

# Energy-Saving Controller Comet Zero ZigBee DHA-257

## OPERATING INSTRUCTIONS



Supports hydraulic balancing  
without the need for extensive  
valve replacement



# LEGAL NOTICE

## Operating Instructions Energy-Saving Controller **Comet Zero** ZigBee DHA-257

### **Manufacturer**

EUROtronic Technology GmbH  
Südweg 1  
36396 Steinau-Ulmbach  
Germany  
[www.eurotronic.org](http://www.eurotronic.org)

Status 2024.10

Version 1.0 / EN

### **Publisher**

Ingenieurbüro FORMAT GmbH  
Ebertstraße 80  
26382 Wilhelmshaven  
Germany  
[www.format-docu.de](http://www.format-docu.de)

### **Legal Information**

All brand names and trademarks mentioned in this document and protected by third-party rights, are subject without restriction to the provisions of the applicable trademark law and the ownership rights of the respective registered owners. Comply with all local and regional laws and regulations as well as the safety regulations referred to in this document.

### **Copyright Notice**

The contents of this document are protected by copyright.

The disclosure, transfer and any other distribution of the contents of this document to third parties, the making of copies, transcripts and other reproductions as well as utilisation and any other use are prohibited - even in part - without the prior, express and written consent of the author.

© 2024 All rights reserved.

# CONTENTS



This operating instruction manual provides assistance for starting up and using the Comet Zero ZigBee DHA-257. Read these operating instructions carefully before using the Comet Zero ZigBee DHA-257. Keep this operating manual in a safe place and hand over all documents when passing the equipment on to third parties.

1	Safety Information.....	5
1.1	Depiction of Warnings.....	5
1.2	Warnings.....	6
2	Scope of Delivery.....	9
3	Overview.....	10
3.1	Proper use.....	10
4	Controls and Display Elements.....	11
4.1	Operating Elements.....	12
4.2	Display Elements.....	13
5	Putting into Operation.....	14
5.1	Inserting Batteries.....	14
5.2	Connecting with the ZigBee Network.....	15
5.3	Installing on Radiator.....	16
5.4	Adaptation.....	18
6	Operation & Functions.....	19
6.1	Operation.....	19
6.2	Additional Functions.....	20
6.3	Disconnecting the ZigBee Connection.....	21
6.4	Resetting the Default Factory Settings.....	22
7	Advanced ZigBee Operation.....	23
7.1	Basic Settings.....	23
7.2	Power Configuration.....	24
7.3	Thermostat Configuration.....	24
7.4	Attribute of the SW Build ID.....	25
7.5	PI Heating Requirement Attribute.....	25
7.6	Errors.....	25
7.7	Set Value of Current Temperature.....	25
7.8	Attribute Report.....	25

8	Disassembly .....	26
9	Troubleshooting .....	27
10	Cleaning and Storage .....	28
11	Appendix.....	29
11.1	Technical Data .....	29
11.2	Adapter Overview .....	30
11.3	Support and Contact .....	32
11.4	Disposal.....	32
11.5	Simplified Declaration of Conformity .....	33
11.6	Warranty Notice .....	33
11.7	Manufacturer.....	33

# 1 SAFETY INFORMATION

In addition to the safety information in these operating instructions, all other available sources must also be observed.

The areas of use defined in the written explanations of the **intended use** must be observed.

## 1.1 DEPICTION OF WARNINGS

The warnings used in these operating instructions have the following meaning:



### WARNING!

There is a risk of serious injury or even fatal injury if the warning sign containing this signal word is ignored.

→ Probability of occurrence: possible



### CAUTION!:

Moderate to minor personal injury may occur if warnings with this signal word are disregarded.

→ Probability of occurrence: possible



### IMPORTANT!

Material damage can occur if warnings with this signal word are disregarded.

→ Probability of occurrence: possible



### INFORMATION

Contains additional information.

## 1.2 WARNINGS

When operating the Comet Zero ZigBee DHA-257 and its components, risks may arise that can be avoided by observing the following warnings.



### WARNING!

#### Risk of fatal injury and accidents to infants and children!

There is a risk of suffocation from the device and packaging material.

- Never leave children unsupervised with the device or the packaging material. Children underestimate the risks involved. Always keep children away from the device and packaging material.
- Keep batteries out of reach of children. Should a battery be swallowed, seek medical attention immediately.



### CAUTION!:

#### Risk of injury through exploding or leaking batteries!

Improper handling of batteries can lead to an explosion.

- Only use batteries of the type specified.
- Never attempt to charge non-rechargeable batteries.
- Switch the device off and remove the batteries if the device will not be used for a longer period.
- Do not heat batteries and do not throw them into open flames or water.
- Do not place batteries in direct sunlight.
- Protect batteries from excessive heat.
- Do not short-circuit batteries.
- Never dismantle batteries.
- Do not use new and used batteries together.
- When inserting the batteries, observe the correct polarity (+/-).
- Before inserting the batteries, clean the batteries and the contacts in the device.
- Avoid contact of battery acid with skin, eyes and mucous membranes.
- In case of contact with battery acid, immediately rinse the affected areas with clean water and consult a doctor.
- Remove dead batteries from the device.
- Remove batteries from the device before disposing of the device.
- Improper handling of batteries can have adverse effects on your health and the environment. Batteries can contain toxic and environmentally harmful heavy metals (Cd = cadmium, Hg = mercury, Pb = lead). Therefore, separate disposal and recycling of used batteries is essential for environmental and health reasons.



**CAUTION!:**

**Burns caused by hot radiator valve!**

Touching can cause burns to the hand.

- Allow the radiator to cool down before installing, disassembling or clearing faults on the device!
- Wear protective gloves



**CAUTION!:**

**Risk of injury due to malfunction!**

Malfunctions can lead to injuries.

- Never carry out repairs to the device yourself.
- Do not open the device.
- Do not short-circuit the connection terminals of the device.
- Do not carry out any modifications or conversions on your device.
- Do not use the device if it is damaged.
- In the event of an error, contact Customer Service.



**IMPORTANT!**

**Material damage and malfunction possible!**

The device can be used by children from the age of 8 and persons with restricted physical, sensory or mental capabilities or a lack of experience and knowledge when they are supervised or if they have been instructed on safe use of the device and understand the potential dangers involved.

- Children must not be allowed to play with the device.
- Cleaning and user maintenance must not be carried out by children without supervision.



### IMPORTANT!

#### **Material damage and malfunction possible!**

Environmental influences can affect the functions of the device.

- Keep the device away from direct sunlight.
- Only use the device in a dry, dust-free environment.
- Use only original accessories.
- Do not operate the device if it is damaged.



