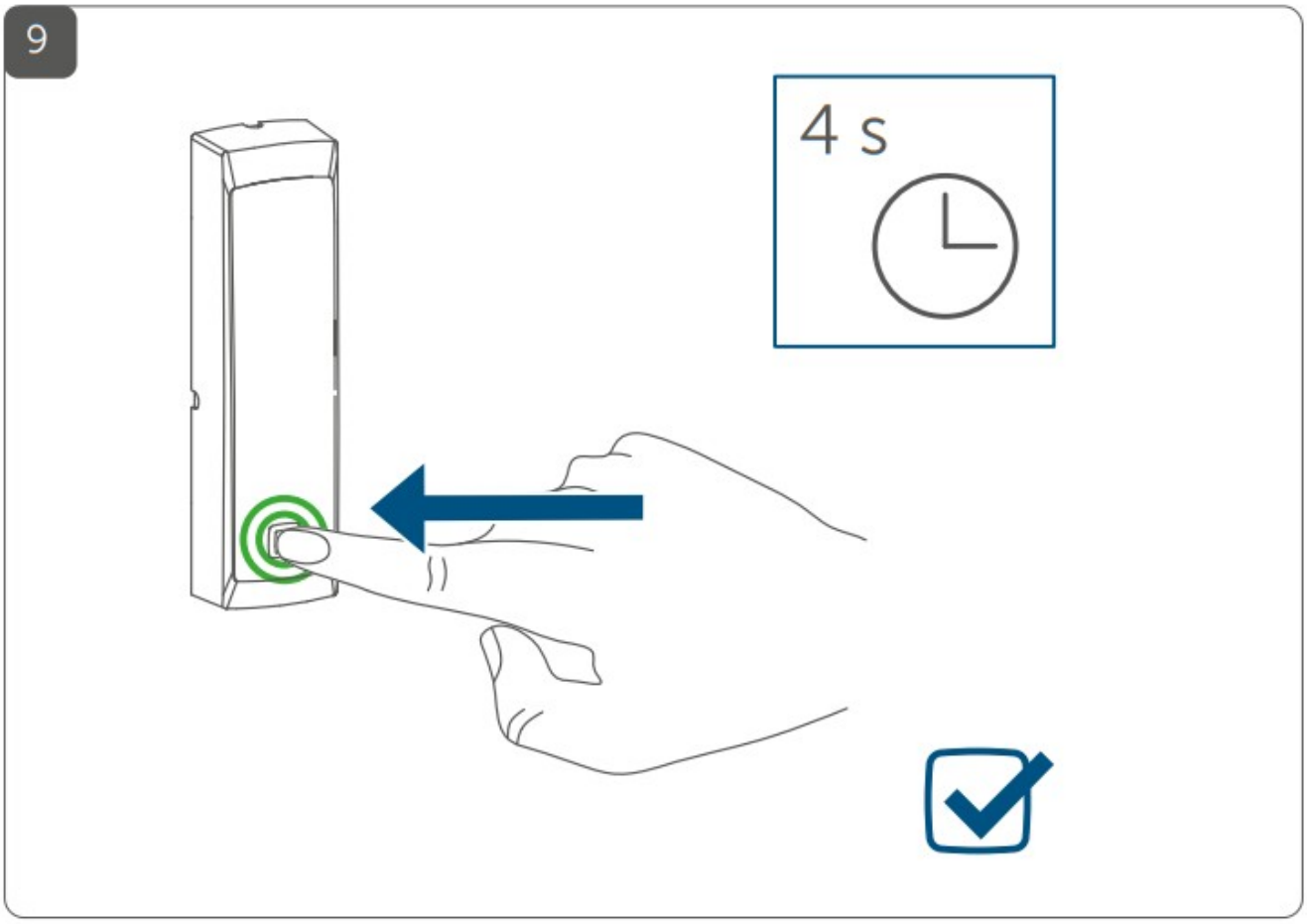

Package contents

Quantity	Description
1	Homematic IP Tilt and Vibration Sensor
2	Double-sided adhesive strips
3	Screws, 2.9 x 9.5 mm
4	1.5 V LR03/micro/AAA battery
5	Operating manual

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Information about this manual

Please read this manual carefully before operating your Homematic IP components. Keep the manual so you can refer to it at a later date if you need to. If you hand over the device to other persons for use, please hand over this manual as well.

Symbols used:

 **Attention!**
This indicates a hazard.
Note.
 This section contains important additional information!

Hazard information

 Do not open the device. It does not contain any parts that need to be maintained by the user. In the event of an error, please have the device checked by an expert.

 We accept no liability for damage to property or personal injury caused by improper use or the failure to observe the hazard warnings. In such cases, all warranty claims are void. We accept no liability for any consequential damage.

 For safety and licensing reasons (CE), unauthorized change and/or modification of the device is not permitted.

