



MCD3-1999-UAE6



67886C 03/22 (MTE)
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INSTRUCTIONS

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Fig. 1

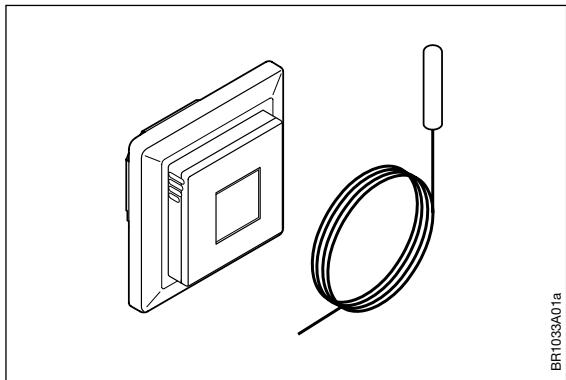


Fig. 2

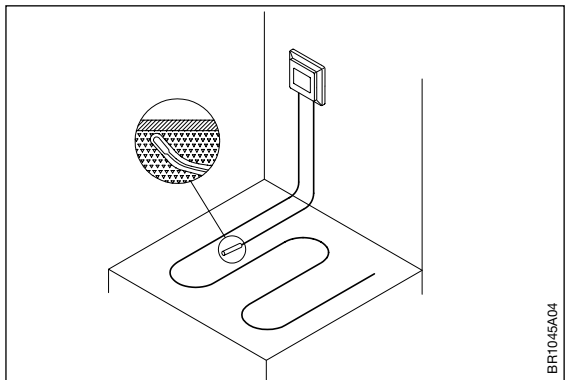


Fig. 3

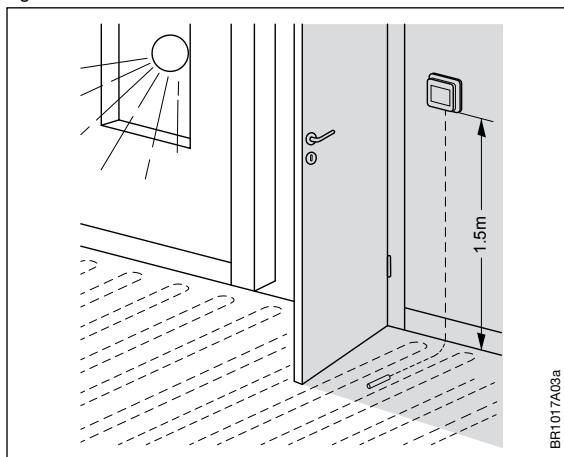


Fig. 4

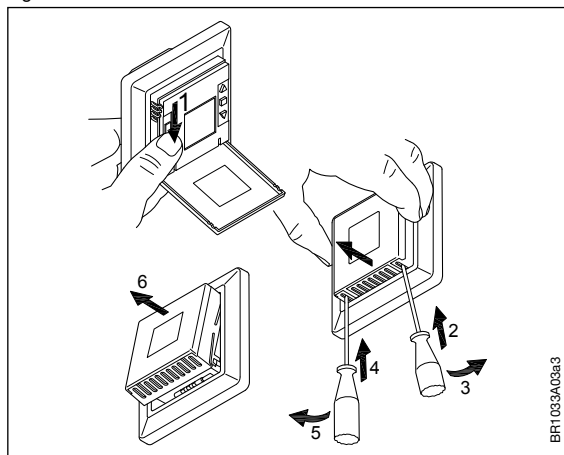


Fig. 5

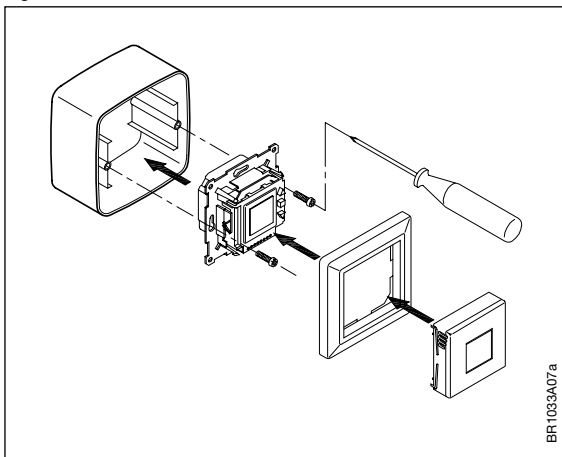
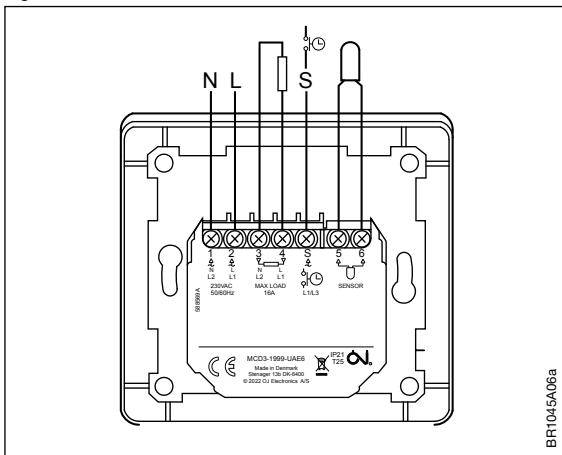