### IMPORTANT!

#### **Material damage and malfunction possible!**

Damaged components and/or malfunctions prevent the device from working properly.

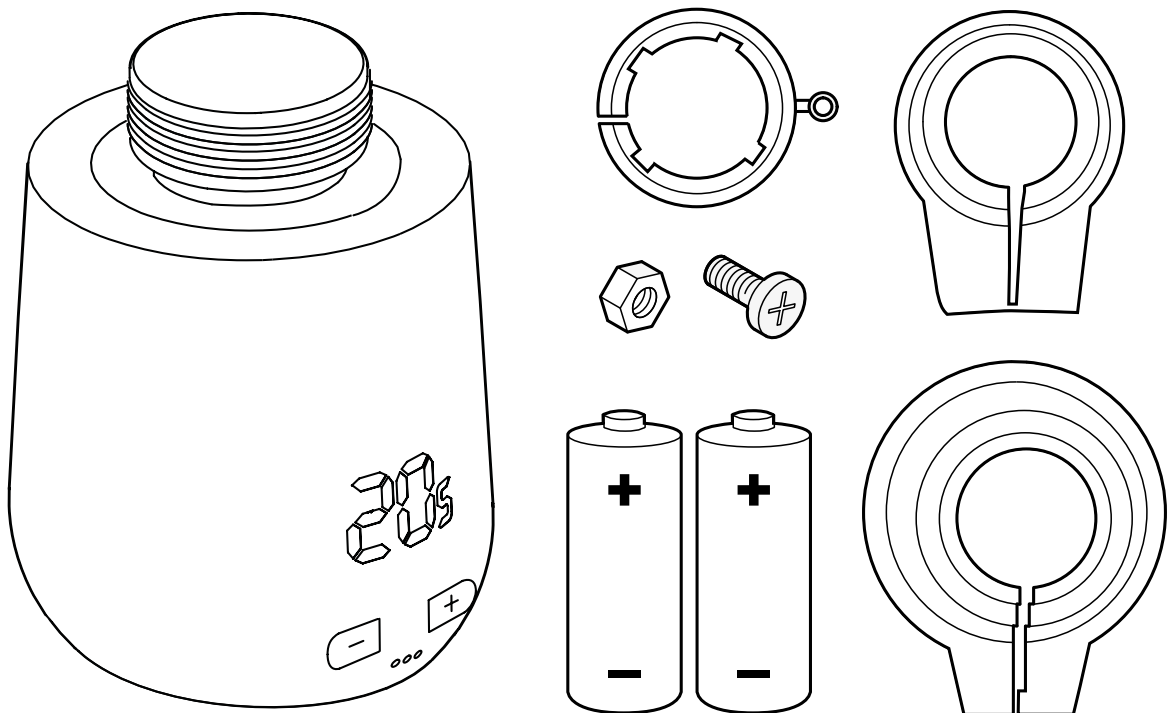
- If material damage and/or malfunctions occur, contact the Customer Service of Eurotronic Technology GmbH.



## 2 SCOPE OF DELIVERY

Check the items supplied for completeness as well as for visual and technical defects before putting the Comet Zero ZigBee DHA-257 into operation.

- 1× Comet Zero ZigBee DHA-257 energy-saving controller
- 1× Quick Guide
- 1× adapter sets (Danfoss RA / RAV / RAVL)
- 1× screw and 1× nut for adapter
- 2× AA/LR6 batteries



### IMPORTANT!

#### Material damage and malfunction possible!

Damaged components and/or malfunctions prevent the device from working properly.

- ➔ If material damage and/or malfunctions occur, contact the Customer Service of Eurotronic Technology GmbH.

\*When using the RAV adapter, the RAV pin is required to extend the valve plunger.

# 3 OVERVIEW

Thank you for choosing a product from EUROtronic Technology GmbH. Your Comet Zero ZigBee DHA-257 is an energy-saving thermostat for radiators equipped with the ZigBee wireless standard providing modern, simple operation. It automatically regulates the room temperature according to your specifications and can be configured either directly on the controller or conveniently via a smartphone. The Comet Zero ZigBee DHA-257 helps you to effectively reduce your heating costs. Development and production are 100% "Made in Germany", which guarantees premium quality and technology. These operating instructions will help you to get the Comet Zero ZigBee DHA-257 up and running quickly and easily.



**INFORMATION**

The drawings in these instructions are for the purpose of illustration and are not necessarily to scale. Product designations and pictograms on screenshots may differ from the actual product. EUROtronic Technology GmbH reserves the right to change the design or dimensions without prior notice.

## 3.1 PROPER USE

The Comet Zero ZigBee DHA-257 is used to regulate a heater radiator valve indoors. It is forbidden to carry out any unauthorised modifications, conversions and repairs. Do not use rechargeable batteries

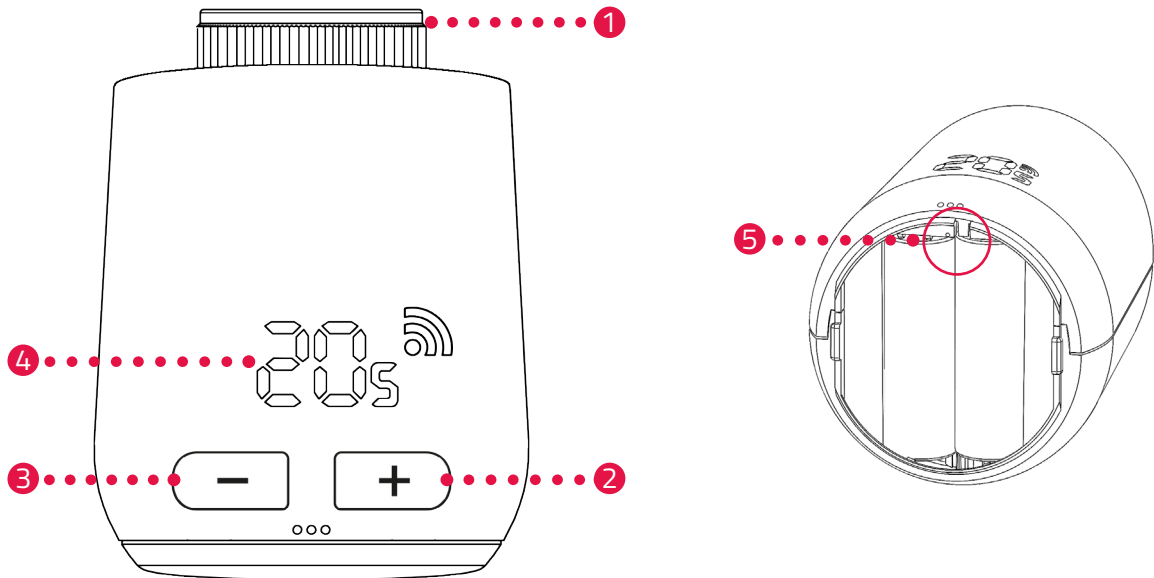
Any use other than that described here is considered unintended use and will result in the loss of rights related to the terms of guarantee and exemption of liability. The Comet Zero ZigBee DHA-257 is intended for private use only.



