

INSTRUCTIONS

Type MCC4/MCD4

67032B 09/16 - (HKT)

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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. A baseplate for external wall mounting is available.

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

Thermostat

MCC4-1991-UA Clock-thermostat incl. floor sensor.

MCC4-1999-UA Clock-thermostat with built-in room sensor.

MCD4-1999-UA 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 front cover ONLY by inserting a small screwdriver into the hole on either side of the thermostat (fig. 1).

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. Please note that the adapter plate is properly clipped on the thermostat.
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

First time settings:

The first time the thermostat is connected, push the power slide button to On "I". Language, time and date must be set using the buttons:

1. Set language
2. Set time
3. Set date

Programming

See user manual.

Fault location

If the sensor is disconnected or short-circuited, the heating system is switched off. The sensor can be checked against the resistance table (fig. 5).

Error codes

E0: Internal error. The thermostat must be replaced.

E1: Built-in sensor short-circuited or disconnected.

E2: External sensor short-circuited or disconnected.

E5: Overheating. The temperature is too high in the thermostat and switch off the heating.

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 $\pm 10\%$ 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/115, W/84, D/40 mm
 Build-in depth..... 20 mm
 Sensor type NTC 12k Ω
 Max. sensor extension3 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
 Stand-by power..... 0.6 W
 Battery backup 5 years
 Display..... 100x64 pixel STN - white backlight

Patent

EU Registered Design 001101349-0001/2

Fig. 1

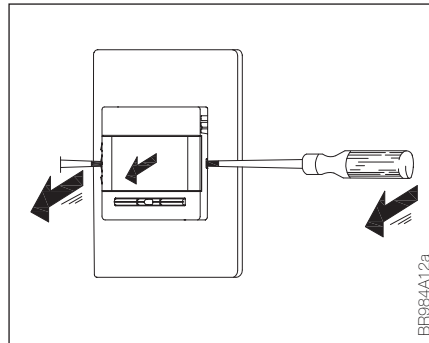
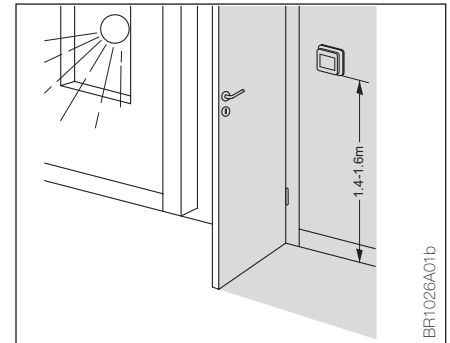


Fig. 4



CONTACT INFORMATION

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Fig. 2

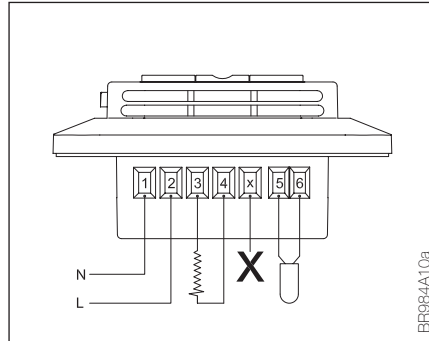
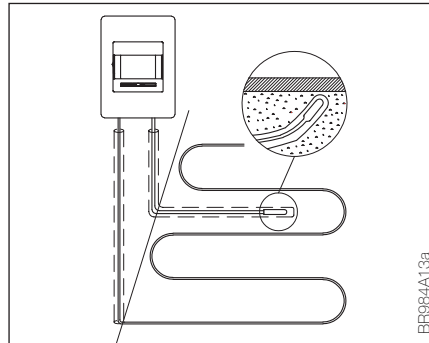


Fig. 5

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

Fig. 3



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