

INSTRUCTIONS

Type MCS4/OCS4-10

67022D 07/16 (LOA)



MCS4-10

OCS4-10

English

CENTRAL CONTROLLER, CS4™

Comfort System4™ is a complete control system for electric heating in your house.

The Central Controller is the master thermostat, which controls and monitors all the thermostats and relay modules in the different rooms, up to 32 rooms. All thermostats and relay modules in the Comfort System4™ are programmed from the Central Controller.

You can group the units in the house with up to 5 different time schedules from the Central Controller. The time schedules are pre-programmed for easy Plug & Go installation.

The Central Controller features a built-in room sensor and is supplied with a floor sensor for controlling the floor heating in the room concerned.

PRODUCT PROGRAMME

MCS4/OCS4-10 Central Controller with built-in room sensor, incl. floor sensor

WARNING – Important Safety Instructions

Disconnect the power supply before carrying out any installation or maintenance work on this unit and associated components. This unit and associated components should only be installed by a competent person (i.e. a qualified electrician). Electrical installation must be in accordance with appropriate statutory regulations.

INSTALLING THE CENTRAL CONTROLLER

The unit is designed for flush mounting in a wall socket. A baseplate for external wall mounting is available.

Fig. 1:

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. 2 + 2a:

3. Connect the wires in accordance with the diagram.
4. Mount the thermostat in the wall socket. Please ensure that the adapter plate is properly clipped on the thermostat.
5. 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.

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

MOUNTING OF SENSOR

The terminals for the sensors contain a safety extra-low voltage (SELV) circuit, allowing the sensors 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 sensor cable may be extended up to 30 m by means of a separate two-core cable.
- The two wires from the sensor to the thermostat must be kept separate from high voltage wires/cables. Place the cable in a separate pipe or segregate it from power cables in some other way. Never use two vacant wires in a multi-core cable.
- Shielded cable: Do not connect the shield to earth (PE).

Fig. 3: Mounting of floor sensor

The floor sensor is used for comfort temperature regulation in rooms on the basis of floor temperature. It is recommended that the cable and sensor be placed in a non-conductive installation pipe embedded in the floor. The end of the pipe must be sealed and the pipe placed as high as possible in the concrete layer. The floor sensor must be centred between loops of heating cable.

PLACING THE THERMOSTAT.

The room sensor is used for comfort temperature regulation in rooms.

Fig. 4:

The thermostat should be mounted on the wall approx. 1.6 m above the floor in such a way as to allow free air circulation around it. The thermostat must never be covered by a curtain or similar. Draughts and direct sunlight or other heat sources must be avoided.

Fig. 4a:

Observe the minimum distance of 0,5m, from large metal surfaces, electronic equipment, electric motors, etc.

Fig. 4b:

To ensure good wireless transmission without interference, *all wireless units* in the Comfort System CS4™ should always be placed with min. 1,0m between them.

SETUP CENTRAL CONTROLLER

The first time you switch the power interrupter to ON "I", basic settings must be set. The menu will automatically guide you through the process.

1. Choose "language", "time" and "date" with the up and down buttons and confirm with **OK**.
2. "Please select schedule for this thermostat"
Name the time schedule with a specific name from the list called "Zone" and confirm with **OK**.
3. "Please activate thermostats for connection"
You can now connect the thermostats/relay modules in the system to the Central Controller. Confirm with **OK**.

PROGRAMMING

See user manual for CS4™ for further options and how to plan your system.

FIG.5: SENSOR RESISTANCE

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

ERROR CODES / STATUS

- E0: Internal error. The unit must be replaced.
E1: Built-in sensor fault.
E2: External sensor fault.
E5: Internal overheating. Inspect the installation.

E6: Communication error.

E8: Wrong application in the thermostat or the time schedule.

CERTIFICATION

OJ Electronics A/S hereby declares that the product conforms with the following Directives of the European Parliament and of the Council:



LVD, EMC, R&TTE, RoHS and WEEE

Applied standards

Please see the document "EC DECLARATION OF CONFORMITY" in the back.

CLASSIFICATION

The product is a Class II device (on front after appropriate mounting in a flush box) and must be connected in the following way:

- 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. S: Fil Pilot input, 230 V
Term. 5-6: External floor sensor

ENVIRONMENT AND RECYCLING

Please help us to protect the environment by disposing of the packaging in accordance with national regulations for waste processing.

RECYCLING OF OBSOLETE APPLIANCES



Appliances with this label must not be disposed of with general household waste. They must be collected separately and disposed of in compliance with local regulations.

TECHNICAL DATA

Voltage 230 V AC $\pm 10\%$ 50 Hz
Max. pre-fuse 16 A
Output relay Make contact - SPST - NO
Output Max. 16 A / 3600 W
Fil Pilot input 230 V
Control principle PWM/PI
Stand-by power 1 W
RF frequency band 868.3 Mhz
RF transmission range 100 metres/open field
Battery backup 5 years
Temperature range $+5/+40\text{ }^{\circ}\text{C}$
Limit sensor $+5/+40\text{ }^{\circ}\text{C}$
Ambient operating temperature $+0/+25\text{ }^{\circ}\text{C}$
Energy readout, accuracy 2 %
Sensor input type SELV
Pollution degree 2
Overvoltage Cat. II
Rated impulse voltage 4 kV
Enclosure rating IP 21*
Dimensions, MCS4 H/115, W/84, D/40 mm
Dimensions, OCS4 H/81, W/81, D/40 mm
Mounting depth 20 mm
Display. 100x64 pixel STN - white backlighting
EU Registered Design 001534462-0001/2
Automatic action type 1

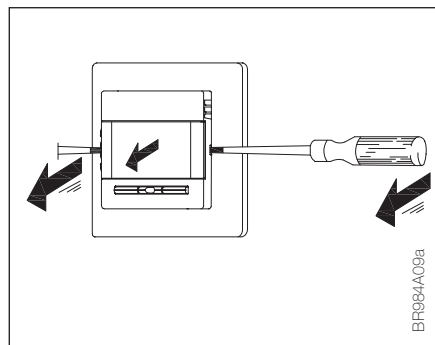
* IP 21 applies only to front with cover after mounting in a flush box

The Central Controller is maintenance free.