- Reduce heating costs**  
with energy-efficient control.
- Connection via ZigBee**  
Control and configuration using the ZigBee controller and ZigBee app.
- Easy assembly**  
without intervention in the heating water circuit.

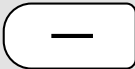
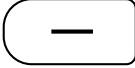
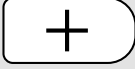
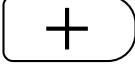


## 4 CONTROLS AND DISPLAY ELEMENTS

The following section describes the operating and display elements of your Comet Zero ZigBee DHA-257.


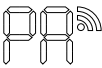
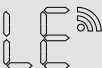
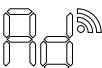











- ① Union nut
- ② + button (increase temperature)
- ③ - button (decrease temperature)
- ④ Display
- ⑤ Reset button

## 4.1 OPERATING ELEMENTS

Button	Action	Function
	Press briefly	Lower the temperature by 0.5 °C.
	Press and keep pressed	Lower the temperature by 0.5 °C, then lower the temperature by 0.5 °C every 0.5 sec. until the lowest temperature is reached or the button is released.
	Press briefly	Raise the temperature by 0.5 °C.
	Press and keep pressed	Raise the temperature by 0.5 °C, then raise the temperature by 0.5 °C every 0.5 sec. until the highest temperature is reached or the button is released.
Reset button	Press and keep pressed for 5 sec.	The Comet Zero ZigBee DHA-257 reacts to the interruption of commands from the ZigBee controller (exclusion).
Reset button	Press and keep pressed for 10 sec.	The Comet Zero ZigBee DHA-257 is reset to its default factory settings.
	Press both buttons for 3 sec.	Activate/Deactivate the key lock function.
	<b>Ad</b> appears in the display, press both buttons for 3 sec.	Start adaptation.

## 4.2 DISPLAY ELEMENTS

Symbol	Designation	Function
	Radio symbol	Indicates a communication connection or a pairing process. If the symbol is not displayed, there is no radio communication.
	Pairing mode (inclusion)	Indicates pairing mode is active in order to connect the device with a ZigBee controller.
	Disconnecting mode (exclusion)	Indicates disconnecting mode is active in order to disconnect the device from a ZigBee controller.
	Adaptation	Indicates that adaptation to the radiator valve can be started.
	Animation	Indicates that adaptation is active, the process can take a little while.
	Animation	Indicates that the key lock function has been activated or deactivated.
	Low battery charge	Indicates that the battery charge status is under 25%.
	Error message	Indicates that disconnection of the device from the ZigBee controller (exclusion) has failed.
	Error message	Indicates that pairing of the device to the ZigBee controller (inclusion) has failed.
	Error message	Indicates that the error <b>E1</b> has occurred, see  in Section <b>9 Troubleshooting on Page 27</b> .
	Error message	Indicates that the error <b>E3</b> has occurred, see  in Section <b>9 Troubleshooting on Page 27</b> .

## 5 PUTTING INTO OPERATION

You must connect the Comet Zero ZigBee DHA-257 to a ZigBee network prior installation. The connection process is referred to as "inclusion". The disconnection process is referred to as "exclusion". Both processes must be initiated from a primary ZigBee controller (gateway). To do this, the ZigBee controller is set to pairing or disconnection mode. Further information is available in the operating manual supplied with the ZigBee controller.

### Behaviour in the ZigBee Network

The Comet Zero ZigBee DHA-257 can be added to a ZigBee network in order to communicate with other ZigBee certified devices and/or applications from different manufacturers.

All the network nodes which are not battery powered, regardless of their manufacturer, function as repeaters and improve the reliability of the wireless ZigBee network.

### Network Security

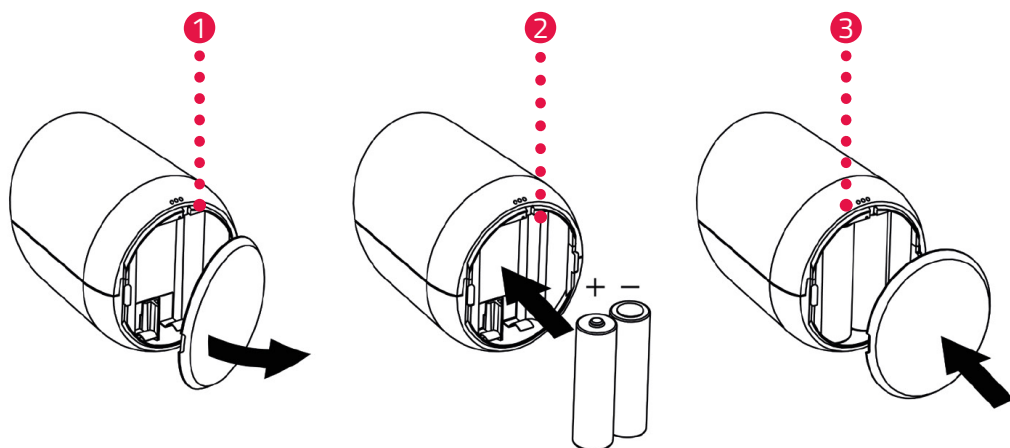
The Comet Zero ZigBee DHA-257 can communicate encrypted with other ZigBee devices when they also support encrypted communication. If this is not the case, the Comet Zero ZigBee DHA-257 communicates unencrypted.



#### INFORMATION

In order to use the functions provided by the Comet ZigBee, a security-capable ZigBee controller (gateway) is required.

### 5.1 INSERTING BATTERIES



1. Open the battery compartment cover.
2. Insert the batteries provided as shown.  
**Pay attention to the correct polarity and do not use rechargeable batteries!**
3. Close the battery compartment cover.
  - The battery compartment cover audibly clicks into place.
  - You have successfully inserted the batteries.
  - PA appears in the display.

## 5.2 CONNECTING WITH THE ZIGBEE NETWORK

In order to be able to use all the functions provided, you must connect the Comet Zero ZigBee DHA-257 to a ZigBee controller (gateway).

