homecontrols

Installer and user reference guide

Daikin Home Controls Room Sensor

EKRSENDI1BA

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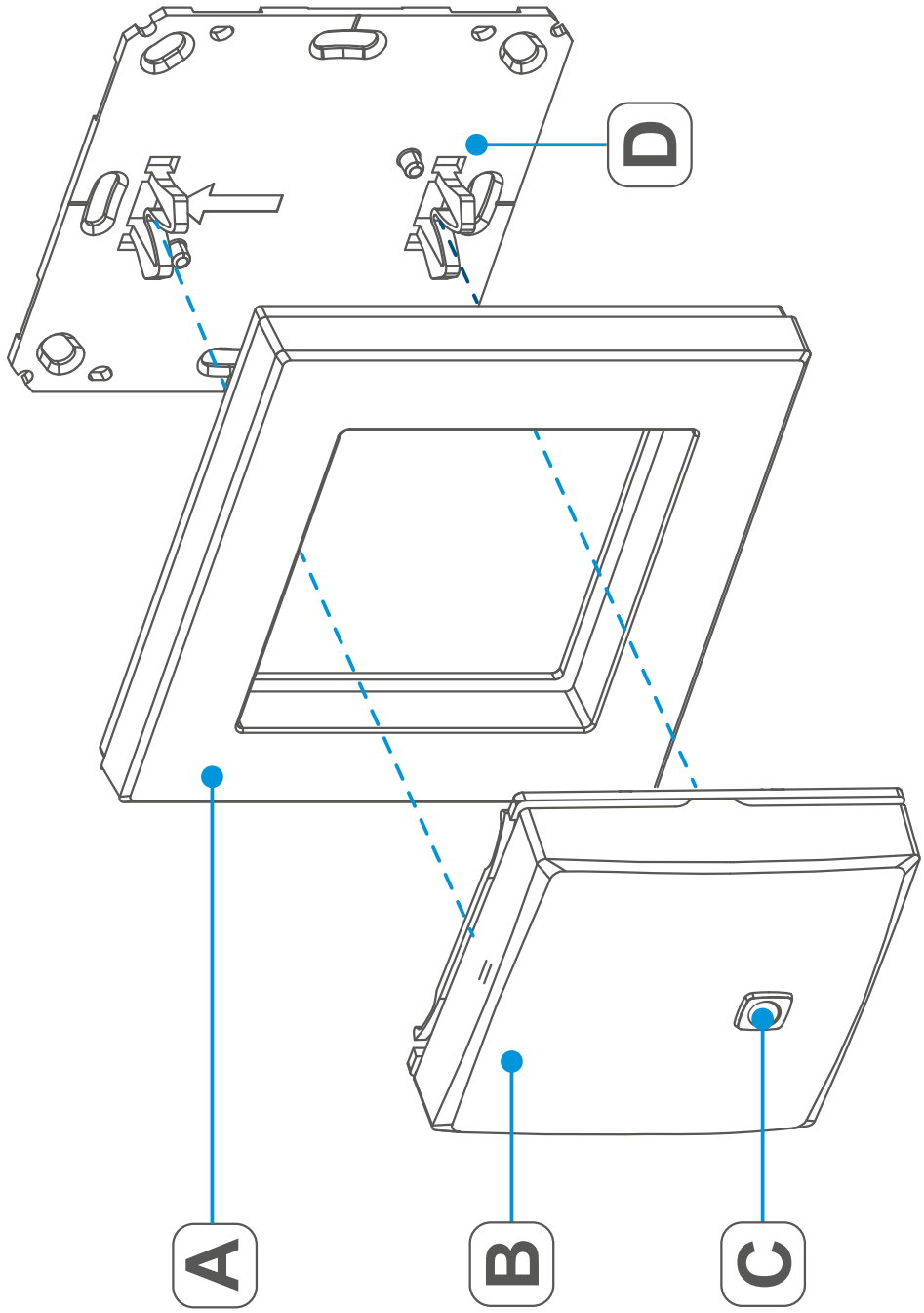

