

ENGINEERING
TOMORROW

Danfoss



CET2000B-RF + RX1-S + CS2

Wireless Electronic Hot Water Cylinder Thermostat

Danfoss Heating

Installation Guide

For a large print version of these instructions please call Marketing on 0845 121 7400.

Hearby, Danfoss A/S declares that the radio equipment type CET2000B-RF + RX1-S is in compliance with directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address, http://heating.danfoss.co.uk/xdoccat/14_CATC-J_MNU17497125_SIT313.html

This product complies with the following EU Directives:
Electromagnetic Compatibility
2014/30/EU
Low Voltage
2014/35/EU
Restriction of the use of certain Hazardous Substances
2011/65/EU
Radio Equipment
2014/53/EU



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Product Specifications

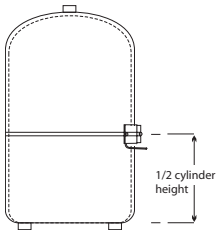
	CET2000B-RF	RX1-S
Operating Voltage	2.5 – 3 VDC (2xAA alkaline batteries)	230Vac 50Hz
Output Relay	-	1 x SPDT Type 1B
Switch rating	-	3A (1) at 230Vac
Output	-	Volt free
Setting temp. range	40-65°C	-
Maximum ambient temp.	0-45°C	
Battery lifetime	2 years	-
Max. range	30 metres	
Operating frequency	433.92MHz <1mW ERP	
IP Rating	IP20	IP40
Control	On-Off	
Operating mode	Domestic Hot Water Heating	
Construction	EN 60730-2-9	EN 60730-1
Control pollution situation	Degree 2	
Rated impulse voltage	-	2.5kV
Ball pressure test	75°C	
Dimensions	H84 x W84 x D35	H84 x W84 x D28
Software classification	A	

Important note RF products: Ensure that there are no large metal objects, such as boiler cases or other large appliances, in line of sight between the transmitter and receiver as these will prevent communication between thermostat and receiver.

Installation

- ! ***This product should only be installed by a qualified electrician or competent heating installer, and must be in accordance with local wiring regulations.***

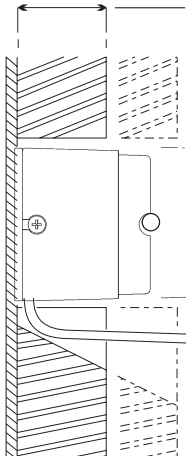
1. The clamp on sensor should be mounted onto the cylinder wall at a height equivalent to $\frac{1}{2}$ the height of the cylinder. Care should be taken to remove any insulation material from the cylinder and to ensure that the copper surface of the cylinder is clean. See diagram opposite for details.



2. Before attaching the sensor to the cylinder using the strap provided, connect a 2-core cable to the sensor to allow interconnection to the thermostat setting unit.
3. Apply the contact paste provided to the part of the sensor in contact with the cylinder and clamp the sensor to the cylinder wall.

A spacer piece is provided for use with cylinders that have thick insulation (see page 6).

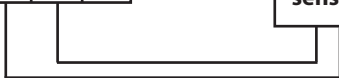
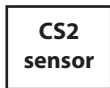
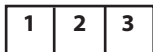
4. Mount the thermostat wallplate on to a wall next to the cylinder. Connect the cable from the sensor to terminals 1 & 2 of the wallplate (see wiring diagram on page 7).
5. Now mount the thermostat setting unit onto the wallplate (see diagrams on page 9).



For insulation thicker than 25mm and up to 55mm thick, use the extra cover supplied as a spacer to ensure that the sensor is held in firm contact with the cylinder wall.

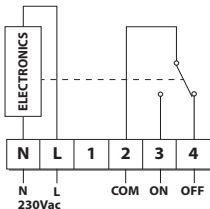
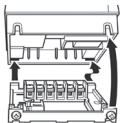
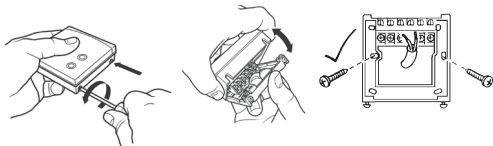
Sensor Wiring

CET2000B-RF



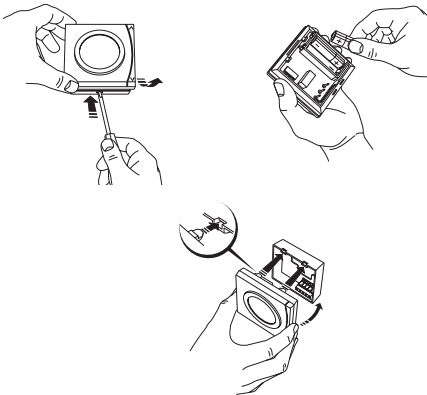
Cable specification: minimum cross section 0.5mm²