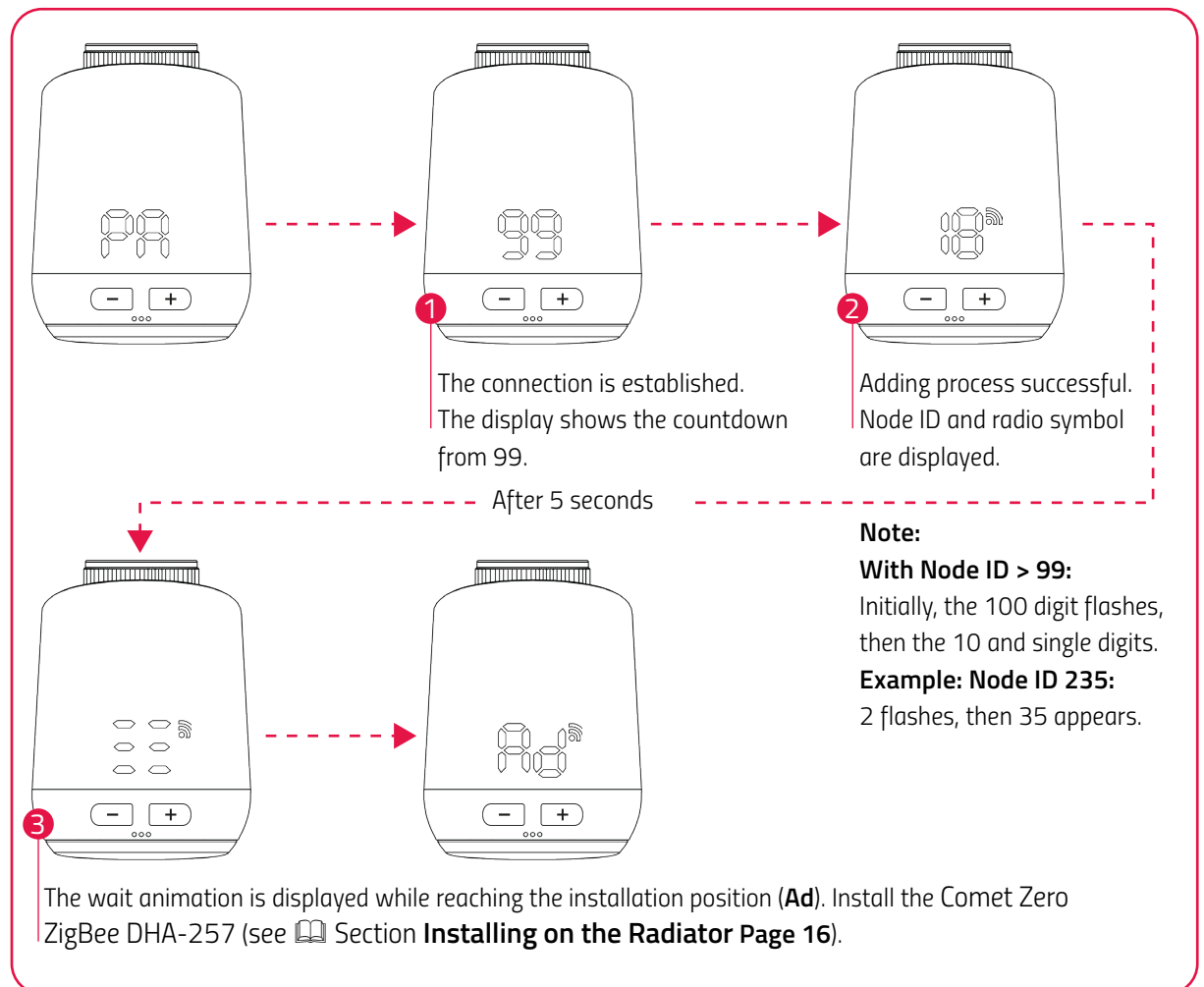
Ensure that the following conditions are fulfilled:

- The batteries have been inserted in the Comet Zero ZigBee DHA-257.
- **PA** appears in the display of the Comet Zero ZigBee DHA-257.
- The ZigBee controller is in pairing mode.



### INFORMATION

Further information on pairing mode and the connection process is provided in the operating manual supplied with the ZigBee controller.



### INFORMATION

If any errors occur (e.g. C1) press the **- button** or **+ button** to confirm the error message and repeat the process.

## 5.3 INSTALLING ON A RADIATOR

When **Ad** appears in the display, install the Comet Zero ZigBee DHA-257 on the radiator required.

The Comet Zero ZigBee DHA-257 can be installed on all common valve bodies (see adapter list at [www.eurotronic.org/service/faq](http://www.eurotronic.org/service/faq)).

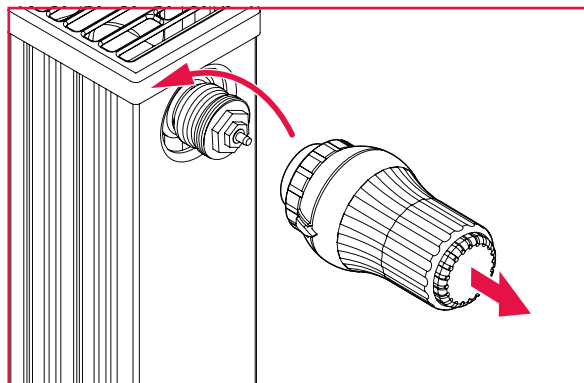


### CAUTION!:

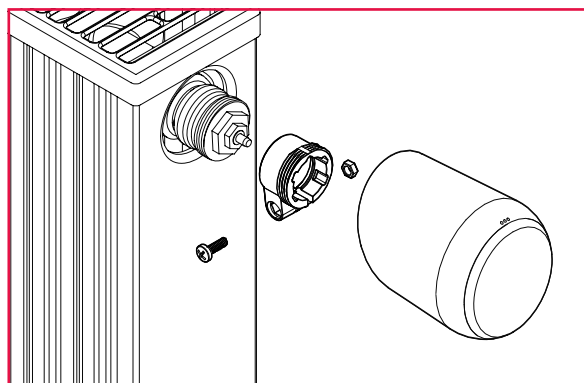
#### Burns caused by hot radiator valve!

Touching can cause burns to the hand.

- ➔ Do not touch hot radiator valves!
- ➔ Allow the radiator to cool down before installing, disassembling or clearing faults on the device!

