



Installation and operation Wireless floorheating controller and room thermostat, type CF

Temperature setting

Set room temperature on the thermostat dial. On the right-hand side of the thermostat is a **function switch** with 3 possible settings:

Sun: The room temperature will be as set on the thermostat.

Clock: Used only if the zone regulator is engaged. The temperature will be as set on the room thermostat, but in accordance with the consumption pattern entered.

The consumption pattern in the zone regulator can be overridden by moving the switch to sun or moon.

Moon: The room temperature will be as set on the thermostat - minus 5°C.

Limitation of the setting range

Behind the button for temperature setting are two lock-pins. These can be placed in the setting knob as shown in fig. 4 if the thermostat setting range is to be narrowed.

Putting into operation

Each room thermostat has a unique ID number preventing conflicts with other thermostats. A single room thermostat is capable of regulating several heating outputs, provided these outputs are assigned to the thermostat.

Assigning thermostats to output(s)

-The installation cable between room thermostat and CFM (fig. 2) must be connected in assigning each thermostat to the respective output(s).

-In the LED array the first available output will flash. The LED in the CFR will also flash. Outputs already assigned will not be lit (fig. 2). By pressing OK the thermostat will be assigned to that output. If the room thermostat is to be assigned under another lit output, scroll to the output by means of the +/- keys, then press OK.

-When the installation cable is removed, the red LED behind the front panel (fig. 4) will flash for at least 4 minutes. See "Test of room thermostat"

Removal of assigned thermostat

-It is not necessary to have the installation cable in place when removing an assigned thermostat. Once a thermostat has been removed, it may be reassigned to another output.

-Removal of room thermostat is done by pressing OK for 5 seconds, then the entire LED array will be lit. Scroll to the specific room thermostat to be removed with the +/- button, and press OK for 5 seconds. The thermostat has now been removed.

Test of room thermostat

If a defect in a room thermostat is suspected, the following test may be carried out:

- Set the thermostat to the highest temperature.

- Move the function switch on the side of the room thermostat to a new position.

- If the LED behind the front panel (fig. 4) flashes quickly for 4 minutes, the room thermostat is OK.

Battery change

If the battery is getting low, the LED will flash 6 times every 6 seconds. See fig. 4.

Master regulator CFM

This regulator governs the individual heat circuits via wireless communication with the associated room thermostats. Connection of 8 heat circuits is enabled.

If more heat circuits are required, connect one or max. two **slave regulators CFS**, each with connection for 8 circuits. This allows max. 24 heat circuits to be governed.

The master/slave is to be fitted immediately above the distributor pipe on the wall or in a distribution cabinet. Easy access to plugs and terminals should be ensured. See instruction drawing on the opposite page.

If two slave regulators are connected, move the jumper in "slave 2" to position 2. See instruction drawing.

The connection cable for the slave regulator is 1 m. Cable lengths of up to 100 m are enabled (available from your electrical items wholesaler)

Alarm

There are 2 options with respect to alarms given by the master regulator:

-Integral acoustic signal can be selected by moving the jumper marked "buzzer" from OFF to ON. See installation drawing.

-External alarm generator can be connected to the output marked \square .

Technical data

Max. ambient temperature 60°C.

