



TKB Home

Digital Heating Thermostat

SKU: TKBETZ1036



Quickstart

This is a **Z-Wave Device** for **Europe**. To run this device please connect it to your mains power supply. To add this device to your network execute the following action:

When switch off , tap "Manual" continuously three times in two seconds , "wireless" start to flicker. "wireless" display or vanish after add device successfully.

What is Z-Wave?

Z-Wave is the international wireless protocol for communication in the Smart Home. This device is suited for use in the region mentioned in the Quickstart section. (For more information about frequency regulations please refer to [the frequency coverage overview at Sigma Designs Website](#)).

Z-Wave ensures a reliable communication by reconfirming every message (**two-way communication**) and every mains powered node can act as a repeater for other nodes (**meshed network**) in case the receiver is not in direct wireless range of the transmitter.

This device and every other certified Z-Wave device can be **used together with any other certified Z-Wave device regardless of brand and origin** as long as both are suited for the same frequency range.

If a device supports **secure communication** it will communicate with other devices secure as long as this device provides the same or a higher level of security. Otherwise it will automatically turn into a lower level of security to maintain backward compatibility.

For more information about Z-Wave technology, devices, white papers etc. please refer to www.z-wave.info.



Product Description

Heating thermostat with LCD Screen, adopt z-wave technology to realize remote and manual control. The thermostat is recommended for the control of electric heating device or on/off valve actuator used in hydronic heating .

Prepare for Installation / Reset

Please read the user manual before installing the product.

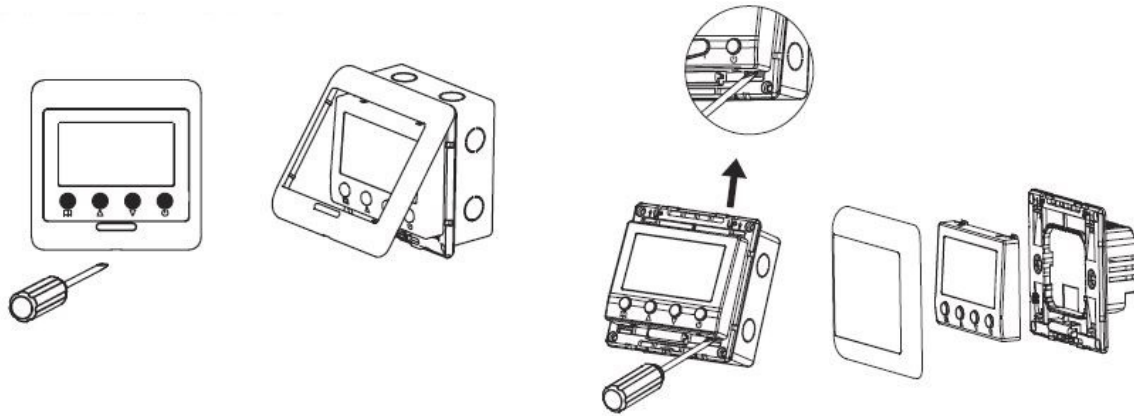
In order to include (add) a Z-Wave device to a network it **must be in factory default state**. Please make sure to reset the device into factory default. You can do this by performing an Exclusion operation as described below in the manual. Every Z-Wave controller is able to perform this operation however it is recommended to use the primary controller of the previous network to make sure the very device is excluded properly from this network.

Safety Warning for Mains Powered Devices

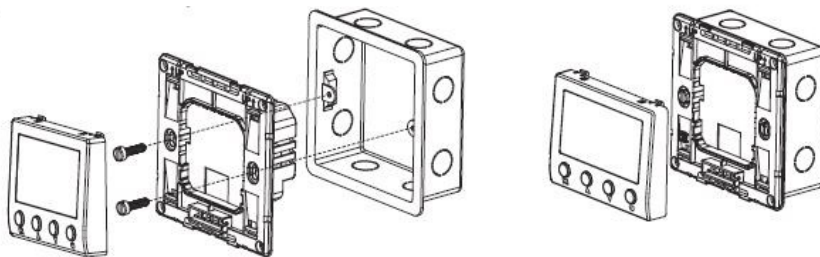
ATTENTION: only authorized technicians under consideration of the country-specific installation guidelines/norms may do works with mains power. Prior to the assembly of the product, the voltage network has to be switched off and ensured against re-switching.

Installation

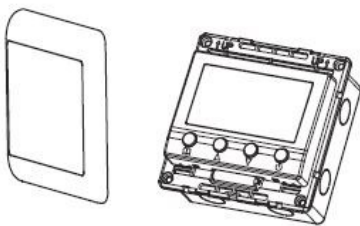
1. Release the front cover by inserting a screwdriver into bottom crack.
2. To pry out the snaps from four directions.



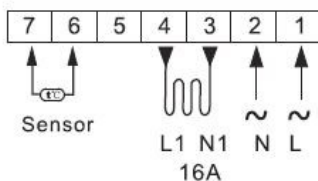
3. After connecting wires, mounting the backing plate in the wall box by screwdriver.
4. Mounting the thermostat on the backing plate.