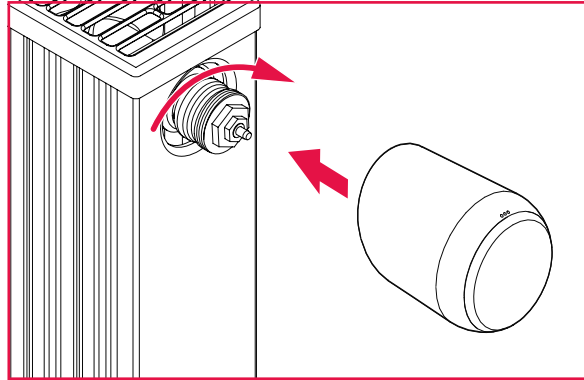



1. Open the current thermostatic head completely.
2. Loosen the fastening and pull the thermostatic head off the radiator.



3. Optional: Select a suitable adapter from the scope of delivery. For additional information on the adapters, please see the  Section **11.2 Adapter overview on Page 30**.





4. Fit the Comet Zero ZigBee DHA-257 on the radiator and turn the union nut clockwise.
  - ➔ You have installed your Comet Zero ZigBee DHA-257 successfully.
  - ➔ Following installation, start the adaptation, see  Section **5.4 Adaptation on Page 18**.



#### INFORMATION

When installing/removing your Comet Zero ZigBee DHA-257 at a later date, please note that it must be in the adaptation mode. To do this, open the battery compartment cover and remove the batteries. Replace the batteries after approx. 10 seconds and close the battery compartment cover. The Comet Zero ZigBee DHA-257 restarts and is in adaptation mode. **Ad** appears in the display.

## 5.4 ADAPTATION

After successful installation, the Comet Zero ZigBee DHA-257 can begin with the adaptation. The condition is that **Ad** appears in the display of your Comet Zero ZigBee DHA-257.

1. To start the adaptation, simultaneously press and hold the **+ button** and **- button** on the Comet Zero ZigBee DHA-257 for approx. 3 seconds.
  - ➔ An animation appears in the display during the course of the process.
  - ➔ During the adaptation process, the Comet Zero ZigBee DHA-257 adapts to the stroke of the lower valve section. For this purpose, the valve is opened and closed several times to detect the respective end points. The process may take a moment. After successful adaptation, your Comet Zero ZigBee DHA-257 switches to normal operation.
  - ➔ The set temperature (21 °C) is displayed.

If a problem occurs with the Comet Zero ZigBee DHA-257, a new adaptation is necessary.



### INFORMATION

If any errors occur, press the **- button** or **+ button** to confirm the error message and repeat the process.

Complete the following working steps:

1. Open the battery compartment cover.
2. Remove the batteries and wait for 10 seconds.
3. Then reinsert the batteries.  
**Pay attention to the correct polarity and do not use rechargeable batteries!**
4. Close the battery compartment cover.
  - ➔ The Comet Zero ZigBee DHA-257 restarts and is in adaptation mode.
  - ➔ **Ad** appears in the display.
5. To start the adaptation, simultaneously press and hold the **+ button** and **- button** on the Comet Zero ZigBee DHA-257 for approx. 3 seconds.
  - ➔ An animation appears in the display during the course of the process.



### INFORMATION

The Comet Zero ZigBee DHA-257 must be adapted again each time the battery has been changed.

## 6 OPERATION & FUNCTIONS

The following section describes the operating modes and other functions of provided by the Comet Zero ZigBee DHA-257.

### 6.1 OPERATION

#### MANUAL OPERATION

It is possible to change the temperature manually using the buttons on the Comet Zero ZigBee DHA-257. The temperature range is between 8 - 28 °C. If the temperature is increased or reduced beyond the limits, the Comet Zero ZigBee DHA-257 switches to Boost mode or Off mode.

Manual adjustment of the temperature sets the Comet Zero ZigBee DHA-257 to Heating mode.

#### CHANGING OPERATING MODES

##### Off mode

Press the **- button** until **--** appears in the display. The heater valve is closed fully.

##### Heating mode

If you change the target temperature using the **+ button** or **- button**, the Comet Zero ZigBee DHA-257 switches to heating mode.

##### Boost mode

Press the **+ button** until **ON** appears in the display. The heater valve is opened fully.

## 6.2 ADDITIONAL FUNCTIONS

### OFFSET (TEMPERATURE ADJUSTMENT)

If the temperature felt differs from the set temperature, you can perform a temperature adjustment. If necessary, adjust the settings using the ZigBee controller (gateway).

### ALIGN DISPLAY

Depending on the positioning of your radiator valve, it may be necessary to turn the display of your Comet Zero ZigBee DHA-257 by 180°. If necessary, adjust the settings using the ZigBee controller (gateway).

### FROST AND LIME PROTECTION

The frost protection and limescale protection functions are automatically active.

**Frost protection:** If the temperature in a room drops below 6° C, the frost protection function of the Comet Zero ZigBee DHA-257 is automatically activated. -- appears in the display. In this case, the Comet Zero ZigBee DHA-257 opens the valve until the temperature rises above 8 °C. This prevents the radiators from freezing.

**Lime protection:** To prevent the radiator valves from calcifying, the Comet Zero ZigBee DHA-257 executes the limescale protection function every Friday at 11:00 a.m.

### KEY LOCK

Activate the key lock directly on your Comet Zero ZigBee DHA-257:

1. Press and hold the **+ button** and **- button** simultaneously for 3 seconds.  
→ An animation is shown on the display.
2. To deactivate, press and hold the **+ button** and the **- button** simultaneously for a few seconds. Wait until the animation on the display disappears.

### HYDRAULIC BALANCING

The Comet Zero ZigBee DHA-257 supports hydraulic balancing without any extensive valve replacement. The hydraulic balancing can only be used in combination with the ET Home Link DHA-263.



#### INFORMATION

Thanks to the "hydraulic balancing" function, all the energy-saving controllers in a room open or close the heating valves evenly. This prevents radiators becoming too hot or too cold.

## 6.3 DISCONNECTING THE ZIGBEE CONNECTION

It may become necessary to disconnect the connection between the Comet Zero ZigBee DHA-257 and ZigBee controller.

Ensure that the following conditions are fulfilled:

- The batteries have been inserted in the Comet Zero ZigBee DHA-257.
- The ZigBee controller is in exclusion mode.



### INFORMATION

Further information on exclusion mode and the connection process is provided in the operating manual supplied with the ZigBee controller.

1. Open the battery compartment cover.
2. Press and hold the **Reset button** located in the battery compartment for 5 seconds until **LE** appears in the display.
  - The countdown is shown in the display, starting from **99**. The Node ID **0** then appears in the display.
  - You have now disconnected the connection to the ZigBee controller.
  - **PA** appears in the display.