Enclosure IP40

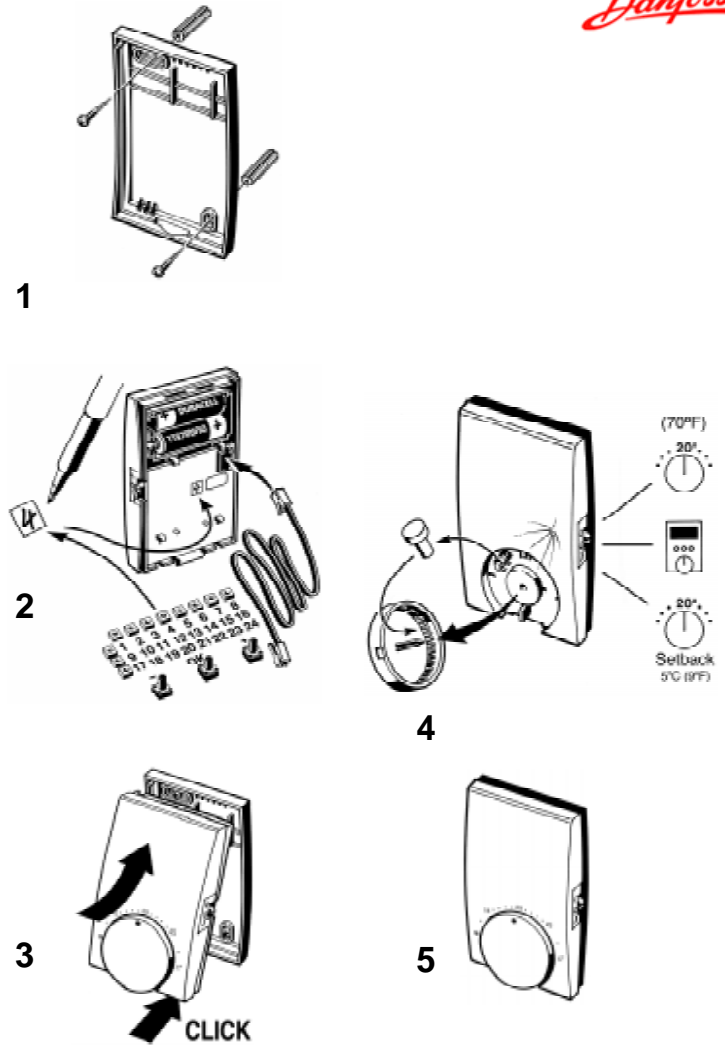
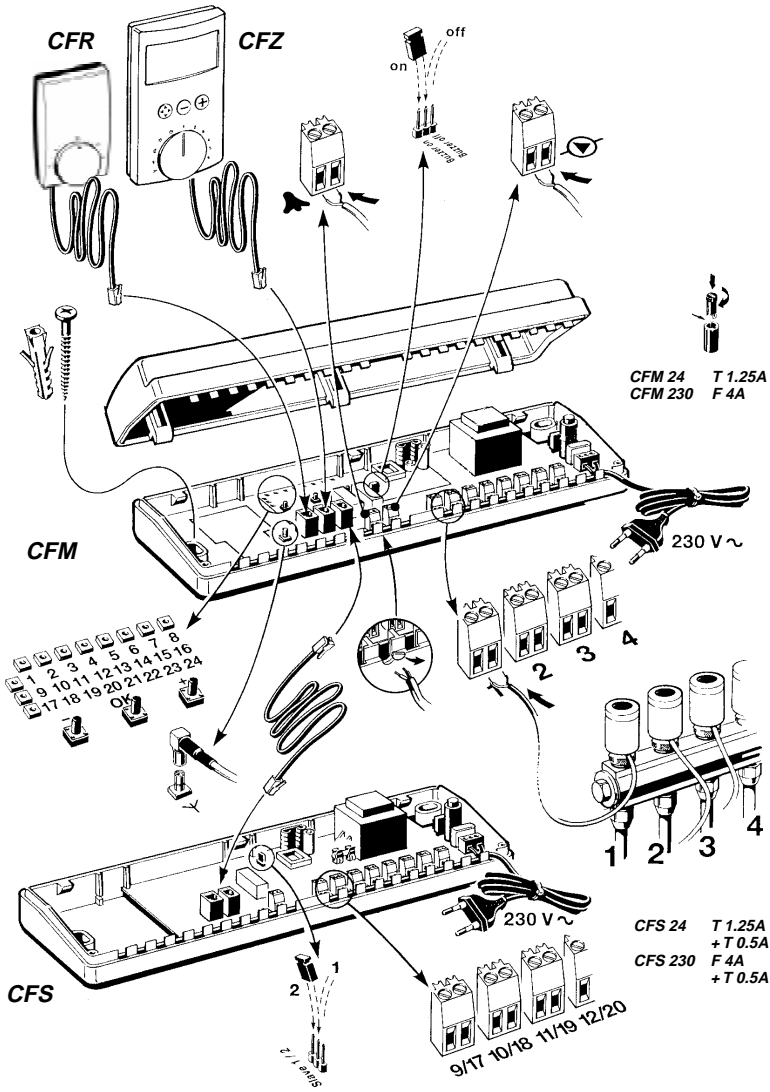
Zone regulator CFZ

The zone regulator governs a maximum of 6 heat zones. For each heat zone, individual timing programmes can be connected. For reading and operating convenience, it is recommended to place the regulator at eye height.