Fig. 6





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*Instructions
English*

INTRODUCTION

The thermostat is an electronic PWM/PI 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 box. A baseplate for wall mounting is also available.

This thermostat can be used as a controller for electric room heating pursuant to EN 50559.

CONTENTS (FIG. 1)

- Thermostat
- Sensor

IMPORTANT SAFETY INSTRUCTIONS



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.

Protection against electric shock must be guaranteed by appropriate mounting. The requirements of Class II are fulfilled after appropriate mounting (reinforced insulation).

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 regulations.

Caution



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 translations of the original documentation.

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

INSTALLING THE SENSOR (FIG. 2)

- Insert the sensor cable 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.
- 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. Ensure that the insulation is undamaged on both the electrical wiring and the floor sensor. Never use two spare wires in a multi-core cable.

PLACEMENT OF THE THERMOSTAT (FIG. 3)

The thermostat should be mounted on the wall approx. 1.5 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 (FIG. 4)

1. Switch off the thermostat
2. Insert a small screwdriver in the bottom right slot of the thermostat.
3. Turn the handle of the screwdriver outwards while gently pulling the right side of the bottom a few millimetres towards you.
4. Insert the small screwdriver into the bottom left of the thermostat.

5. Turn the handle of the screwdriver outwards while gently pulling the bottom left side a few millimetres towards you.
6. When the bottom part of the front is loose, pull the front gently away from the rear part.

MOUNTING THE THERMOSTAT (FIG. 5)

1. Mount the thermostat in the wall box.
2. Ensure that both the power slide button on the cover and the power switch pin in the thermostat are down. Fit the frame and carefully press the cover onto the thermostat - starting with the upper part of the cover, then the lower part of the cover.
3. Click the cover into place by applying light, even pressure.
Warning! Do not apply pressure to the corners of the display cover or to the display itself.

CONNECTIONS (FIG. 6)

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

Terminal 1: Neutral: (N / L2)

Terminal 2: Phase: (L / L1)

Terminal 3: Load: (N / L2) Resistive load only

Terminal 4: Load: (L / L1) Resistive load only

Terminal S: External override*

Terminal 5: Sensor (no polarity)

Terminal 6: Sensor (no polarity)

*Activated by a 230V signal, possibly through an external control, clock or timer connected to the S terminal.

OPERATING THE THERMOSTAT

ON/OFF: To turn the thermostat ON, open the front cover, push the ON/OFF switch up (left side of the thermostat).

Settings: Press "■" for 3 seconds to enter the settings. Use "▲" and "▼" to navigate through the settings. Press "■" and change the value with "▲" or "▼". Press "■" to return to the settings.

Factory reset: Press "■" for 8 seconds to enter the factory reset menu.

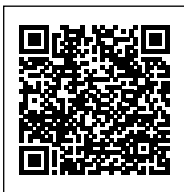
Schedule: Press "▲" and "▼" simultaneously for 3 seconds to enter and change the weekly schedule.

Child lock: Press "▲" and "▼" simultaneously for 8 seconds to lock or unlock the buttons. This can only be done from the main screen.

Manual override: To activate or deactivate manual override, quickly press and release "■". Note: This is indicated with a hand symbol on the main screen when activated. This overwrites the weekly schedule until deactivated again.