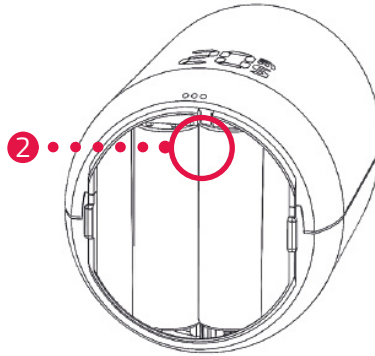


### INFORMATION

If **Er** appears in the display, repeat the process.

## 6.4 RESETTING THE DEFAULT FACTORY SETTINGS

If problems occur, it may be helpful to reset your Comet Zero ZigBee DHA-257 to the factory settings.



1. Open the battery compartment cover.
2. Press and hold the **Reset button** located in the battery compartment.  
→ LE appears in the display after 5 seconds.
3. Keep the **Reset button** in the battery compartment pressed in.  
→ A timer appears in the display which counts up to 10 after which the display is clear.
4. Release the **Reset button** located in the battery compartment.  
→ You have now reset your Comet Zero ZigBee DHA-257 to its factory settings.  
→ PA appears in the display. The Comet Zero ZigBee DHA-257 is in pairing mode.

# 7 ADVANCED ZIGBEE OPERATION

The following section describes the advanced operation of the Comet Zero ZigBee DHA-257 using the ZigBee controller connected.



## INFORMATION

Further information on operation using the ZigBee is available in the operating manual supplied with the ZigBee controller.

Cluster	End point	Cluster ID	Server	Client
Basic	1	0x0000	x	
Power configuration	1	0x0001	x	
Thermostat	1	0x0201	x	x
OTA	1	0x0019		x

## 7.1 BASIC SETTINGS

Cluster	Attribute	Attr. ID	Default Value	Data Type	Read/Write (R/W)	Manufacturer Specific (Y/N)	Reportable (Y/N)
Basic							
	ZCL Version	0x0000	0x02	0x20 (int8u)	R	N	N
	Application Version	0x0001	App Version	0x20 (int8u)	R	N	N
	Stack Version	0x0002	0x04	0x20 (int8u)	R	N	N
	Hardware Version	0x0003	0x22	0x20 (int8u)	R	N	N
	Manufacturer Name	0x0040	0x1010	0x42 (0-32 byte string)	R	N	N
	Model Identifier	0x0005	COZBXXX (XXXX=Application Version)	0x42 (0-32 byte string)	R	N	N
	Date Code	0x0006	YYYYMMDD	0x42 (0-16 byte string)	R	N	N
	Power Source	0x0007	0x03 (battery)	0x30 (8-bit enum)	R	N	N
	Product Code	0x000A	1002 = Eurotronic-CometZigBee	0x42 (0-8 byte string)	R	N	N
	SW Build ID	0x4000	00000000	0x42 (0-16 byte string)	R	N	N

## 7.2 POWER CONFIGURATION

Cluster	Attribute	Attr. ID	Default Value	Data Type	Read/Write (R/W)	Manufacturer Specific (Y/N)	Reportable (Y/N)
Power Configuration							
	Battery Charge Remaining	0x0021	0x00	0x20 (int8u)	R	N	N
	Battery Size	0x0031	0x03 (AA)	0x20 (int8u)	R	N	N
	Battery Quantity	0x0033	0x02	0x20 (int8u)	R	N	N

## 7.3 THERMOSTAT CONFIGURATION

Cluster	Attribute	Attr. ID	Default Value	Data Type	Read/Write (R/W)	Manufacturer Specific (Y/N)	Reportable (Y/N)
Thermostat							
	Local Temperature	0x0000		0x29 (int16s)	R	N	Y
	Pi Heating Demand (valve position %)	0x0008	0x00	0x20 (int8u)	R	N	N
	Local Temperature Calibration	0x0010	0x00	0x28 (int8s)	RW	N	N
	Occupied Heating-Set point	0x0012	0x7D0 (21 ° C)	0x29 (int16s)	RW	N	N
	Unoccupied heating	0x0014	0x7D0 (21 ° C)	0x29 (int16s)	RW	N	N
	Min Heat Setpoint Limit	0x0015	0x01F4 (7.5 ° C)	0x29 (int16s)	R	N	N
	Max Heat Setpoint Limit	0x0016	0x0BB8 (28.5 ° C)	0x29 (int16s)	R	N	N
	System Mode	0x001C	0x04 (Heat)	0x30 (8-bit enum)	RW	N	N
	TRV Mode	0x4000	0x02 (MANU Mode)	0x30 (0-8-bit enum)	RW	Y	N
	Set Valve Position	0x4001	0x00	0x20 (int8u)	RW	Y	N
	Errors	0x4002	0x00	0x20 (int8u)	R	Y	Y
	Current Temperature Set Point	0x4003	0x7D0 (21 ° C)	0x29 (int16s)	RW	Y	Y
	Host Flags	0x4008	0x000001	0x24 (int24u)	RW	Y	N



## 7.4 ATTRIBUTE OF THE SW BUILD ID

This attribute indicates the firmware version of the Comet Zero ZigBee DHA-257.

The value of this attribute is updated following each publication of a new firmware.

## 7.5 PI HEATING REQUIREMENT ATTRIBUTE

The attribute can only be read. When reading the attribute, a whole number is provided without a sign which indicates the current valve position:

- 0 = Valve closed
- 100 = Valve open

## 7.6 ERRORS

Bit	7	6	5	4	3	2	1	0
Error	Unas- signed	Unas- signed	No valve movement possible (E3)	Valve movement too slow (E2)	Valve adaptation failed (E1)	Unas- signed	Unas- signed	Unas- signed

## 7.7 SET VALUE OF CURRENT TEMPERATURE

Every value which is written in the **Thermostat / Assigned / Unassigned set heating value (0x0012 or 0x0014)** attribute is automatically copied in the **Current Set Temperature Value (0x4003)** attribute. This enables operation of the thermostat valve without the customer-specific attributes having to be known.


## 7.8 ATTRIBUTE REPORT

Device Type	Pre-Configured Reporting Interval	Cluster	Attribute	Attribute ID
TRV	Report on change	Thermostat	Errors	0x4002
TRV	Report on change	Thermostat	Current Temperature Set point	0x4003
TRV	Report on change	Thermostat	Host Flags	0x4008

## 8 DISASSEMBLY

If necessary, you can disassemble the Comet Zero ZigBee DHA-257 from the radiator valve.

Ensure that the following conditions are fulfilled:

- The batteries have been inserted in the Comet Zero ZigBee DHA-257.
- The connection to the ZigBee controller has been disconnected, see  Section **6.3 Disconnecting the ZigBee Connection on Page 21**.
- PA appears in the display.