The connection cable is 5 m. Cable lengths up to 100 m are permitted (available from your electrical items supplier).

Troubleshooting

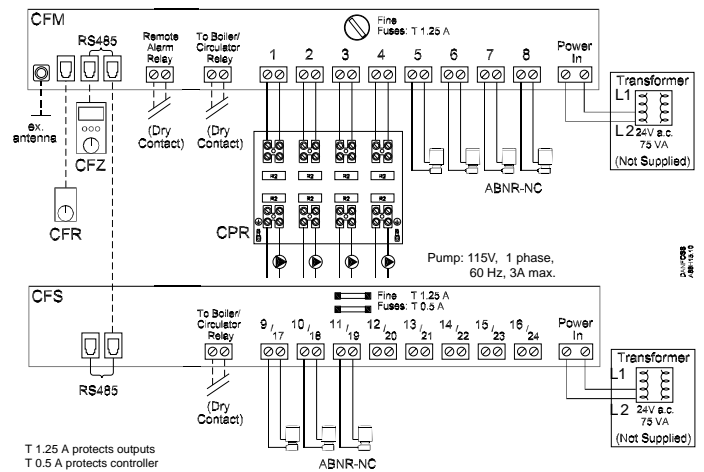
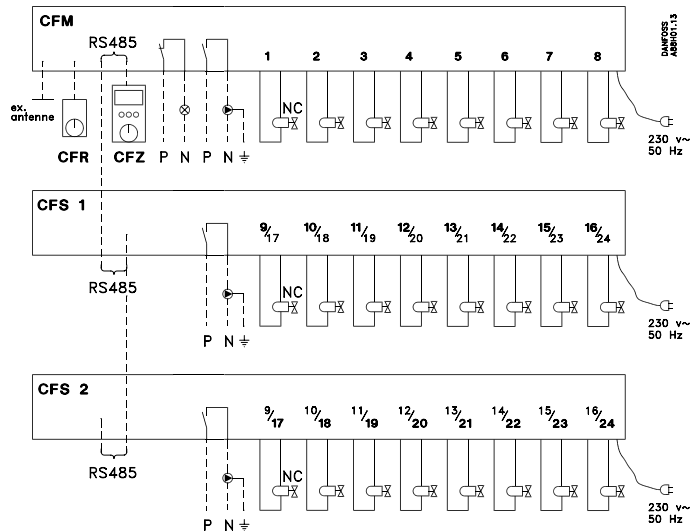
Appearance	Problem	Reason/cause	Solution	Comments
CFM controller output array blinks specifically from a row and column(s)	Lack or excessive heat to floor heating system	Distance between room and master is too far. Degradation of signal due to reinforced concrete or foil faced insulation between floors. External antenna mounted close to metal parts or wires.	Reposition thermostat in room until signal is clear. Reposition external antenna, however if signal is still unclear move external antenna to the same floor as thermostat(s) Reposition room thermostat and run test mode	If signal is continuously poor contact Danfoss
Alarm symbol in zone controller, CFZ flashes		Master control is placed in metal enclosure. Interference from electronic equipment using the same frequency, 433.92Mhz (i.e. baby monitors, portable or wireless headphones)	Mount external antenna if not already installed. Eliminate interfering electronic equipment	
Acoustic alarm buzzes (provided jumper is set to "ON")	Room temperature is below 6°C (43°F)	Low battery Problem in heating system or signal to thermostat	Replace battery and test thermostat Check heating supply to the system and the circulator pump Check master control, CFM, is properly wired.	Max. load for CFM 6W, max. Load for CFS 3W
Master or slave controller row(s) and entire columns lit on master output array	No heat	Blown fuse in master/slave Loose wire connection between master and slave controller	First check actuators for proper wiring then replace fuse in master/slave controller, 1.25A Check wire and connection between master and slave	
Constant light in LED array	No heat	Defective zone actuator Lack of heated fluid to system	Replace zone actuator Check heating supply to the system and the circulator pump	
LED on back of room thermostat does not blink during test mode	Lack or excessive heat to floor heating system	Faulty battery Bad contacts between battery and thermostat Defective room thermostat	Replace battery/ Adjust connection in thermostat to ensure better contact to battery Replace room thermostat	
All output LEDs are unresponsive	No heat	Improper wiring Master controller is defective	Check wiring of power to CFM Replace master controller.	
CFM controller output array blinks rapidly 3 times specifically from a row and column(s)	None	Normal operation during test of room thermostat		





