

# INSTRUCTIONS

## Type OCS4-10

67022B 09/11 - (MBC)



- English
- Русский
- Portuguese

### English

#### CS4™ CENTRAL CONTROLLER

A central control unit with built-in wireless transceiver for complete home heating management. Capable of controlling up to 16 rooms in 5 different zones using OSD4 Thermostats for underfloor heating and OSA4 Panel Heater Controller for heating panels. Pre-programmed for easy Plug & Go installation.

The central control unit features a built-in room sensor and is supplied with a floor sensor for controlling the floor heating in the room concerned.

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

#### PRODUCT PROGRAMME

OCS4-10 Central Controller with build-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.

#### MOUNTING OF SENSOR

The floor sensor contains a safety extra-low voltage (SELV) circuit, allowing it to be placed as close to the floor surface as possible without having to take account of the risk of shock should the sensor cable become damaged.

The two wires connecting the sensor to the mounting box must be additionally insulated, e.g. shrink flex.

To prevent loose wires in the fixed installation from coming into contact with the terminal block for the floor sensor, they must be re-strained using cable ties.

It is recommended that the cable and sensor be placed in a non-conductive installation pipe embedded in the floor (fig. 3). The end of the pipe must be sealed and the pipe placed as high as possible in the concrete layer. Alternatively, the sensor can be embedded directly in the floor. The sensor cable must be led through a separate pipe or segregated from power cables. The floor sensor must be centred between loops of heating cable.

The sensor cable may be extended up to 100 m by means of a separate two-core cable. Two vacant wires in a multi-core cable used, for

example, to supply current to the floor heating cable must not be used. The switching peaks of such current supply lines may create interference signals that prevent optimum controller function. If a shielded cable is used, the shield must not be connected to earth (PE). The two-core cable must be placed in a separate pipe or segregated from power cables.

#### MOUNTING OF CENTRAL CONTROLLER WITH BUILT-IN SENSOR

The room sensor is used for comfort temperature regulation in rooms. The Central Controller 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. Observe the minimum distance from large metal surfaces, electronic equipment, electric motors, etc. (fig. 4a). To ensure good transmission, the unit should be placed as high as possible, min. 50 cm above the floor (fig. 4b). Draughts and direct sunlight or other heat sources must be avoided (fig. 4).

#### Installing the central controller

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)
3. Connect the wires in accordance with the diagram (fig. 2).
4. Mount the thermostat in the wall socket.
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.

#### First time settings:

The first time the Central Controller is connected, push the power slide button to On "I". Language, time and date must be set using the buttons. Let the central controller guide you easily through:

- Language
- Time
- Date
- Zone selection
- Thermostat connection

#### 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 Central Controller must be replaced.
- E1: Built-in sensor short-circuited or disconnected.
- E2: External sensor short-circuited or disconnected.
- E5: Internal overheating. Inspect the installation.
- E6: Communication error.

#### CE MARKING

According to the following directives:  
LVD 2006/95/EC, EMC 2004/108/EC,  
R&TTE 1999/5/EC.



#### 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°C
Limit sensor .....	+5/+40°C
Ambient operating temperature .....	+0/+25°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 .....	H/81, W/81, D/40 mm
Mounting depth .....	20 mm
Display .....	100x64 pixel STN - white backlighting
EU Registered Design .....	001534462-0001/2
According to EN 60730-1:2009	
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