 The device may only be operated in dry and dust-free environment.

It must be protected from the effects of moisture, solar or other methods of heat radiation, excessive cold and mechanical loads.

The device is not a toy: do not allow children to play with it. Do not leave packaging material lying around. Plastic films/bags, pieces of polystyrene, etc. can be dangerous in the hands of a child.

The device must only be operated within residential buildings.

Using the device for any purpose other than that described in this operating manual does not fall within the scope of intended use and will invalidate any warranty or liability.

Function and device overview

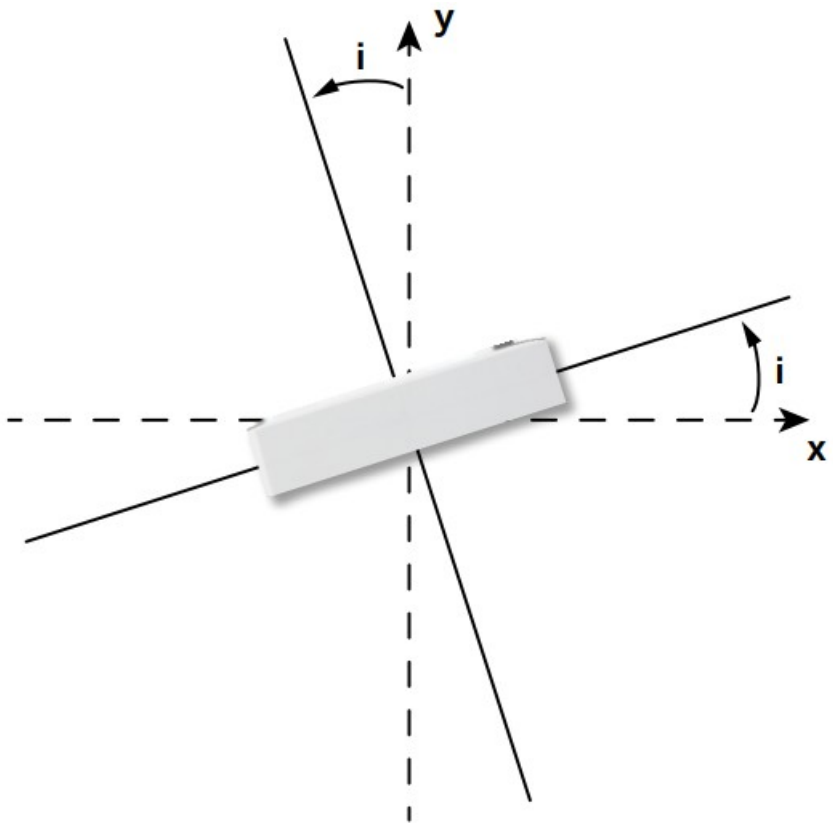
The compact Homematic IP Tilt and Vibration Sensor, which is easy to install, reliably detects position changes of 10–45 degrees and vibrations at the desired installation position. The device can be used flexibly in indoor rooms or in weatherproof outdoor locations.
The Tilt and Vibration Sensor can be used with versatility in the Homematic IP System to register movements or changes, e.g., at garage doors, windows, letterbox flaps and containers.
Expanded configuration options, such as defining the triggering threshold for vibrations or setting the triggering angle in position detection are also available via the free Homematic IP smart phone app or the WebUI of the CCU3 central control unit.
Status and position information is transmitted to the Homematic IP smart phone app or WebUI and can be easily accessed at any time.

Device overview (see figure 1):

(A) System button (pairing button and LED)
(B) Screw holes
(C) Battery compartment cover
(D) Latch for the battery compartment cover
(E) Battery compartment

Position detection

The Tilt and Vibration Sensor can detect position changes in a freely con- figurable angle (i) of 10-45° from the horizontal. Therefore, to be able to detect position changes the device must be mounted horizontally. You can turn the device flexibly for installation. Make sure that the inserted batteries must always be aligned horizontally.



General system information

This device is part of the Homematic IP smart home system and works with the Homematic IP protocol. All devices of the system can be configured comfortably and individually with the user interface of the Central Control Unit CCU3 or flexibly via the Homematic IP smartphone app in connection with the Homematic IP cloud. All available functions provided by the system in combination with other components are described in the Homematic IP Wired Installation Guide. All current technical documents and updates are provided at **www.homematic-ip.com**.

Start-up

Do not install the cover until assembly and installation are complete.

6.1 Pairing

Please read this entire section before starting the pairing procedure.

First set up your Homematic IP Access Point via the Homematic IP app to enable operation of other Homematic IP devices within your system. For further information, please refer to the operating manual of the access point.

To integrate the device into your system and enable it to communicate with other Homematic IP devices, you must first add the device to your Homematic IP access point.