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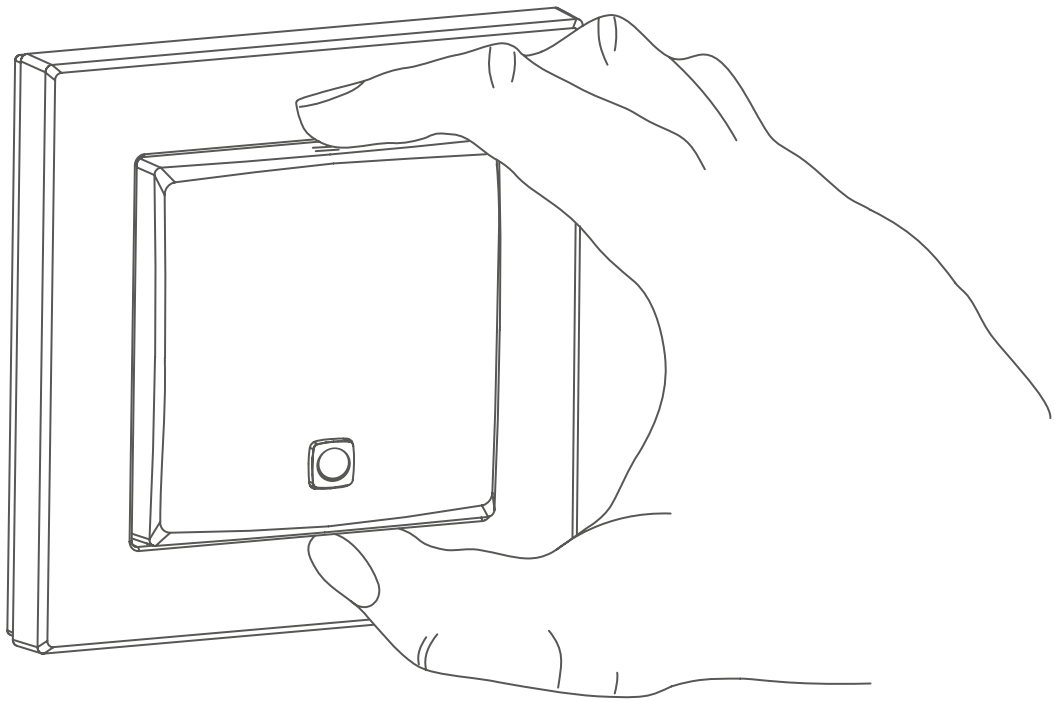

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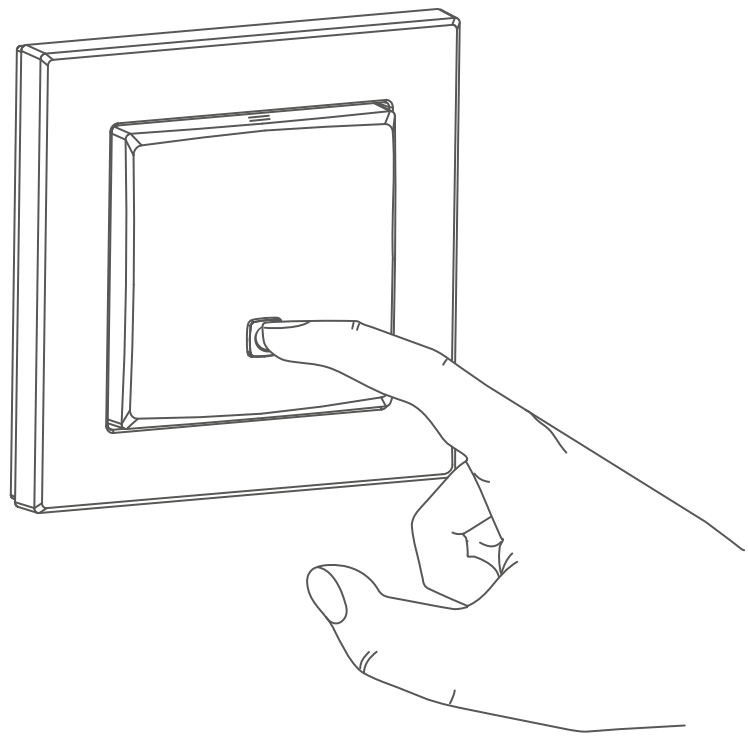

