MULTIREG® Z-Wave thermostat

Installation and operating instructions

MULTIREG® Z-WAVE THERMOSTAT - SETUP

This manual describes the most essential functions and technical specifications of the thermostat.

These instructions should help the user to control the thermostat, and the electrician to install and set up the thermostat.
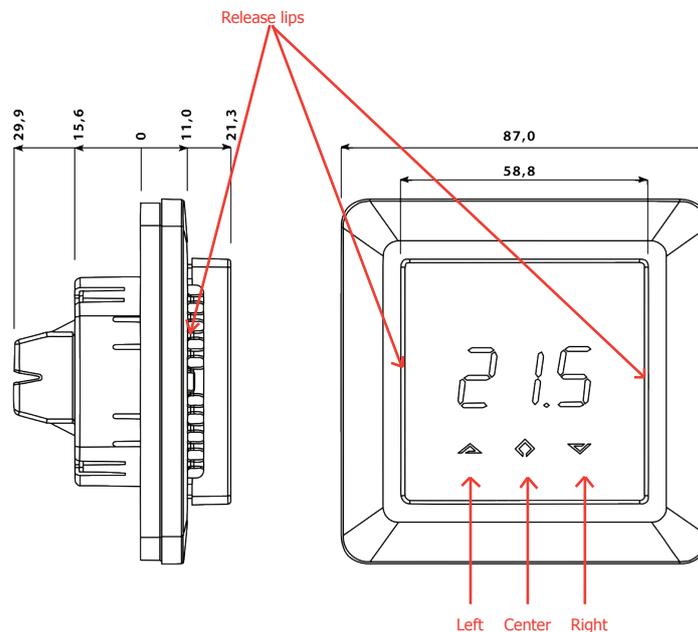
INSTALLATION

Installation must be done by a qualified electrician in accordance with wiring and building regulations.
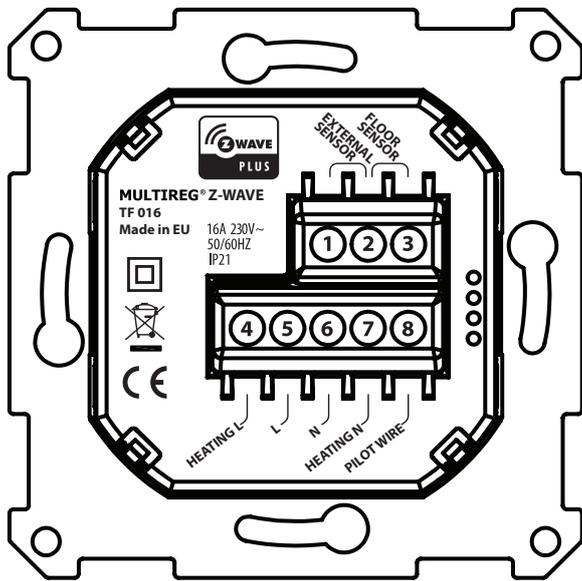Before installation, disconnect any power to the thermostat's mains.
During installation of the thermostat, power to the thermostat must be disconnected or isolated AT ALL TIMES!

Start by carefully removing the front cover by pushing the release lips.

Use e.g. a small slotted screwdriver. The front cover and the frame can now be removed.

Now connect the wires to the thermostat's terminals:

HEATING (N)	Heating Cable connection (Neutral)
N	Power connection (Neutral)
L	Power connection (Live)
HEATING (L)	Heating Cable connection (Live)
PILOT	230V Pilot signal
FLOOR SENSOR	NTC type (10, 12, 15, 33 or 47kΩ). Default 10kΩ
EXTERNAL SENSOR	NTC type (10, 12, 15, 33 or 47kΩ). Default 10kΩ

Next, position the thermostat and fasten it onto the wall's mounting box using 2-4 screws. Position the frame, then position and carefully press the front cover until it snaps in place. Check that the front cover has snapped in place properly on both the left and the right side. The front cover should now be firmly fixed on all sides.

STARTUP

AFTER CONNECTING THE POWER TO THE THERMOSTAT FOR THE FIRST TIME, ALL PARAMETERS WILL BE CHANGED TO DEFAULT SETTINGS.

CONTROL

The thermostat is controlled by three touch sensitive capacitive buttons.
You only need to **touch lightly** to activate the buttons.
- Left (Up)
- Center (Confirm)
- Right (Down)

INCLUSION/EXCLUSION

To include the thermostat to your home automation gateway, press Center (confirm) for 10 seconds.
The display will show OFF. Press Right (down) 4 times till you see Con in the display.

Now start add device in your home automation software. Start inclusion mode by pressing Center (confirm) for approximately 2 seconds. The inclusion/exclusion icon will appear in the display. Confirmation will show Inc/EcL in the display. If inclusion fails, Err (error) will appear.

Leave programming mode by choosing ESC in menu. Your thermostat is ready for use with default settings.

PROGRAMMING YOUR THERMOSTAT

To activate the programming mode, press Center (confirm) for 10 seconds. The display will show OFF. You are now in programming mode. To scroll up and down in the menu use button 1 and 3 (left and right) to navigate. To enter submenu press Center (confirm). Always confirm your setting by pressing Center (confirm) for 2 seconds.

Menu:
OFF: Turns the thermostat off
A: Sensors:

	A	Air sensor
	AF	Air+Floor sensor
	A2	External sensor
	P	Power regulator
	FP	Floor sensor + Power regulator
	F	Floor sensor

Sen: Select the right Ohm value for your external/floor sensor. NTC type (10, 12, 15, 33 or 47kΩ). Default 10kΩ.
CAL Calibration of displayed temperature.
br1 Brightness of display can be adjusted in this menu.
Con Activation of inclusion/exclusion mode.
diF Hysteresis
ALo Setting lowest allowed temperature (limitation). (Air sensor)
AHI Setting highest allowed temperature (limitation). (Air sensor)
Flo Setting lowest allowed temperature (limitation). (Floor sensor)
FHI Setting highest allowed temperature (limitation). (Floor sensor)
ESC Escape – exit the programming menu.