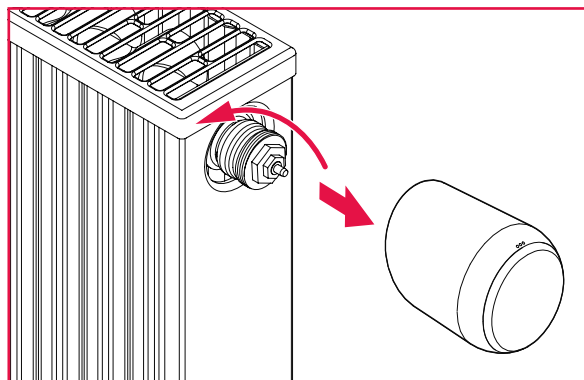


### CAUTION!:

#### Burns caused by hot radiator valve!

Touching can cause burns to the hand.





- ➔ Do not touch hot radiator valves!
- ➔ Allow the radiator to cool down before installing, disassembling or clearing faults on the device!



1. Turn the union nut anti-clockwise.
2. Pull the Comet Zero ZigBee DHA-257 from the radiator valve (see illustration).
  - ➔ The Comet Zero ZigBee DHA-257 has been disassembled.

## 9 TROUBLESHOOTING

Problems can arise with the Comet Zero ZigBee DHA-257. The following information will help you clear any errors.

Problem	Cause	Remedy
C1	Pairing with the ZigBee controller has failed.	<ul style="list-style-type: none"> <li>Press any button.</li> <li>The error message in the display is deleted and Configuration mode is restarted. <b>PA</b> appears in the display first, then and countdown starts.</li> </ul>
The radiator does not heat up.	The boiler water temperature is too low or the radiator valve could be calcified and, as a result, cannot open.	<ul style="list-style-type: none"> <li>Raise the boiler water temperature.</li> <li>Disassemble the Comet Zero ZigBee DHA-257. Move the valve plunger in and out with an appropriate tool to loosen any calcification.</li> <li>Assemble the Comet Zero ZigBee DHA-257 on the radiator valve again.</li> </ul>
The radiator does not cool down.	The radiator valve does not close fully. It is possible that the closing point of the valve seal has moved.	<ul style="list-style-type: none"> <li>Disassemble the Comet Zero ZigBee DHA-257.</li> <li>Move the valve plunger in and out several times with an appropriate tool to loosen any calcification.</li> <li>Assemble the Comet Zero ZigBee DHA-257 on the radiator valve again.</li> </ul>
The pressure piece drops out.	If your Comet Zero ZigBee DHA-257 is not installed on the valve, the pressure piece fitted on the underside can fall out of the endless thread.	<ul style="list-style-type: none"> <li>Remove the batteries from the Comet Zero ZigBee DHA-257.</li> <li>Insert the pressure piece in the Comet Zero ZigBee DHA-257.</li> <li>Insert the batteries in the Comet Zero ZigBee DHA-257.</li> </ul>
<b>ER, E1-E3</b>	<b>Pressing any button clears the error indication in the display and the adaptation restarts.</b>	
	Disconnection (exclusion) from the ZigBee controller has failed.	<ul style="list-style-type: none"> <li>Set the ZigBee controller to disconnection mode.</li> <li>Ensure that the Comet Zero ZigBee DHA-257 is within range of the ZigBee controller.</li> </ul>
	The radiator valve is not installed or not detected.	<ul style="list-style-type: none"> <li>Press any button to confirm.</li> <li>Ensure that the Comet Zero ZigBee DHA-257 has been installed correctly on the radiator.</li> <li>Use the appropriate adapter.</li> </ul>
	The valve cannot be moved or the radiator valve jams.	<ul style="list-style-type: none"> <li>Ensure that the Comet Zero ZigBee DHA-257 has been installed correctly on the radiator and the valve plunger can move freely.</li> </ul>
	The batteries are weak.	<ul style="list-style-type: none"> <li>Change the batteries.</li> </ul>

# 10 CLEANING AND STORAGE

Switch your Comet Zero ZigBee DHA-257 off and remove the batteries if you will not be using the Comet Zero ZigBee DHA-257 for a longer period of time. Store the Comet Zero ZigBee DHA-257 in a dry, dust-free location.



## IMPORTANT!

### Material damage possible!

Improper handling of the device can lead to damage.

- Do not immerse the device in water or other liquids.
- Do not use any brushes with metal or nylon bristles or sharp or metallic cleaning tools such as knives, hard spatulas and such. They can damage the surfaces.
- Clean the device with a soft, dry, lint-free cloth.
- Do not use cleaning agents or solvents.

# 11 APPENDIX

The following sections contain information on technical data, customer service and other legal information.

## 11.1 TECHNICAL DATA

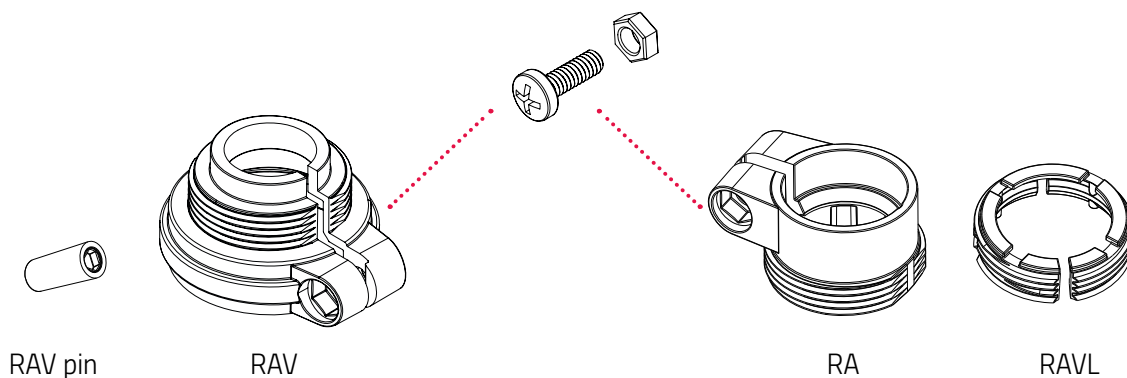
The list below contains technical data concerning the Comet Zero ZigBee DHA-257:

Designation	Comet Zero ZigBee DHA-257
Article number	700257
EAN number	4260012712551
Supply voltage	2 × batteries, 1.5 V AA/LR6
Threaded connection	M30 × 1.5 mm
Method of operation	Type 1
Dimensions	62 × 68 × 83 mm
Weight	230 g (incl. batteries)
Protection class	IP 20
Degree of contamination	2
Connection protocol	ZigBee 3.0
Radio frequency	2.4 GHz
Maximum transmission power	+8 dBm

Subject to technical changes at any time. Compatibility information provided without guarantee.

