

# INSTRUCTIONS

## Type OSD4-1999



67025D 07/16 (LOA)



### English

#### CS4™ THERMOSTAT

A wireless, radio controlled thermostat recommended for Comfort System 4. The thermostat is ideal for all floor types and controls the heating on the basis of room, floor or room/floor limit temperature. Wireless communication to the central controller ensures easy installation.

#### PRODUCT PROGRAMME

OSD4-1999 Radio controlled thermostat with built-in room sensor and 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 THERMOSTAT

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

##### Fig. 1:

- Slide the power button down to Off "0".
- Release the front cover ONLY by inserting a small screwdriver into the hole on either side of the thermostat.

##### Fig. 2 + 2a:

- Connect the wires in accordance with the diagram.
- Mount the thermostat in the wall socket.
- 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 thermostat 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.

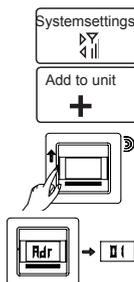
##### Fig. 4b:

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.

#### QUICK SETUP

Quick guide to thermostat setup:

- Activate the Central Controller. Go to Menu/System settings.
- Select Add unit.
- Activate the thermostat. The address will be displayed.
- Select time schedule in the menu of the central controller. You need to name the time schedules from the list (zone-names). You can max. have 5 time schedules in the system.



#### 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 short-circuited or disconnected.
- E2: External sensor short-circuited or disconnected.
- E5: Internal overheating. Inspect the installation.
- E8: Wrong application in the thermostat or the time schedule.
- ▽ Communication error. No connection to the central controller - The thermostat will switch to manual mode.



The aerial strength to the Central Controller is displayed in 1 to 4 bars. 4=Full signal, 1=very low signal.

#### FACTORY RESET

Allows factory settings to be restored. Your personal settings will be lost for this thermostat, and the connection to the central controller will be interrupted.

- Press and hold the middle button until the display stops flashing and the manual symbol

is shown (after 10 seconds).

- The factory settings are now restored and the thermostat is in manual mode.
- Turn the thermostat OFF and back ON to reconnect to the Central Controller.

#### 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 (enhanced insulation) and must be connected in the following way:

- Term. 1: Neutral (N)
- Term. 2: Phase (L) 230 V ±10 %, 50/60 Hz
- Term. 3-4: Load, max. 16 A / 3600 W
- Term. X: Do not connect
- 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 ±10 % 50 Hz
Max. pre-fuse	16 A
Built-in circuit breaker	2-pole, 16 A
Output relay	Make contact - SPST - NO
Output	Max. 16 A / 3600
Control principle	PWM/PI
Stand-by power	1 W
RF frequency band	868.3 Mhz
RF transmission range	100 metres/open field
Temperature range	+5/+40 °C
Limit sensor	+5/+40 °C
Ambient operating temperature	+0/+25 °C
Sensor input type	SELV
Pollution degree	2
Overvoltage	Cat. II
Rated impulse voltage	4 kV
Enclosure rating	IP 21*
Dimensions	H/81, W/81, D/40 mm
Mounting depth	20 mm
Display	H/25, W/48 mm, segment
EU Registered Design	001534462-0001/2
According to EN 60730-1:2011	
Automatic action type	1

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

The thermostat is maintenance free.

#### OJ ELECTRONICS A/S

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Fig. 1

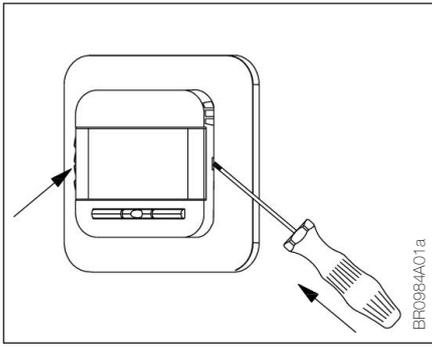


Fig. 2

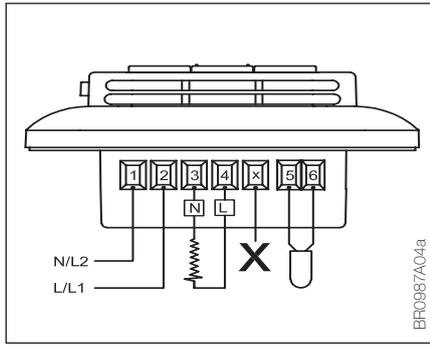


Fig. 3

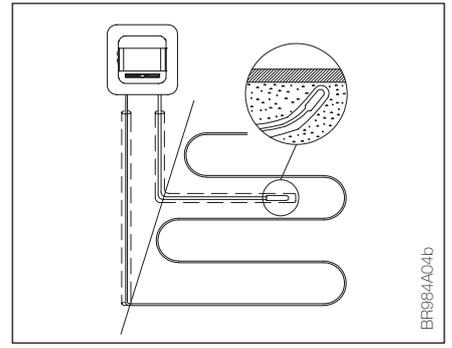


Fig. 4

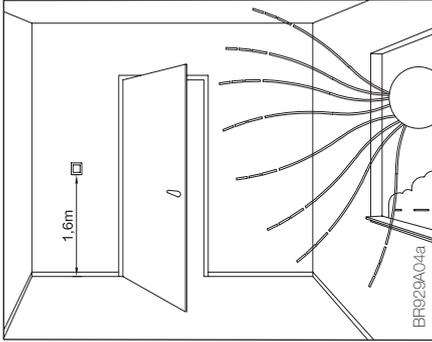


Fig. 4a

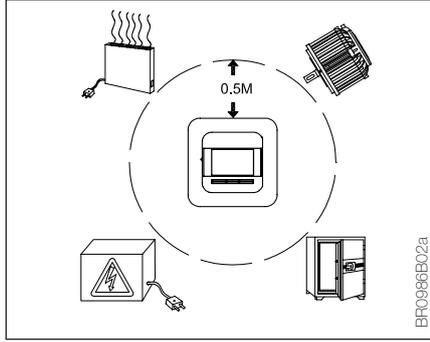
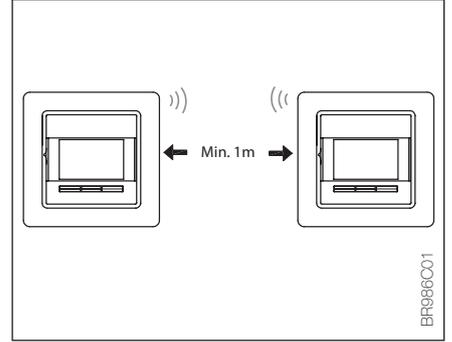


Fig. 4b



**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

<b>Product identification: Control, temperature sensing</b>	
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*  
OJ ELECTRONICS  
(signature)

Fig. 5

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