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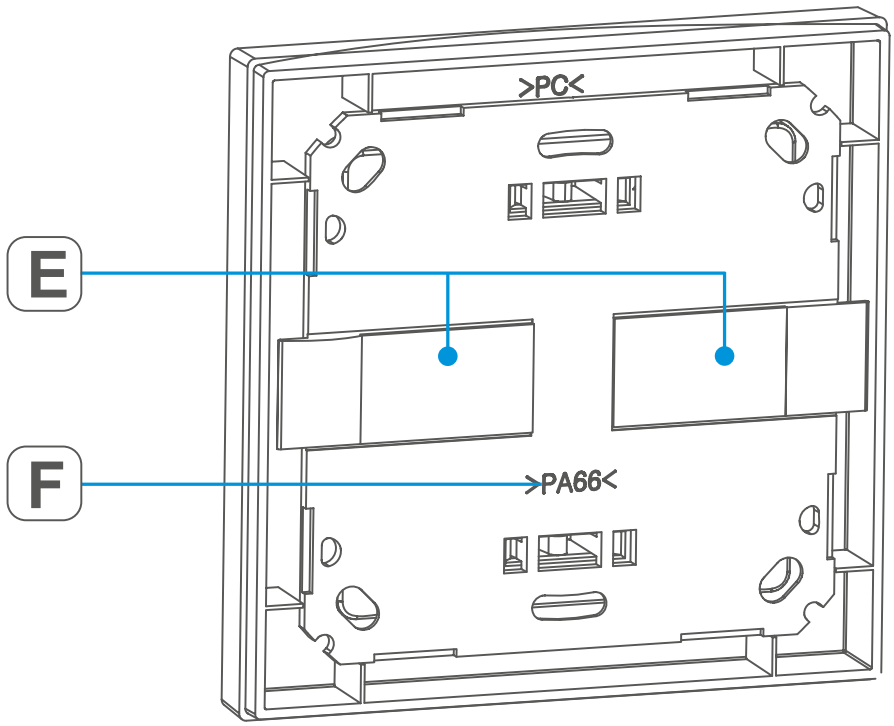

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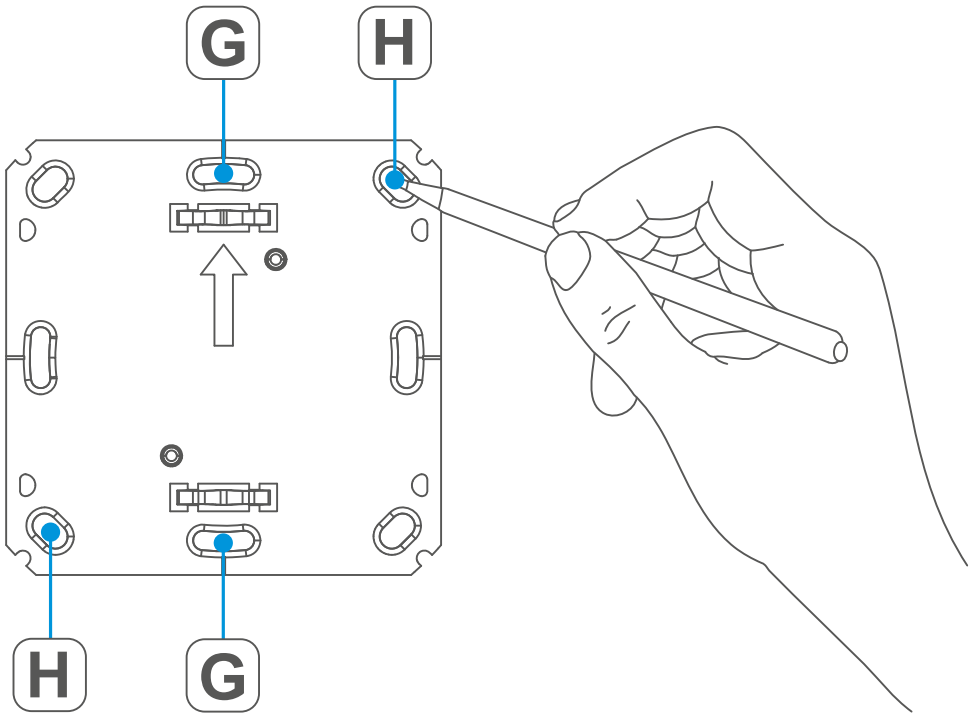

