Operating instructions
Comet Z-wave

Comet Z-wave

Button in battery compartment

An intelligent home in two simple steps:

Installation
Install the batteries. PREP appears on the display. The motor will start completely in order to facilitate installation. INST appears on the display as soon as the Comet Z-wave is installation-ready. The flashing radio symbol signals that the device is ready to be enrolled.

Restoring factory settings
To restore factory settings, proceed as follows:
1) Start the deletion process through the central unit or Gateway
2) Press and old the button in the battery compartment for 5 seconds.

Scope of supply
1x Comet Z-wave
1x Operating instructions (part of the product)
3x Adapters (Danfoss RA, Danfoss RAV, Danfoss RAVL)

Intended use
With Comet Z-wave, you have acquired a programmable radiator thermo-stat, which can be used to regulate temperature in closed rooms and thus can contribute to a reduction in heat energy. Please use the regulator for this purpose only.

Safety instructions
Never recharge, short-circuit or disassemble the batteries - danger of explosion! Remove expired batteries from the device immediately. Shield batteries from strong heat - increased risk of leakage! Do not use new and old batteries together. Clean batteries and device contact before installation if necessary. Keep batteries away from children. Avoid contact with skin, eyes and mucous membranes. Rinse areas affected by battery acid with clean water immediately and seek medical advice.
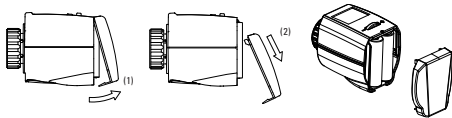
Description
Comet Z-wave is a Z-Wave radio standard compatible energy-saving radiator thermostat.

Use
The installation of the Comet Z-waves can easily be installed on all known valve bottom sections; without dirt or water spots because the heating circuit is not interrupted.
1. Fully unscrew the old thermostat, loosen the fitting and remove from the valve.
2. 2. Remove the battery cover, by pressing it upwards on the marked spot (1) and take it off its hinges (2).

Install the batteries as shown. Do not use rechargeable batteries! Ensure correct polarity! PREP appears on the display. The motor will start completely in order to facilitate installation. As soon as the regulator is installation-ready, INST appears on the display. The flashing radio symbol signals that the device is ready to be enrolled. Start the enrolment procedure (Inclusion) on your Gateway/Controller in order to include the device in the network.
3. Screw the union nut (ring on product) on the valve. If the union nut does not fit on you valve, you probably need an adapter.
4. Press the button in the battery compartment. The energy-saving thermo stat shows ADAP in the display and carries out an initialisation run. After initialisation, the energy-saving thermostat shows the main screen. INFO When an error occurs, an error code is shown. Look in the „Help" table.

No adapter is required for the following valves:
Heimeier, Junkers Landys+Gyr, MNG, Honeywell Braukmann, since these have thread dimensions of M30 x 1.5 mm. Adapters for Danfoss RAV (pin must be put on the valve tappet) Danfoss RA and Danfoss RAVL are enclosed.

An adapter is required for the following valves:
Herz M28 x 1.5 mm, Comap M28 x 1.5 mm, Vaillant 30.5 mm, Oventrop M30 x 1.0 mm, Meges M38 x 1.5 mm, Ondal M38 x 1.5 mm, Giacomini 22.6 mm, Rossweiner M33 x 2.0 mm, Markaryd M28 x 1.0 mm, Ista M32 x 1.0 mm, Vama M28 x 1.0 mm, Pettinaroli M28 x 1.5 mm, T+A M28 x 1.5 mm or Gampper 1,2,6. These can be found at www.eurotronic.org

Please fully remove the plastic connectors before you use one of the enclosed adapters! Please fully remove the connecting rods marked in grey before installing the adapter!

Addition/removal to/from the network
In order to enrol and delete the device manually, start the enrolment/deletion process of your central unit/gateway. Press and hold the button in the battery compartment of the Comet Z-wave for 5 seconds. The device moves into installation position in order to enable (de)installation.

Operation and display elements on the display
1.   Battery empty
2.   Comfort temperature active
3.   Economy temperature active
4.   Window-/frost protection function active
5.   Wireless active
6.   AUTO or MANU mode active
7.   Adjusting wheel + and -
8.   Button in battery compartment

Basic modes of operation

AUTO mode
The Comet Z-wave regulates temperature as per factory settings or wireless set-up

Factory settings
Comfort temperature (Factory settings 22°C)
Economy temperature (Factory settings 18°C)

MANU mode
Comet Z-wave switches to MANU mode when you change the temperature by hand on the adjusting wheel. The setting overwrites the wireless set-up for two hours. After this, the setting changes automatically to the previously-programmed setting. If you wish to change the settings prior to this, you may do this via wireless.

Standby
The screen switches off 30 seconds after the last entry on the device to save electricity. The display can be switched on again by turning the adjusting wheel in any direction.

Frost protection, open window recognition and hard water protection functions are automatically active.

Frost protection function
If the temperature falls below 6°C, the energy-saving thermostat opens the valve until the temperature rises above 8°C again. This stops the radiator from freezing.
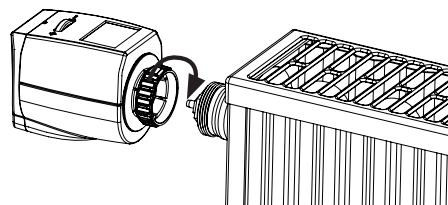
Hard water function
To avoid calcification of the radiator valves, the energy-saving thermostat carries out a hard water protection cycle once a week.

Open window function
If the temperature falls sharply, open window recognition is activated and the open window active symbol is shown. In this instance, the valve is closed for 15 minutes.

