

INSTRUCTIONS

NGT-567-0010 Thermostat

Heat Mat
Underfloor Heating

57192D 09/16 - (HKT)

English

INTRODUCTION

The thermostat is an electronic on/off thermostat for temperature control by means of an NTC sensor located either externally or internally within the thermostat. The thermostat is for flush mounting in a wall socket.

IMPORTANT SAFETY INSTRUCTIONS

Warnings



To avoid electric shock, disconnect the heating system power supply at the main panel before carrying out any work on this thermostat and associated components.

Installation must be carried out by qualified personnel in accordance with appropriate statutory regulations (where required by law).

Installation must comply with national and/or local electrical codes.

Cautions



This instruction must be observed, otherwise the liability of the manufacturer shall be voided.

Any changes or modifications made to this thermostat shall void the liability of the manufacturer.

Maximum product lifetime is achieved if the product is not turned off but set at the lowest possible set point / frost protection when heat is not required.

Notice



The language used in the original documentation is English.

Other language versions are a translation of the original documentation.

OJ cannot be held liable for any errors in the documentation. OJ reserves the right to make alterations without prior notice.

Content may vary due to alternative software and/or configurations.

PRODUCT PROGRAMME

Thermostats

NGT-567-0010

(OCD4-1999) Clock-thermostat with 2 sensors. Floor sensor and built-in room sensor.

INSTALLATION

Mounting of sensor

The terminals for the sensor contain a safety extra-low voltage (SELV) circuit, allowing the sensor to be placed as close to the floor surface as necessary without the risk of electric shock, should the sensor cable become damaged.

Sensor cable recommendations

The following recommendations apply to all temperature sensor cables:

The sensor cable may be extended with additional two-core cable (max. sensor extension, see technical specification).

The two wires from the sensor to the thermostat must be kept separate from high voltage wires/cables. Place the sensor cable in a separate conduit or segregate it from power cables in some other way. Never use two vacant wires in a multi-core cable.

Shielded cable does not connect the shield to earth (PE).

Mounting of external floor sensor

Insert the cable and sensor into a non-conductive conduit embedded in the floor.

The end of the conduit must be sealed and the conduit placed as high as possible in the concrete layer.

The floor sensor must be centred between loops of heating cable.

Mounting of thermostat with built-in room sensor

The thermostat must be mounted on the wall approx. 1.4 - 1.6 m above the floor in such a way as to allow free air circulation around it. Draughts and direct sunlight or other heat sources must be avoided.

Opening the thermostat

1. Slide the power button down to Off "0".
2. Release the central front cover ONLY by inserting a small screwdriver alternately into the holes on either side of the thermostat, and then pull the cover off whilst squeezing the top and bottom of the cover. You must not remove the three buttons that are beneath the cover as, once removed, they can not be replaced.

Connections

Ensure that the main and load cables are connected as shown in the figure.

Term. 1: Neutral (N)

Term. 2: Phase (L) 230 V \pm 10%, 50/60 Hz

Term. 3-4: Load, max. 16 A / 3600 W

Term. X: Do not connect

Term. 5-6: External floor sensor

Mounting of thermostat

1. Connect the wires in accordance with the diagram (fig. 2).
2. Mount the thermostat in the wall socket.
3. Fit the frame and carefully press the cover onto the thermostat. Ensure that both the power slide button on the cover and the power switch pin are down.
4. Click the cover into place by applying light, even pressure. **Warning! Do not apply pressure to the corners of the display cover.**

DO NOT open the thermostat by releasing the four fixing clips on the back.

OPERATING THE THERMOSTAT

Initial set up:

The first time the thermostat is powered, or if it has been factory reset, you must choose the following options:

1. Set the time and date
2. Select the sensor application you require
3. Select your floor covering.
4. Select the load of the system in kW

Programming

For full programming instructions please see the user manual.

Fault location

If the sensor is disconnected or short-circuited, the heating system automatically switched off. In this case the sensor should be checked against the resistance table below (fig. 5).

Error codes

E0: Internal error. The thermostat must be replaced.

E1: Built-in sensor short-circuited or disconnected. The thermostat must be replaced.

E2: External sensor short-circuited or disconnected.

E5: Internal overheating. Check the thermostat installation and ensure there is free air movement around it.

MAINTENANCE

The thermostat is maintenance free.

Keep the thermostat's air vents clean and unobstructed at all times.

The thermostat may only be cleaned with a dry cloth.