OJ ELECTRONICS A/S

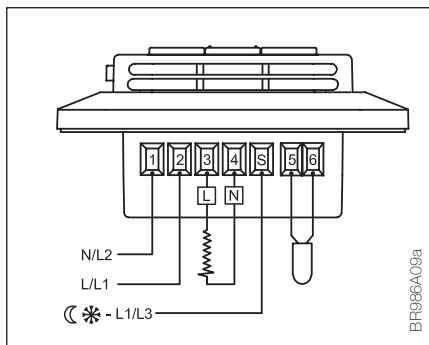
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Fig. 1



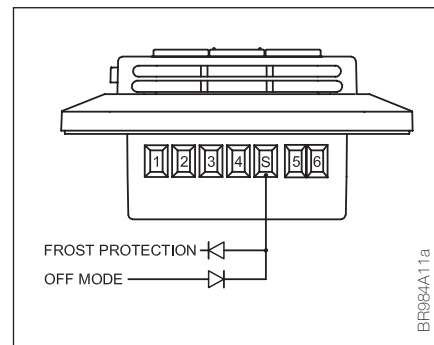
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Fig. 2



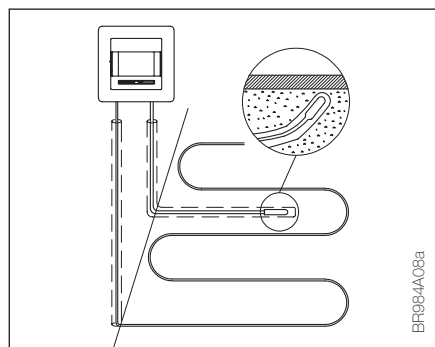
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Fig. 2a



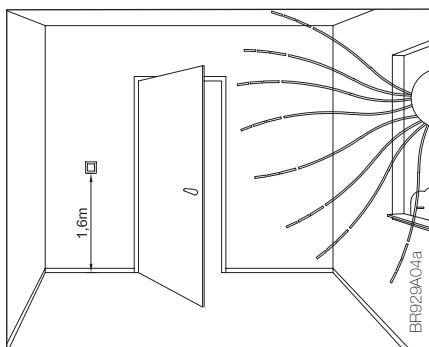
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Fig. 3



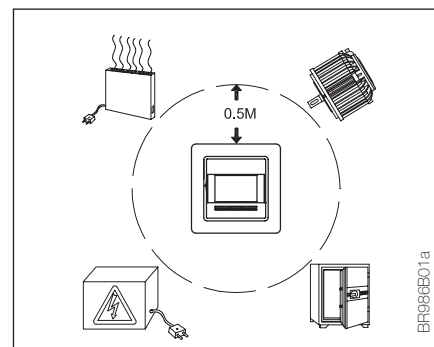
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Fig. 4



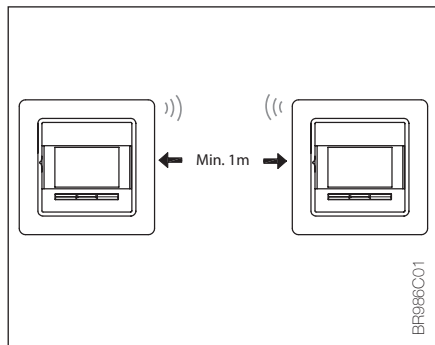
BR929A04a

Fig. 4a



BR986B01a

Fig. 4b



BR986C01

Fig. 5

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

BR929A08

EC DECLARATION OF CONFORMITY

en

No.: 0987

The undersigned, representing the following manufacturer

Manufacturer: OJ ELECTRONICS A/S

Address: Stenager 13B, 6400 Soenderborg, Denmark, tlf. (+45) 7312 1314.

Herewith declares that the product

Product identification: Control, temperature sensing

OCS4-10, MCS4-10

Central Control Unit

OSC4/OSD4, MSC4/MSD4

Satellite Unit

OSA4-10, MSA4-10

Relay Point Unit

Is in conformity with the provisions of the following EC directive(s)

(including all applicable amendments)

Reference n°	Title
2004/108/EC	EMC DIRECTIVE The European parliament and of the council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC.
2006/95/EC	LOW VOLTAGE DIRECTIVE Council Directive 2006/95/EC of 12 December 2006 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits
1999/5/EEC	R&TTE DIRECTIVE Directive of 9 March 1999 of the European Parliament and of the Council on Radio Equipment and Telecommunications Terminal Equipment and the mutual recognition of their conformity

Harmonized standards

N°	Issue	N°	Issue
EN 60730-1	2011	EN 300 220-2	V2.4.1
EN 60730-2-9	2010	EN 300 220-1	V2.1.1
		EN 301 489-3	V1.4.1
		EN 301 489-1	V1.8.1
		EN 62479	2010

Testing was carried out by the VDE Prüf- und Zertifizierungsinstitut.

Soenderborg, date 04/07/2013

Palle Jensen
(signature) OJ ELECTRONICS