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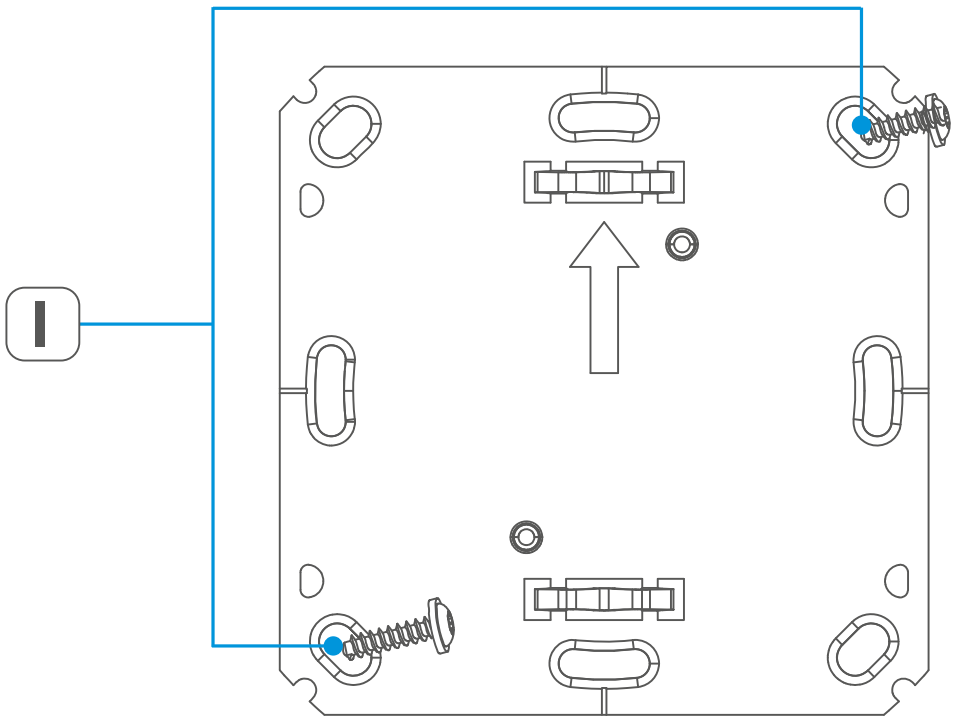

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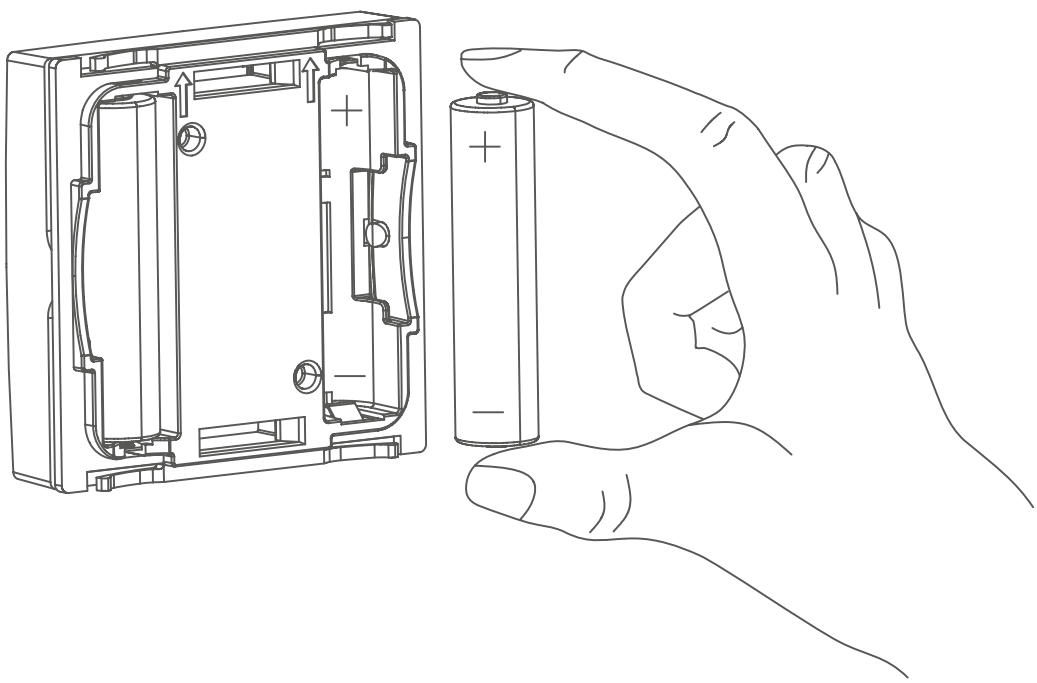

Package contents

Quantity	Description
1	Daikin Home Controls Room Sensor
1	Clip-on frame
1	Mounting plate
2	Double-sided adhesive strips
2	Screws 3.0 x 30 mm
2	Plugs 5 mm
2	1.5 V LR03/micro/AAA batteries
1	Installation and operation manual

Printed in Hong Kong.
Changes may be made without prior notice as a result of technical advances.