APPROVAL AND STANDARDS

Regulations

OJ Electronics A/S hereby declares that the product is in conformity with the following directives of the European Parliament:

LVD - Low Voltage Directive

EMC - Electromagnetic Compatibility

RoHS - Restriction of the use of certain

Hazardous Substances

WEEE - Waste Electrical and Electronic Equipment Directive

Applied standards

According to the following standard:

EN 60730-1

EN 60730-2-9

Classification

Protection from electric shock must be assured by appropriate installation. Must be installed according to the requirements of Class II (reinforced insulation).

DISPOSAL AND RECYCLING

Environment and recycling

Protect the environment by disposing of the package in compliance with local regulations for waste processing.

Recycling of obsolete appliances



Equipment containing electrical components must not be disposed of along with domestic waste. It must be separately collected together with electrical and electronic waste in accordance with current local regulations.

TECHNICAL SPECIFICATIONS

Safety

Control pollution degree..... 2
 Software class..... A
 Built-in circuit breaker 2-pole, 16 A
 Enclosure rating..... IP 21
 Overvoltage category III
 Rated impulse voltage..... 4 kV
 Ball pressure temperature (TB)..... 125°C
 SELV limits realised 22 V DC
 Temperature range (ambient)..... +0/+25°C

Supply

Voltage 230 VAC ±10% 50/60 Hz
 Max. pre-fuse 16 A

Output

Output relay..... Make contact - SPST - NO
 Output Max. 16 A / 3600 W

Mounting

Terminal wire size 1.5 - 2.5 mm²
 Method of mounting Must be mounted independently in a wall box in the fixed installation.

Dimensions..... H/81, W/81, D/40 mm
 Build-in depth..... 20 mm
 Sensor type NTC 12kΩ
 Max. sensor extension 3 m / max 30 m

Features

Temperature range +5/+40°C
 Control principle..... PWM/PI
 Purpose and construction of control.....
 Electronic room thermostat for regulating electric under floor heating

Type of action 1.B
 Standby power 0.6 W
 Battery backup 5 years
 Display..... 100x64 pixel STN - white backlit

Patent

EU Registered Design 001101349-0001/2

CONTACT INFORMATION

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Fig. 1

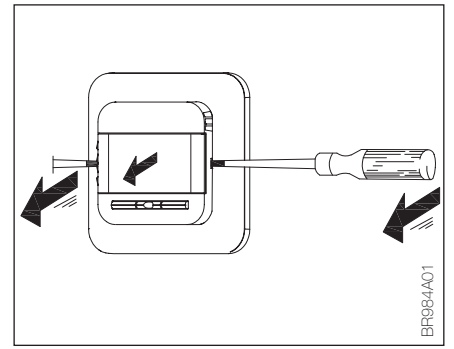


Fig. 2

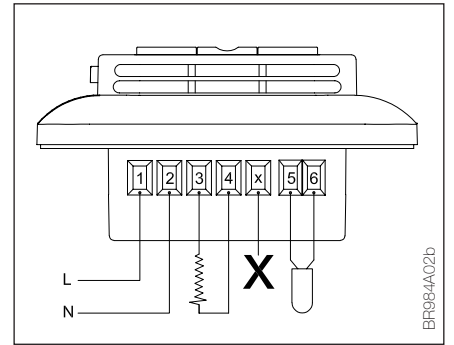


Fig. 3

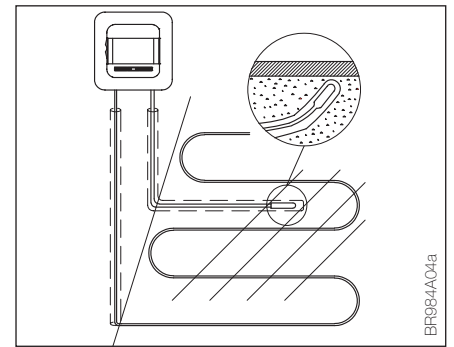


Fig. 4

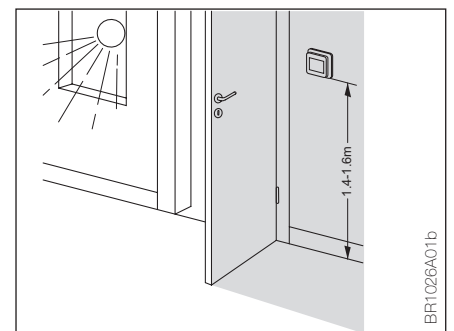


Fig. 5

Sensor	
Temp.(°C)	Value (ohm)
-10	64000
0	38000
10	23300
20	14800
30	9700

The label 'BR929A08' is on the right side of the table.