Installation - RX1-S Receiver unit

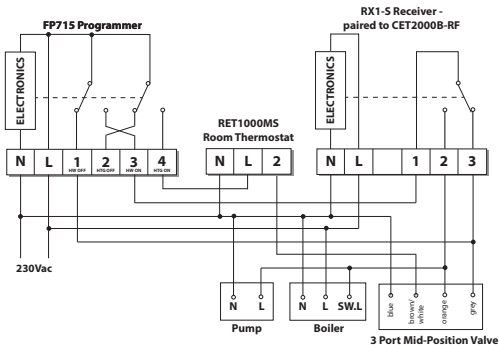


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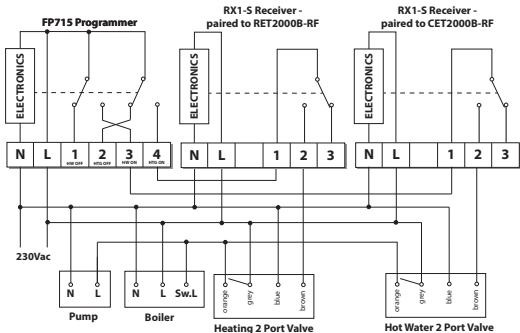
Mounting - CET2000B-RF



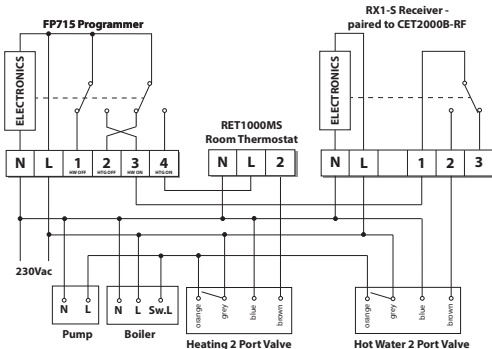
Hard Wired Heating with Wireless Hot Water Control, 3 Port Mid-Position Valve



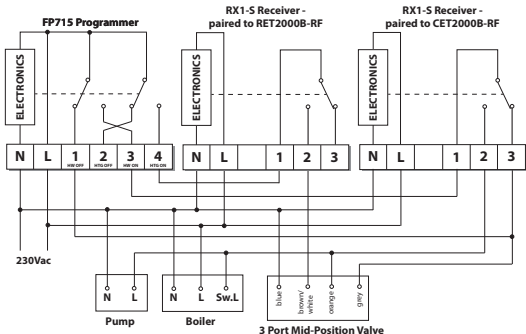
Wireless Heating and Hot Water Control, using 2 x 2 Port Valves



Hard Wired Heating with Wireless Hot Water Control, 2 x 2 Port Valves



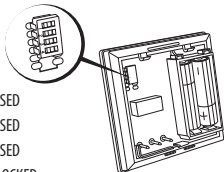
Wireless Heating & Hot Water Control, with 3 Port Mid Position Valve



Key Lock

Slide the DIL switches to the settings required.

NOT USED		1	NOT USED
NOT USED		2	NOT USED
NOT USED		3	NOT USED
KEYS UNLOCKED		4	KEYS LOCKED



To avoid unwanted tampering of the required hot water temperature the CET2000B-RF includes a key lock feature which disables the Λ and V buttons.

First set the required hot water temperature using the Λ or V button. Then slide internal DIL switch 4 to the locked position and mount the CET2000B-RF back on its wallplate (as shown on page 9).

Commissioning

If the thermostat CET2000B-RF and receiver RX1-S have been supplied together in a combined pack, the units have been paired in the factory and no commissioning is required. If the thermostat and receiver have been supplied separately follow the steps below to pair the devices.

Step 1 RX1-S - Ensure RX1-S is wired in accordance with instructions on page 8.

Step 2 CET2000B-RF - Insert 2xAA alkaline batteries. If the CET2000B-RF is not already paired to the RX1-S it will enter it's learning mode shown by the flashing aerial icon.

Step 3 RX1-S - Press and hold down both the PROG and CH buttons. The PROG LED will light for 1 second when it has paired with the CET2000B-RF. Release buttons

A steady aerial icon on CET2000B-RF confirms that the devices are now paired and ready for control of your domestic hot water system.

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The Danfoss logo is a black rectangle containing the word "Danfoss" in a white, elegant, cursive script font.

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