For pairing, proceed as follows:

- Open the Homematic IP app on your smart phone.
- Select the menu item “Add device”.
- Press the latch on the battery compartment cover (D) to open the battery compartment (E) (see figure 2).
- Remove the insulation strip from the battery compartment.
- The pairing mode is active for 3 minutes.

You can manually start the pairing mode for another 3 minutes by briefly pressing the system button (A) (see figure 3).

- Your device will automatically appear in the Homematic IP app.
- To confirm, enter the last four digits of the device number (SG- TIN) in your app, or scan the QR code. The device number can be found on the sticker supplied or attached to the device.
- Wait until pairing is completed.
- If pairing was successful, the LED (A) lights up green. The device is now ready for use.
- If the LED lights up red, please try again.
- Please select, in which application (e.g. climate control and/or security) you would like to use the device.
- In the app, give the device a name and allocate it to a room.
- Do not insert the battery compartment cover (C) yet.

6.2 Installation

The device must be mounted horizontally so that it can detected position changes.
You can attach the device to the desired position with either

- the supplied double-sided adhesive strips or
- the supplied screws**.**

6.2.1 Adhesive strip mounting

Make sure that the mounting surface is smooth, solid, non-disturbed, free of dust, grease and solvents and not too cold to ensure long-term adherence.
To mount the device with adhesive strips, please proceed as follows:

- Insert the battery compartment cover (C) until it fully latches into place.
- Attach the double-sided adhesive strips to the back of the battery compartment cover (C) (see figure 4).
- Press the back of the device onto the desired position.

6.2.2 Screw mounting

When selecting the installation location, check for electrical wires and power supply cables.
To mount the device using screws, please proceed as follows:

- Use a pen to mark the positions of the two bore holes with a distance of 40 mm on the wall.
- Position the battery compartment cover on the desired mounting position.

The screw holes (B) in the battery compartment cover do not have to be pre-drilled. You can simply screw the screws in through the plastic.

If you have wooden walls, you can pre-drill the holes with a 1.5 mm drill bit to make the screws easier to insert.

- Fasten the battery compartment cover by screwing the screws (see figure 5).

- Place the device on the mounted battery compartment cover until it fully latches into place.

Changing the batteries

If an empty battery is displayed via the app or the device (see „8.4 Error codes and flashing sequences“ on page 30), replace the used batteries by two new LR03/micro/AAA batteries.
You must observe the correct battery polarity.
To replace the device batteries, please proceed as follows:

- In the mounted condition, the device can be separated easily from the battery compartment cover (C) by pressing the latch (D) up(see figure 2).
- Remove the used batteries.
- Insert two new 1.5 V LR03/micro/AAA batteries into the battery compartment (E), making sure that you insert them the right way round (see figure 6).
- Please pay attention to the flashing signals of the device LED while inserting the batteries (see „8.4 Error codes and flashing sequences“ on page 30).
- Replace the device on the mounted battery compartment cover until it fully latches into place.

Once the batteries have been inserted, the device will perform a self-test for approx. 2 seconds. Afterwards, initialisation is carried out. The LED test display will indicate that initialisation is complete by lighting up or- ange and green.

Caution! There is a risk of explosion if the battery is not replaced correctly. Replace only with the same or equivalent type. Never recharge non-rechargeable batteries.
Do not throw the batteries into a fire. Do not expose batteries to excessive heat. Do not short-circuit batteries. There is a risk of explosion

Used batteries should not be disposed of with regular domestic waste! Instead, take them to your local battery disposal point.

Troubleshooting

8.1 Weak batteries
Provided that the voltage value permits it, the device will remain ready for operation even if the battery voltage is low. Depending on the particular load, it may be possible to send transmissions again repeatedly once the batteries have been allowed a brief recovery period.
If the voltage drops too far during transmission, this will be displayed on the device or via the Homematic IP app (see „8.4 Error codes and flashing sequences“ on page 30). In this case, replace the empty batteries by two new batteries (see „7 Changing the batteries“ on page 28).
8.2 Command not confirmed
If at least one receiver does not confirm a command, the device LED (A) lights up red at the end of the failed transmission process. The failed transmission may be caused by radio interference (see „11 General information about radio operation“ on page 32). This may be caused by the following:

- Receiver cannot be reached.
- Receiver is unable to execute the command (load failure, mechanical blockade, etc.).
- Receiver is faulty.

8.3 Duty cycle
The duty cycle is a legally regulated limit of the transmission time of devices in the 868 MHz range. The aim of this regulation is to safeguard the operation of all devices working in the 868 MHz range.

In the 868 MHz frequency range we use, the maximum transmission time of any device is 1% of an hour (i.e. 36 seconds in an hour). Devices must cease transmission when they reach the 1% limit until this time restriction ends. Homematic IP devices are designed and produced with 100% conformity to this regulation.
During normal operation, the duty cycle is not usually reached. However, repeated and radio-intensive pairing processes mean that it may be reached in isolated instances during start-up or initial installation of a system.
If the duty cycle is exceeded, this is indicated by one long red flashing of the device LED (A), and may manifest itself in the device temporarily working incorrectly.
The device starts working correctly again after a short period (max. 1 hour).