Uninstallation

In order to uninstall the energy-saving thermostat, press and hold the button down for 3 seconds. The device moves into the installation po-sition. When the installation position has been reached (display shows INST), youmay take out the batteries and unscrew the energy-saving thermostat from the valve.

Cleaning
Use only a dry to lightly-damp cloth to clean the Comet Z-wave. Avoid using chemical solvents,. They may damage the device.

Advice on environmental protection:
From the date of implementation of European guidelines 2002/96/EC and 2006/66/EC, into national law, the following applies: Electric and electronic devices and batteries may not be disposed of in household waste. The consumer is obliged to return electric and electronic devices and batteries to the public collection points established for them or to the point of sale. The particulars of this are regulated by the applicable state laws. The symbol on the product, operation instructions or packaging points to these provisions. You make an important contribution to the protection of the environment by reusing or recycling old equipment/batteries or making use of them in other ways.

Declaration of conformity
Eurotronic Technology GmbH hereby declares that this device is compliant with the essential requirements and other relevant provisions of 1995/5/EC. The declaration of conformity according to the R&TTE guideline 99/5/EC can be found at www.eurotronic.org.

Guarantee
The three-year warranty begins on the day of purchase. Please keep the receipt as evidence of purchase in the future. During the guaran-tee period, defective radiator thermostats may be sent to the service address below. Please ensure sufficient postage is paid. A new or repaired device will then be sent to you free of charge. Following expiry of the guarantee, you may still send the defective device to the address below for repairs. Please ensure sufficient postage is paid. Repairs carried out after the guarantee period are subject to a charge. Your legal rights are not affected by this guarantee. There is no new warranty period starting when repairing or replacing the device. Please note that we only grant warranty on the function of the device. We will not grant warranty for the interaction between the thermostat and the bottom part of the valve. The technical data is only valid for the use of the following valves: Heimeier, Junkers Landys + Gyr, MNG, Honeywell, Braukmann (measure of thread M30 x 1,5), Oventrop (M30 x 1,5) Danfoss RA, RAV and RAVL. Please see the combinations of the devices on our website (www.eurotronic. org/ Adapter list) EUROtronic does not issue a guarantee when using the thermostat with valves which are not mentioned above.

www.eurotronic.org

Help and error messages

Problem	Cause	Solution
🔋 (battery symbol)	Batteries do not have enough power.	Replace batteries.
Heating element does not warm up.	Is the boiler water temperature O.K.?	Adjust the temperature of the boiler water.
	Valve does not open, is it calcified after the summer pause/ heating pause?	Remove the Comet Z-wave, move the valve back and forth per hand or with a tool.
Heating element does not cool down.	Valve does not close completely. It may be that the closing point of your valve seat has shifted.	Adapt again (see "Adapting") Move the valve stem several times by hand, it may be that adaptation is impossible because your valve is calcified or the seat no longer performs its function.
Pressure piece falls out (This can also cause an E1-error)	Due to an endless thread the pressure piece, which is situated at the bottom, can fall out if the device has not been affixed on the valve.	Put in the pressure piece. Press the Button for 3 sec. The endless thread is rotating now and fixes the pressure piece again. Just install it to the radiator and adapt it once again.
E1-E3	Press the button for 3 seconds. The fault indication is deleted. The device moves to the mounting position (display shows PREP or INST).	
E1	No adaptation possible. Comet Z-wave is not installed to the heater.	Is the installation OK? Install Comet Z-Wave to the heater.
E2	Valve stroke is too short.	Open and close the valve several times manually or replace the batteries.
E3	Motor movement is not possible.	Does the valve stem move freely?

Technical details

Safety class	IP20
Operating environment	0 °C bis + 50 °C
Operating voltage	3V (2x 1,5V AA/LR06 batteries)
Communication	Z-Wave bidirectional
radio frequency	868,4 MHz
Dimensions (L x B x H)	88 mm x 55 mm x 65 mm
Open window recognition	activated by an change in temperature of approx. 0.5°C within 1 minute
Measuring frequency	Temperature measurement every minute
Control range	6°C – 28°C

Implemented Z-Wave device class

Z-Wave device class	Implemented device class
General device	thermostat
Specific device	thermostat general V2

Supported command classes

Command class	Set	Read	Description
BASIC	YES	YES	Enables control of basic functions (ON/OFF)
BATTERY	NO	YES	Shows the charge status of the battery as a percentage.
MANUFACTURER _SPECIFIC	NO	YES	Gives manufacturer information and product information for the Comet Z-wave
NODE_ NAMING	YES	YES	Makes it possible to name the device and the place of installation
SENSOR_ MULTILEVEL	NO	YES	Displays the temperature measured by the device
SWITCH_ MULTILEVEL	YES*	YES	Displays the degree of openness of the valve 0% equates to a closed valve, 100% an open valve
THERMOSTAT _MODE	YES	YES	Sets or displays the usage mode of the Comet Z-wave Available modes OFF Frost protection (device maintains 6°C) Display shows „OFF" HEAT Comfort temperature display shows HOUSE SYMBOL and set temperature ENERGY SAVE HEAT Economy temperature display shows OUT OF HOUSE SYMBOL and set temperature MANUFACTURER_ SPECIFIC enables direct control of the valve opening grade via SWITCH_MULTI-LEVEL display shows REMO
THERMOSTAT_ SETPOINT	YES	YES	Sets or displays the required temperature
VERSION	NO	YES	Displays the product function and command classes
WAKEUP	YES	YES	Enables configuration of the wake-up interval

*This function is only available if THERMOSTAT_MODE ahas been set to MANUFACTURER_SPECIFIC