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1 Information about this manual

Read this manual carefully before beginning operation with your Daikin Home Controls (DHC) accessories. Keep the manual so you can refer to it at a later date if you need to. If you hand over the accessory to other persons for use, hand over this manual as well.

Symbols used:

Attention!
This indicates a hazard.

Please note:
This section contains important additional information.

2 Hazard information

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

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

The accessory may only be operated in a dry and dust-free environment and must be protected from the effects of moisture, vibrations, solar or other types of heat radiation, cold and mechanical loads.

The accessory 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.

We do not assume any liability for damage to property or personal injury caused by improper use or the failure to observe the hazard information. In such cases, any claim under warranty is extinguished! For consequential damages, we assume no liability!

The accessory may only be operated within residential buildings.

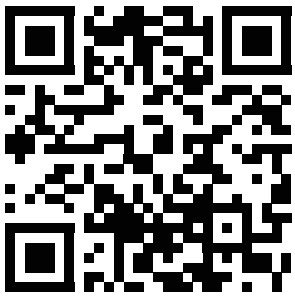
Using the accessory for any purpose other than that described in this manual does not fall within the scope of intended use and shall invalidate any warranty or liability.

Always keep a minimum distance of 50 cm between the DHC accessories.

3 Daikin Home Controls

This accessory is part of the DHC ecosystem and communicates with a dedicated wireless connection.
All accessories of the system can be configured comfortably and individually via the ONECTA app. The available functions provided by the DHC ecosystem in combination with other accessories are described in the DHC Application Guide.
All current technical documents and updates can be found on the product pages:

https://qr.daikin.eu/?N=EKRSENDI1BA



4 Function and accessory overview

The DHC Room Sensor measures the room temperature and humidity and transmits these values at intervals to the DHC Access Point as well as to the ONECTA app, enabling to regulate the room climate according to your needs. Take a look at the home screen of the app and you will be informed about the temperature and the current humidity of the corresponding room.

Mounting and removal are particularly easy using the clip-on frame supplied. It is also possible to integrate the accessory into existing switches of other manufacturers.

Accessory overview *(see figure 1)*:

(A) Clip-on frame
(B) Sensor (electronic unit)
(C) System button and LED
(D) Mounting plate

5 Start-up

5.1 Connecting to the DHC Access Point

Read this entire section before starting to connect other accessories.

First set up your DHC Access Point via the ONECTA app to enable operation of other DHC accessories within your ecosystem. For further information, see the manual of the DHC Access Point.

To integrate the DHC Room Sensor into your ecosystem and enable it to communicate with other DHC accessories, you must connect it to your DHC Access Point first. To do so, proceed as follows:

1. Open the ONECTA app.
2. Click on the plus symbol (+).
3. Select the menu item **Add Daikin Home Controls**.
4. Select **Add DHC Accessory**.
5. Remove the sensor **(B)** from the frame by grabbing the sides of the sensor and pulling it out (*see figure 2*).
6. Turn over the sensor.
7. Remove the insulation strip from the battery compartment.

» Connection mode remains activated for 3 minutes.

You can manually start the connection mode for another 3 minutes by pressing the system button **(C)** shortly (*see figure 3*).

8. Follow the instructions in the app.

5.2 Mounting

Read this entire section before starting to mount the accessory.

You can use the supplied clip-on frame **(A)** to mount the DHC Room Sensor or easily integrate it into an existing switch (see „5.2.2 Screw mounting“ on page 14).

You can fix the DHC Room Sensor to a wall with:

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

You can also mount the DHC Room Sensor on a flush-mounted box.

5.2.1 Adhesive strip mounting

To mount the DHC Room Sensor using the adhesive strips, proceed as follows:

1. Choose a site for installation.

Make sure that the mounting surface is smooth, solid, non-disturbed, free of dust, grease and solvents and not too cold to ensure long-time adherence.