8.4 Error codes and flashing sequences

Flashing code	Meaning	Solution
Short orange flashes	Radio transmission/send attempt/data t ransmis- sion	Wait until the transmission is complet ed.
lx long green lighting	Transmission confirmed	You can continue operation.
lx long red flash	Transmission failed or duty cycle limit r eached	Please try again (see sec. .8.2 Comm and not confirmed' on page 29 or .8.3 Duty cycle' on page 30).
Brief orange flashing (every 10 s)	Pairing mode active	Enter the last four numbers of the device's serial number to confirm (see .6.1 Pairing" on page 26).
Brief steady or- ange light (af ter green or red con- firmatio n)	Batteries empty	Replace the batteries of the device (s ee .7 Changing the batteries" on page 28).
Alternating long and short or ange flashing	Device software updating (OTAU)	Wait until the update is completed.
6x long red flash- es	Device defective	Please see your app for error messag e or contact your retailer.
lx orange, lx green lighting (a fter inserting batteries)	Test display	You can continue once the test displa y has stopped.

Restore factory settings

The device's factory settings can be restored. If you do this, you will lose all your settings.
To restore the factory settings of the device, please proceed as follows:

- In the mounted condition, the device can be separated easily from the mounted battery compartment cover (C) by pressing the latch (D) up(see figure 2).
- Remove a battery (see figure 7),
- Insert the fresh battery making sure that it is right way around while pressing the system button (A) at the same time. Press and hold down the system button until the LED (A) starts to flash quickly orange (see figure 8).
- Release the system button briefly and then press and hold the system button again until the orange flashing changes to a green light (see figure 9).
- Release the system button again to conclude the procedure.

The device will perform a restart.

Maintenance and cleaning

The device does not require you to carry out any maintenance other than replacing the battery when necessary. Enlist the help of an expert to carry out any repairs.
Clean the device using a soft, clean, dry and lint-free cloth. Do not use any detergents containing solvents, as they could corrode the plastic housing and label.

General information about radio operation

Radio transmission is performed on a non-exclusive transmission path, which means that there is a possibility of interference occurring. Interference can also be caused by switching operations, electrical motors or defective electrical devices.
The transmission range within buildings can differ significantly from that available in open space. Besides the transmitting power and the reception characteristics of the receiver, environmental factors such as humidity in the vicinity have an important role to play, as do onsite structural/screening conditions.
Hereby, eQ-3 AG, Maiburger Str. 29, 26789 Leer/Germany declares that the radio equipment type Homematic IP HmIP-WUA is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: **www.homematic-ip.com**

Technical specifications

Device short description:	HmIP-STV
Supply voltage:	2x 1.5 V LR03/micro/AAA
Current consumption:	max. 30 mA
Battery life:	2 years (typical)
Protection rating:	IP30
Ambient temperature:	-20 to +55 °C
Dimensions (W x H x D):	25 x 85 x 20 mm
Weight:	50 g (including batteries)
Radio frequency band:	868.0-868.6 MHz 869.4-869.65 MHz
Max. radio transmission power:	10 dBm
Receiver category:	SRD category 2
Typical range in open space:	250 m
Duty cycle:	< 1 % per h/< 10 % per h
Configurable sensitivity thresholds for vibration:	25 mg, 50 mg, 100 mg, 300 mg (basic setting), 1000 mg, 3000 mg
Configurable angle of the position change (from the horizontal):	10-45° (default setting: 20°)

Subject to modifications.
Instructions for disposal

Do not dispose of the device with normal domestic waste! Electron- ic equipment must be disposed of at

local collection points for waste electronic equipment in compliance with the Waste Electrical and Electronic Equipment Directive.

Information about conformity

CE The CE mark is a free trademark that is intended exclusively for the authorities and does not imply any assurance of properties.

For technical support, please contact your retailer.

Free download of the Homematic IP app!

Download on the App Store	ANDROID APP ON Google
https://itunes.apple.com/de/app/homematic-ip/id1012842369?mt=8	https://play.google.com/store/apps/details=de

homematic IP

Manufacturer's authorised representative:

eQ-3

eQ-3 AG
Maiburger Straße 29
26789 Leer / GERMANY
www.eQ-3.de

Documents / Resources

	homematic IP HmIP-STV Tilt and Vibration Sensor [pdf] Instruction Manual HmIP-STV, HmIP-STV Tilt and Vibration Sensor, Tilt and Vibration Sensor, Vibration Sensor, Sensor

References

- Startseite - eQ-3
- Home page | Homematic IP
- User Manual