5. Remount the cover and frame



Connection Plan



Inclusion/Exclusion

On factory default the device does not belong to any Z-Wave network. The device needs to be **added to an existing wireless network** to communicate with the devices of this network. This process is called **Inclusion**.

Devices can also be removed from a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

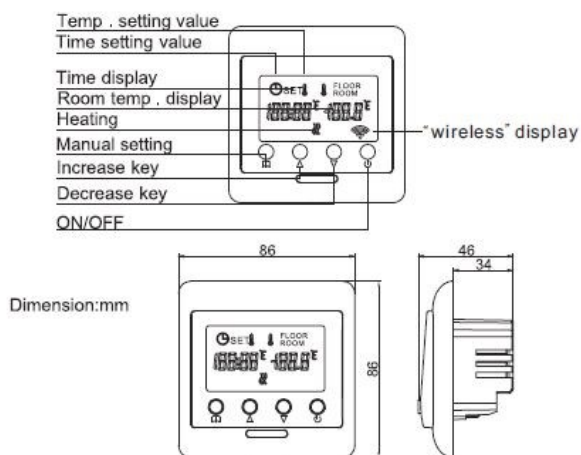
Inclusion

When switch off, tap "Manual" continuously three times in two seconds, "wireless" start to flicker. "wireless" display or vanish after add device successfully.

Exclusion

When switch off , tap "Manual" continuously three times in two seconds , "wireless" start to flicker. "wireless" display or vanish after delete device successfully.

Product Usage



Manual:

When switch off , tap "Manual" continuously three times in two seconds , "wireless" start to flicker. "wireless" display or vanish after add or delete device successfully.

Press "Manual", chose temperature setting or time setting.

Press the "Manual" key for 3 seconds, LCD screen display room & Floor temperature for switching.

Under in temperature setting mode

Press ▲ key to increase the set value and press ▼ key to decrease, every step 0,5°C

Under in time setting mode

Press ▲ or ▼ key to adjust present time.

Under in temperature calibration

Press ▲ or ▼ key for 3 seconds into adjust temperature calibration

Press ▲ or ▼ key to adjust present checked value. adjustable scale: 9.9°C

After add device successfully, temperature regulation , switch on/off by control terminal equipment.

Sensor Failure:

Please select the right sensor mode when operation it will display the "Err" symbol on screen for sensor failure. Thermostat must be checked till the fault is eliminated.

Attention : The thermostat which connect the electric heating device is apply to full load (3200W) heating cable in 2500m height above sea level, and the rated power of external load should be less than or equal to 80% rated power thermostat when in the 2500m to 4200m height.

Quick trouble shooting

Here are a few hints for network installation if things dont work as expected.

1. Make sure a device is in factory reset state before including. In doubt exclude before include.
2. If inclusion still fails, check if both devices use the same frequency.
3. Remove all dead devices from associations. Otherwise you will see severe delays.
4. Never use sleeping battery devices without a central controller.
5. Dont poll FLIRS devices.
6. Make sure to have enough mains powered device to benefit from the meshing

Association - one device controls an other device

Z-Wave devices control other Z-Wave devices. The relationship between one device controlling another device is called association. In order to control a different device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called association groups and they are always related to certain events (e.g. button pressed, sensor triggers, ...). In case the event happens all devices stored in the respective association group will receive the same wireless command wireless command, typically a 'Basic Set' Command.

Association Groups:

| Group Number | Maximum Nodes | Description |
|--------------|---------------|-------------|
| 1 | 1 | Lifeline |

Technical Data

| | |
|-------------------|----------------------------------|
| Dimensions | 0.0590000x0.0750000x0.1020000 mm |
| Weight | 182 gr |
| Hardware Platform | ZM5202 |
| EAN | 6959174471724 |
| IP Class | IP 20 |
| Voltage | 230V |
| Load | 16A |
| Firmware Version | 00.12 |
| Z-Wave Version | 04.26 |
| Certification ID | ZC10-16010014 |
| Z-Wave Product Id | 0x0118.0x0201.0x0501 |

Supported Command Classes

- Basic
- Sensor Multilevel
- Thermostat Mode
- Thermostat Operating State
- Thermostat Setpoint
- Association Grp Info
- Device Reset Locally
- Zwaveplus Info
- Configuration
- Manufacturer Specific
- Powerlevel
- Firmware Update Md
- Clock
- Association
- Version

Explanation of Z-Wave specific terms

- **Controller** — is a Z-Wave device with capabilities to manage the network. Controllers are typically Gateways, Remote Controls or battery operated wall controllers.
- **Slave** — is a Z-Wave device without capabilities to manage the network. Slaves can be sensors, actuators and even remote controls.
- **Primary Controller** — is the central organizer of the network. It must be a controller. There can be only one primary controller in a Z-Wave network.
- **Inclusion** — is the process of adding new Z-Wave devices into a network.
- **Exclusion** — is the process of removing Z-Wave devices from the network.
- **Association** — is a control relationship between a controlling device and a controlled device.
- **Wakeup Notification** — is a special wireless message issued by a Z-Wave device to announces that is able to communicate.
- **Node Information Frame** — is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.