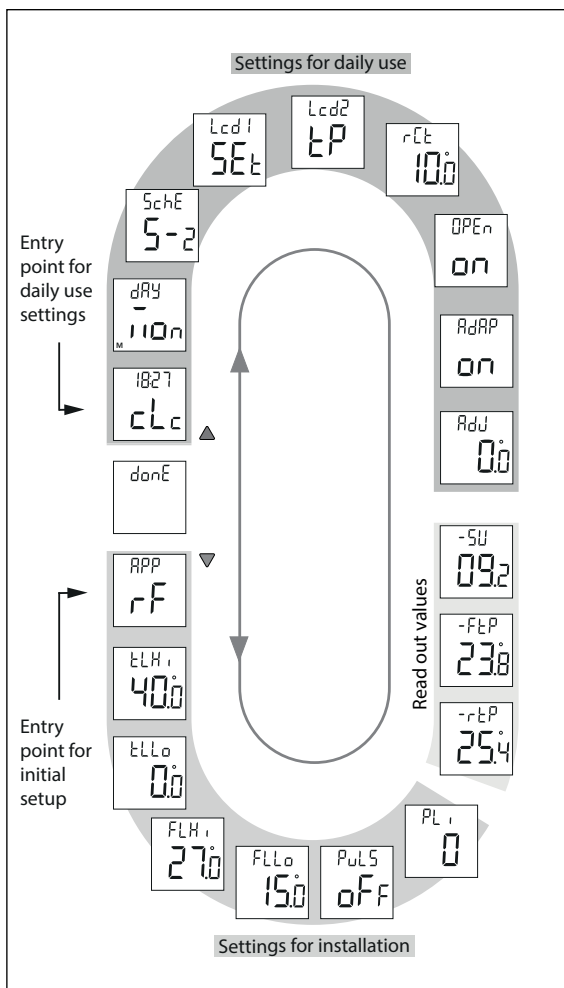
Navigation: "▼" and "▲" are used to adjust the temperature or to navigate through the menu.

You can find the full user manual by scanning the QR code or entering the URL in a browser.



<https://ojelectronics.com/floorheating/products/digital-thermostat-mcd3>

MENU STRUCTURE



Settings	Options		Factory setting
cLc (Clock)	00:00 - 24:00		00:00
dRd (Day)	Mon, TuE, WEd, tHu, Fri, SAT, Sun		Mon
SchE (Schedule)	5-2, 6-1, 1E2, 1E4, 7E4		5-2
Lcd1 (Lcd)	Set, cLc, --		clc
Lcd2 (Lcd)	Set, tP		Set
rEt (Remote controlled temp.)	5°C - 25°C		10°C
Open (Open window)	On/Off		On
RdRP (Adaptivestart)	On/Off		On
RdJ (Adjust)	-9.9°C - +10°C		0°C
-Su (Software Version)	Readout value		Readout value
-FEp (Floor temp.)	Readout value		Readout value
-rEp (Room temp.)	Readout value		Readout value
PLi (Power Limit)	0-30		
PULS (Pulse Width Modulation)	Aut	CYHi: 10-60 CYLo: 10-30	30 15
	Off	DiFF: 0.3°C - 10°C	0.4
	On	CYcL: 10-60	30
FLLo (Floor limit low)	0°C - 40°C		15°C
FLHi (Floor limit high)	0°C - 40°C		27°C
ELLo (Temp. limit low)	0°C - 40°C		0°C
ELHi (Temp. limit high)	0°C - 40°C		40°C
RPP (sensor application)	r	Room	rF
	F	Floor	
	L	Regulator	
	rF	Room w. floor limits	
	rE	External room sensor	
done (Done)			

ERROR AND WARNING CODES

- E0 (E - SE): **Internal Compensation Sensor Error** - Internal fault. The thermostat must be replaced.
- E1 (I - SE): **Internal Sensor Error** - Built-in sensor defective or short-circuited. Replace the thermostat, or use the floor sensor only.
- E2 (E - SE): **External Sensor Error** - External sensor disconnected, defective or short-circuited. Reconnect the sensor if disconnected, or replace the sensor.
- E5 (I - OH): **Internal OverHeat** - Internal temperature limit exceeded. Inspect the installation.

MAINTENANCE

The thermostat is maintenance free.

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

The thermostat must only be cleaned with a dry cloth.

APPROVALS 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

ECO Design - Environmentally friendly design

Applied standards and approvals

According to the following standard:

CE: EN 60730-1, EN 60730-2-9

UKCA: BS 60730-1, BS 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).

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 along with domestic waste.

It must be separately collected together with electrical and electronic waste in accordance with current local regulations.

TECHNICAL SPECIFICATIONS

Purpose of control	Electrical underfloor heating
Mounting method	Flush or surface mounted
Supply voltage	230-240VAC, 50/60 Hz
Max. pre-fuse	16 A
Built-in circuit breaker	2-pole, 16 A
Enclosure rating	IP 21
Wire size, terminals	Current \leq 13 A - 1.5 mm ² , solid core wire Current $>$ 13 A to 16 A - 2.5 mm ² , solid core wire
Output relay	Max. 16 A / AC 230V
Output, load	Max. 16 A / 3600 W
Control principle	PWM/PI*
Standby consumption	\leq 0.75 W
Dimensions	84mm (H), 84mm (W), 40mm (D) Installation depth $<$ 20mm Weight \leq 150 g
Display	21 x 21mm LCD
Control pollution degree	2
Oversvoltage category	III
Type of action	1.B
Software class	A
Rated impulse voltage	4kV
Ball pressure temperature (TB)	125°C
EU registered design	DM/089 338

*Advanced control without any hysteresis.