## 11.2 ADAPTER OVERVIEW

The following overview contains information about the valves and the required adapters. The adapters for Danfoss RAV, Danfoss RA and Danfoss RAVL are included with your Comet Zero ZigBee DHA-257. When using the Danfoss RAV adapter, the RAV pin must be inserted on the valve plunger.

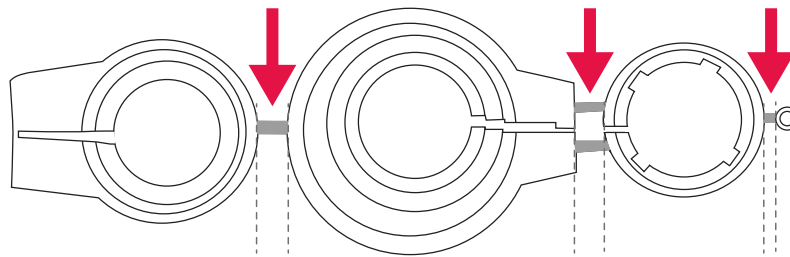


Valve	Thread dimension	Adapter
Heimeier	M30 × 1.5 mm	Not required
Junkers Landys+Gyr	M30 × 1.5 mm	Not required
MNG	M30 × 1.5 mm	Not required
Honeywell	M30 × 1.5 mm	Not required
Braukmann	M30 × 1.5 mm	Not required
Herz	M28 × 1.5 mm	Required; not in scope of delivery
Comap	M28 × 1.5 mm	Required; not in scope of delivery
Vaillant	30.5 mm	Required; not in scope of delivery
Oventrop	M30 × 1.0 mm	Required; not in scope of delivery
Meges	M38 × 1.5 mm	Required; not in scope of delivery
Ondal	M38 × 1.5 mm	Required; not in scope of delivery
Giacomini	22.6 mm	Required; not in scope of delivery
Rosswainer	M33 × 2.0 mm	Required; not in scope of delivery
Markaryd	M28 × 1.0 mm	Required; not in scope of delivery
Ista	M32 × 1.0 mm	Required; not in scope of delivery
Vama	M28 × 1.0 mm	Required; not in scope of delivery
Pettinaroli	M28 × 1.5 mm	Required; not in scope of delivery
T+A	M28 × 1.5 mm	Required; not in scope of delivery
Gampper 1/2/6	M20	Required; not in scope of delivery
Danfoss RA/RAV/RAVL	25.5/30.5/30 mm	Included in scope of delivery



### INFORMATION

Remove the connecting pieces of the plastic adapters (see illustration) before using one of the adapters included. Use the screw and nut enclosed when using the Danfoss RAV and Danfoss RA adapters.



### CAUTION!:

#### Danger of being cut!

The adapters supplied and the plunger extension are connected by plastic bars. Fractures may be sharp-edged.

→ Be careful not to cut your fingers during installation!



### CAUTION!:

#### Danger of becoming trapped between the adapter halves!

Carelessness when using adapters can lead to injuries.

→ Take care not to become trapped between the adapter halves during installation!

You can purchase further metal adapters for a fee from our partners. You will find an overview of the metal adapters and corresponding ordering options under the following link:

<https://eurotronic.org/produkte/zubehoer/metalladapter/>

## 11.3 SUPPORT AND CONTACT

You can contact us for technical support.  
We look forward to assisting you with your enquiry:

Phone: +49-(0)-6667-91847-0  
E-mail: support@eurotronic.org  
Customer service: **EUROtronic Technology GmbH**  
Südweg 1  
36396 Steinau-Ulmbach  
Germany

## 11.4 DISPOSAL



### INFORMATION

Please inform yourself about the options for returning old devices and used batteries free of charge at your retailer.



The adjacent symbol indicates that electrical and electronic apparatus no longer required must be disposed of separate from domestic waste in accordance with legal directives. Dispose of the device at a collection point provided by your municipal waste authorities.



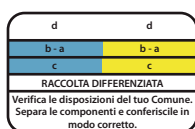
Defective or spent batteries must be recycled according to Directive 2006/66/EC. Return batteries and / or the device via the recycling services offered.



Observe the identifications on the packaging when sorting the waste materials; the identifications are comprised of abbreviations (a) and numbers (b) and have the following significance: 1–7: plastics / 20–22: paper and cardboard / 80–98: composite materials.



Dispose of the packaging according to type. Dispose of cardboard and carton at waste paper collection points and foil at recyclables collection points. By recycling, material recovery or other forms of recycling, you are making an important contribution to protecting our environment.



The logo only applies to Italy.



## 11.5 SIMPLIFIED DECLARATION OF CONFORMITY

**CE** EUROtronic Technology GmbH hereby declares that the radio equipment type Comet Zero ZigBee DHA-257 complies with Directive 2014/53/EU. The entire text of the EU Declaration of Conformity is available at the following Internet address: <https://eurotronic.org/service/downloads>

## 11.6 WARRANTY NOTICE

The warranty period is 24 months and begins on the day of purchase. Keep your receipt as proof of purchase. During the warranty period, defective energy-saving controllers can be sent to the service address with sufficient postage. To do this, contact our Customer Service before returning the item. You will then receive a new or repaired device in return free of charge. Receipt of a repaired or replacement of the device does not begin a new warranty period. Please note that we guarantee the functions of the device, not the functionality between the interaction of the device and the valve base.

The application-related technical data is only guaranteed together with the valves Heimeier, Junkers Landys+Gyr, MNG, Honeywell Braukmann thread dimension (M30x1.5), Oventrop (M30x1.5) Danfoss RA, RAV and RAVL. The device combinations can be viewed at our website (<https://eurotronic.org/service/faq>). When operating your Comet Zero ZigBee DHA-257 with third-party valves/adapters that are not listed, the functionality must be ensured by the user. EUROtronic does not provide warranty service in these cases.

After the warranty period has expired, you retain have the option of sending the device to the address provided for repair, ensuring sufficient postage. Repairs required after the expiration of the warranty period are subject to a charge. Your statutory rights are not limited by this warranty.

## 11.7 MANUFACTURER

### **EUROtronic Technology GmbH**

Südweg 1  
36396 Steinau-Ulmbach  
Germany

+49 (0) 6667 91847-0  
[support@eurotronic.org](mailto:support@eurotronic.org)  
[www.eurotronic.org](http://www.eurotronic.org)



**EUROtronic Technology GmbH**  
Südweg 1 | 36396 Steinau-Ulmbach | Deutschland/Germany  
[www.eurotronic.org](http://www.eurotronic.org)