2. Fix the adhesive strips **(E)** on the back side of the mounting plate **(D)** in the provided area. You should be able to read the letters on the back side **(F)** (*see figure 4*).
3. Remove the protective film from the adhesive strip.
4. Press the assembled DHC Room Sensor with the back side to the wall.

5.2.2 Screw mounting

To mount the DHC Room Sensor with screws, proceed as follows:

1. Choose a site for installation.

Make sure that no electricity or similar lines run in the wall at this location!

2. Position the mounting plate **(D)** on the desired site on the wall. Make sure that the arrow on the back side of the mounting plate is pointing upwards.
3. Use a pen to mark the positions of the screw holes **(H)** (diagonally opposite) according to the mounting plate on the wall (*see figure 5*).
4. Drill the marked holes.

If you are working with a stone wall, drill the marked 5 mm holes and insert the plugs supplied. If you are working with a wooden wall, you can pre-drill 1.5 mm holes to easier insert the screws.

5. Use the supplied screws and plugs **(I)** to fix the mounting plate to the wall (*see figure 6*).
6. Attach the clip-on frame **(A)** to the mounting plate.
7. Place the DHC Room Sensor **(B)** into the frame (*see figure 1*). Make sure that the clips on the mounting plate latch into the openings on the DHC Room Sensor.

5.2.3 Flush-mounted box mounting

You can mount the DHC Room Sensor on a flush-mounted box using the screw holes **(G)** (*see figure 5*).

If the accessory is mounted to a flush-mounted box, there may be no open conductor ends.

If changes or works have to be made on the house installation (e.g. extension, bypass of switch or socket inserts) or the low-voltage distribution for mounting or installing the accessory, the following safety instruction must be considered:

Only to be installed by persons with the relevant electro-technical knowledge and experience!*

Incorrect installation can put your own life at risk and the lives of other users of the electrical system. Incorrect installation also means that you are running the risk of serious damage to property, e.g. because of a fire. You may be personally liable in the event of injuries or damage to property. Contact an electrical installer!

*Specialist knowledge required for installation:

The following specialist knowledge is particularly important during installation:

- The “5 safety rules” to be used: Disconnect from mains; Safeguard from switching on again; Check that system is de-energised; Earth and short circuit; Cover or cordon off neighbouring live parts;
- Select suitable tools, measuring equipment and, if necessary, personal safety equipment;
- Evaluation of measuring results;
- Selection of electrical installation material for safeguarding shut-off conditions;
- IP protection types;
- Installation of electrical installation material;
- Type of supply network (TN system, IT system, TT system) and the resulting connecting conditions (classical zero balancing, protective earthing, re-

quired additional measures etc.).

6 Replacing batteries

If the flashing signal for empty batteries appears (see „7.3 Error codes and flashing sequences“ on page 20), replace the used batteries by two new LR03/micro/AAA batteries. You must observe the correct battery polarity.

To replace the batteries of the accessory, proceed as follows:

1. Once mounted, the electronic unit **(B)** can easily be pulled out of the clip-on frame **(A)** or removed from the mounting plate **(D)**. Grab the sides of the electronic unit and pull it out (*see figure 2*). You do not need to open the accessory.
2. Turn the electronic unit over to replace the batteries.
3. Insert two new 1.5 V LR03/micro/batteries. Make sure that you insert them the right way round (*see figure 7*).
4. Place the electronic unit back into the frame. Make sure that the clips on the mounting plate latch into the openings on the DHC Room Sensor.
5. Pay attention to the flashing signals of the LED while inserting the batteries (see „7.3 Error codes and flashing sequences“ on page 20).

» After inserting the batteries, the accessory will per-

form a self-test (approx. 2 seconds). Afterwards, initialisation is carried out. The LED will light up orange and green to indicate that initialisation is complete.

Attention! 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. Doing so will present a risk of explosion.

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

7 Troubleshooting

7.1 Weak battery

Provided that the voltage value permits it, the accessory 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, the corresponding flashing signal will appear on the accessory (see „7.3 Error codes and flashing sequences“ on page 20). In

this case, replace the empty batteries by two new batteries (see „6 Replacing batteries“ on page 17).