CHOOSING A SENSOR

The thermostat has a range of choices when it comes to sensors. To get to the menu you have to press Center (confirm) for 10 seconds, then press Right (down) once and an A shows in the display. Then press Center (confirm) again and you can choose one of these modes, while moving up and down with buttons Left or Right.

A Air sensor
AF Air+Floor sensor
A2 External sensor
P Power regulator
FP Floor sensor + P regulator
F Floor sensor

When you have decided on the sensor mode you want to use, press Center (confirm) button.
If you choose F or AF and there is no floor sensor installed, Err will display in the screen.

SELECTING THE RIGHT OHM VALUE FOR YOUR EXTERNAL/FLOOR SENSOR

The following values are available: NTC type (10, 12, 15, 33 or 47kΩ). Default 10kΩ.
The function is only active when an external sensor is connected. Confirm with Center (confirm) button.

CALIBRATION

In this mode you are able to adjust the displayed temperature. If the thermostat or sensor for some reason is not calibrated properly you are able to make minor changes to the temperature. You are able to raise/lower the set point by up to 4°C. Confirm with Center (confirm) button.

BRIGHTNESS

Use Left and Right (up and down) button to adjust the brightness between 0-9. Confirm with Center (confirm) button.

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Now start add device in your home automation software. Start inclusion mode by pressing Center (confirm) for approximately 2 seconds. The inclusion/exclusion icon will appear in the display. Confirmation will show Inc/EcL in the display. If inclusion fails, Err (error) will appear.

Leave programming mode by choosing ESC in menu. Your thermostat is ready for use with default settings.

HYSTERESIS (DIF)

In this mode you are able to make changes to the hysteresis in the thermostat. This means that you can changes the hysteresis from 0,2C up to max 3,0C. Confirm with Center (confirm) button.

MIN/MAX TEMPERATURE SETTINGS

FLO - Min Floor temperature
FHI - Max Floor temperature
ALO - Min Air temperature
AHI - Max Air temperature
PLO - Min temperature in Power Reg Mode

Confirm with Center (confirm)

ESC

Leaving programming mode. Confirm with Center (confirm) button.

STANDBY AND MAIN SCREEN

When the thermostat remains untouched for a while, it will automatically go to standby screen. Standby screen shows the actual temperature in the room in a low density screen. By pressing Left or Right (up or down) button, the set point will be shown in the display.

DISPLAY ON/OFF - don/doF

Activate by pressing Left and Center (up and confirm) button for 10 seconds. In case doF is activated, the screen will be totally black (can be used if installed where people are sensitive to the light of the display).

CHILD LOCK - LOC

By pressing Left and Right (up and down) buttons for 10 seconds, child lock will be activated and no changes can be made. Trying to make changes causes the LOC text to appear in the display. Child lock can be deactivated by pressing Left and Right (up and down) buttons for 10 seconds. OPn will appear in the display.

FACTORY RESET - RES

By pressing buttons Left and Center (up and confirm) for 20 seconds, the thermostat will perform a complete factory reset. *NB! Please use this procedure only when the primary controller is missing or otherwise inoperable.*

CO/ECO MODE

The thermostat has 2 main programs, CO – comfort mode and ECO - economy mode. When Center (confirm) button is pushed for 2 seconds you switch between the 2 modes. You would normally have 2 different set-points for the different modes.
CO – mode: Is used for normal use. Example: 22°C.
ECO – mode: Is a setback mode that you can use if the thermostat is installed in a room or a house that is rarely used. The ECO-mode can also be activated by the pilot wire if this is connected. Example: 15°C.
Some gateways also support switching between CO/ECO mode.

TECHNICAL SPECIFICATIONS

Display	LED-display 3x 7-Seg 13.2mm CA white
Power supply	230V - 50/60Hz
Maximum load	16A (resistive)
Temperature range	+5°C/+40°C
Displayed temperature	-30°C …. 60°C
Floor min. limit	5°C (5°C…35°C)
Floor max. limit	35°C (5°C…35°C)
Air min. limit	5°C (5°C…40°C)
Air max. limit	35°C (5°C…40°C)
Regulator min. limit	0 (0…9)
CO set point	21°C (5°C…40°C)
ECO set point	18°C (5°C…40°C)
Power regulator	P02 (P00…P10) cycle of 30 minutes
Temperature setback	Adjustable within temperature range.
Temperature setback activation	Pilot wire/Z-Wave user interface
IP class	IP21
Standard Color	White RAL 9003 – Black RAL 9011
Approvals	CE – FIMKO - Z-Wave Plus

Note: Wooden floor requires that a floor sensor is connected. Thus, floor temp is limited to 27°C.

In order to run some schedule or week program, the gateway (controller) should be responsible for controlling the thermostat using those selected command classes.

CLASSES

GENERIC_TYPE_THERMOSTAT
SPECIFIC_TYPE_SETPOINT_THERMOSTAT

COMMAND_CLASS_BASIC
COMMAND_CLASS_THERMOSTAT_SETPOINT_V3
COMMAND_CLASS_THERMOSTAT_SETBACK
COMMAND_CLASS_SENSOR_MULTILEVEL
COMMAND_CLASS_VERSION
COMMAND_CLASS_MANUFACTURER_SPECIFIC
COMMAND_CLASS_ASSOCIATION
+ All other mandatory classes for selected device type