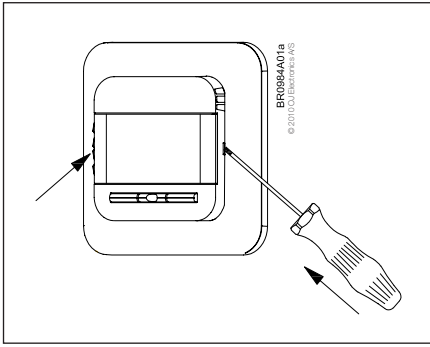


Fig. 2

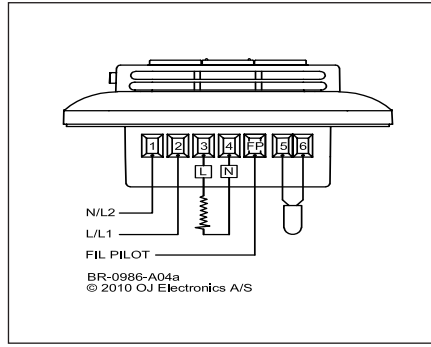


Fig. 2a

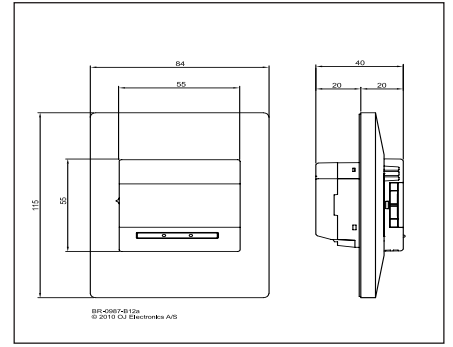


Fig. 3

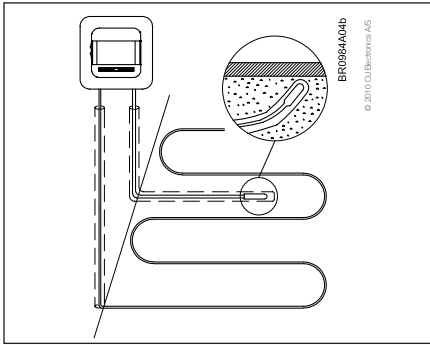


Fig. 4

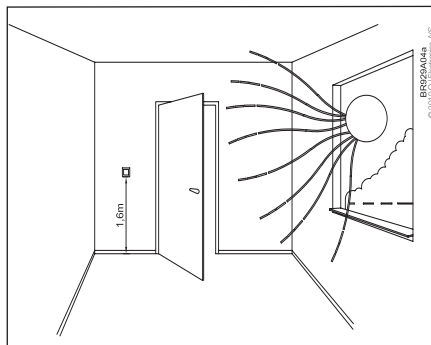


Fig. 4a

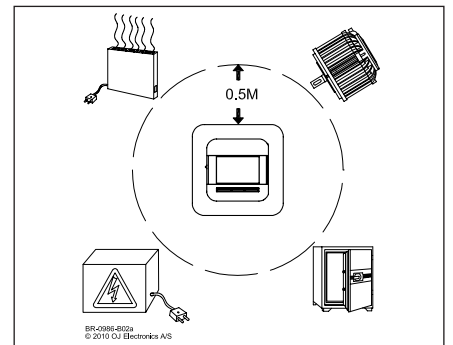
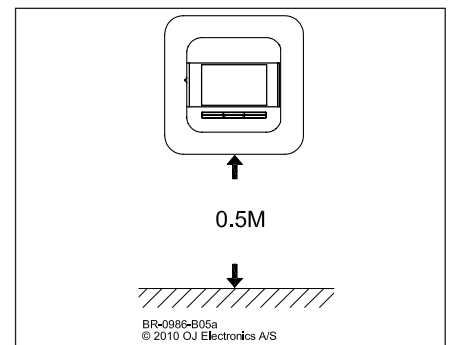


Fig. 4b



**EC DECLARATION OF CONFORMITY**  
No.: 0987

**en**

**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	2000	EN 300 220-2	V2.1.2
EN 60730-2-9	2002	EN 300 220-1	V2.1.1
		EN 301 489-3	V1.4.1
		EN 301 489-1	V1.8.1
		EN 50371	2002

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

Soenderborg, date 29/11/2010

(signature)

Approval Manager: Palle Jensen of the signatory empowered to bind OJ ELECTRONICS A/S



Fig. 5

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

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