- GB Typical wiring diagram (Europe)
- D Typischer Schaltplan
- DK Typisk el-diagram
- S Elanslutning
- FIN KytKentäkaaviomalli
- F Diagramme (Europe)
- NL Aansluitschema (Europa)
- PL Przykład schematu połączeń (Europa)
- CZ Typické schéma zapojení (Evropa)

**Typical wiring diagram
(Applies to the USA & Canada)**



GB If the regulator is fitted in a metal cabinet or where a wall, a concrete floor or other structural components attenuate the transmission signal from the room thermostats to such an extent that a faulty alarm is triggered, an external antenna, order no. 088H0093, must be used.

D Wird der Regler in einem Metallschrank oder an einem Ort montiert, an dem die Dämpfung des Signals von den Raumthermostaten durch Wände, Betondecken oder andere Gebäudeteile zu Fehlalarmen führt, so ist eine externe Antenne, Bestellnr. 088H0093, einzusetzen.

DK Hvis regulatoren monteres i et metalskab eller hvor væg, betondæk eller andre bygningsdele dæmper sendesignalet fra rumtermostaterne så meget, at der op står fejlarmer, skal der anvendes en ekstern antenne, best. nr. 088H0093.

S Om regulatorn monteras i ett metallskåp, eller där väggar, betonggolv eller andra byggnadsdelar dämpar sändarsignalen från rumstermostaten så mycket att larmet löser ut, ska man använda en extern antenn, best.nr 088H0093.

FIN Jos ohjain asennetaan metallikoteloon tai paikkaan, jossa seinä, betonilattia tai muut rakennusosat vaimentavat huonetermostaattien

lähetettävää viestiä niin paljon, että järjestelmä antaa vikahälytyksen, on käytettävä ulkopuolista antennia, tuotenumero 088H0093.

F En cas d'installation du régulateur dans une armoire métallique ou bien à tout autre endroit où un mur, une plate-forme en béton ou d'autres éléments de construction atténuent le signal émis par les thermostats d'ambiance au point de déclencher une fausse alarme, il convient d'utiliser un capteur externe, n° de code 088H0093.

NL Als de regelaar in een metalen behuizing wordt gemonteerd of op plaatsen waar een wand, beton of andere delen van een gebouw het zendsignaal van de ruimtethermostaten dusdanig dempt dat er foutalarmen ontstaan, moet er een externe antenne, best.nr. 088H0093, worden gebruikt.

PL Jeżeli regulator znajduje się w metalowej obudowie lub betonowe ściany i stropy osłabiają sygnał wysłany przez termostaty pokojowe, należy zastosować zewnętrzną antenę (numer katalogowy 088H0093)

CZ Pokud je regulátor namontován v kovové skříně nebo na místě, kde dochází ke snížení kvality signálu /stěna, betonový strop nebo jiné části budovy/ je třeba instalovat přídatnou anténu, obj. č. 0088H0093.

FC FCC ID: PGBTYPE-CFR , CAN 3934104209
This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada and with RSS-210 of Industry Canada:
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.