7.2 Duty cycle

The wireless DHC accessories operate in the following frequency bands:

- 868,000~868,600 MHz
- 869,400~869,650 MHz

In order to safeguard operation of all devices working in this range, it is legally required to limit the transmission time of devices. Limiting the transmission time minimizes the risk of interference.

The ‘duty cycle’ is the maximum transmission time. It is the ratio of the time that a device is actively transmitting in comparison to the measurement period (1 hour), and is expressed as a percentage of 1 hour.

If the total amount of allowed transmission time is reached, the DHC accessory will stop transmitting until the time limit is reached.

For example, when a device has a duty cycle limit of 1%, it is only allowed to transmit 36 seconds in 1 hour. After this, it will stop transmitting until the 1 hour limit is reached.

DHC accessories fully comply to this limitation and use 2 frequency bands with a duty cycle of respectively 1 % and 10%.

During normal operation of the DHC accessories, this limit is not usually reached. However it is possible that the limit is reached during start-up or during a fresh installation of a

system. In this case, the LED of the accessory lights up red. It may be non-responsive for a short period (max. 1 hour), until the time restriction for transmission has expired. After this period, it will operate normal again.

7.3 Error codes and flashing sequences

Flashing code	Meaning	Solution
Short orange flashing	Radio transmission/ attempting to transmit/data transmission	Wait until the transmission is completed.
1x long green lighting	Transmission confirmed	Continue operation.
1x long red lighting	Transmission/ operation failed or duty cycle limit is reached	Try again (see „7.2 Duty cycle“ on page 19).
Short orange lighting (after green or red confirmation)	Batteries empty	Replace the batteries (see „6 Replacing batteries“ on page 17).

Flashing code	Meaning	Solution
Short orange flashing (every 10 seconds)	Connection mode active	Follow the instructions in the app to add accessory (see „5.1 Connecting to the DHC Access Point“ on page 12).
6x long red flashing	Accessory defective	Contact your reseller.
1x orange and 1 x green lighting (after inserting batteries)	Test LED	After the test LED has stopped, you can continue.

8 Restore factory settings

The factory settings of the accessory can be restored. If you do this, you will lose all your settings.

To restore the factory settings of the accessory, proceed as follows:

1. Once mounted, the electronic unit **(B)** can easily be pulled out of the clip-on frame. Grab the sides of the electronic unit and pull it out (*see figure 2*).
2. Remove a battery.
3. Insert the battery again (*see figure 7*) and long press the system button **(C)** at the same time, until the LED quickly starts flashing orange (*see figure 3*).
4. Release the system button again.
5. Long press the system button again until the LED lights up green.
6. Release the system button to finish the procedure.

» The accessory will perform a restart.

9 Maintenance and cleaning

The accessory 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 accessory using a soft, lint-free cloth that is clean and dry. You may dampen the cloth a little with lukewarm water in order to remove more stubborn marks. Do not use any detergents containing solvents, as they could corrode the plastic housing and label.

10 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 range of transmission within buildings can differ greatly from that available in the open air. 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 on-site structural/screening conditions.

Hereby, Daikin Europe N.V. declares that the radio equipment type DHC EKRSENDI1BA is in compliance with the Directive 2014/53/EU. The original declaration of conformity is available from the EKRSENDI1BA product pages.

https://qr.daikin.eu/?N=EKRSENDI1BA

11 Technical specifications

Device name:	EKRSENDI1BA
Supply voltage:	2x 1.5 V LR03/micro/AAA
Current consumption:	20 mA max.
Battery life (typ.):	2 years
Degree of protection:	IP20
Ambient temperature:	5 to 35 °C
Dimensions (W x H x D):	
Without frame:	55 x 55 x 19 mm
Including frame:	86 x 86 x 20 mm
Weight:	85 g (including batteries)
Radio frequency band:	
F1	868.0–868.6 MHz
F2	869.4–869.65 MHz
Maximum radiated power:	10 dBm
Receiver category:	SRD category 2
Typ. open area RF range:	130 m
Duty cycle:	
F1	< 1 % per h
F2	< 10 % per h

Subject to technical changes.

Instructions for disposal

Do not dispose of the device with regular domestic waste! Electronic 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

The CE sign is a free trading sign addressed exclusively to the authorities and does not include any warranty of any properties.

For technical support, contact your specialist dealer.

Free download of the ONECTA app!

Download on the App Store

GET IT ON Google Play

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