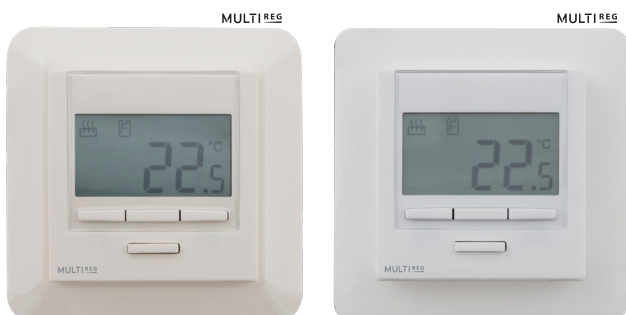


MULTIREG LCD2

01.01.2021
Version 2.28

Ver 2021-B

Installation guide



Multireg LCD2 is an electronic thermostat with four functions. Room sensor, floor sensor, power regulator and maximum / minimum limiter. The thermostat has a backlit LCD-display and weekly programming.

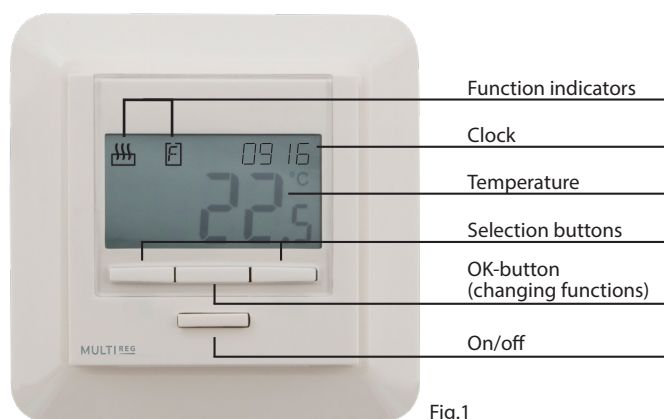


Fig.1

CONNECTING THE THERMOSTAT

The thermostat must be connected to electrical systems in accordance with the wiring diagram (Fig.3). The thermostat must be connected to a residual current disrupter with a max. trigger current of 30mA.

The thermostat can withstand a load of max. 16A/3600W at 230V. At higher loads, the thermostat must control a contactor. The thermostat does not have a galvanic insulation between high current and low current. The sensor must therefore be regarded as live (230V) and must be installed in accordance with current requirements for high current installations.

The front cover is removed by pressing the locking clips into the lower slot on each side of the thermostat (Fig.2). Take care not to damage the thermostat.

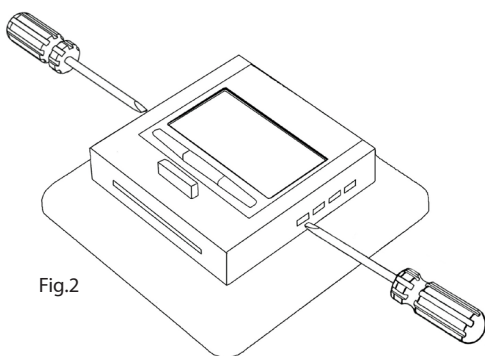


Fig.2

CONNECTIONS:

Torque: 2Nm

Terminal 1: S (connected to L for setback temperature)

Terminal 2: L

Terminal 3: N

Terminal 4+5: NTC - Floor sensor

Terminal 6+7: Max. load 3600W (LOAD)

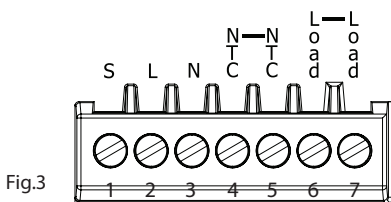




Fig.3

STARTUP/CLOCK SET

After the thermostat is connected to 230V and you press the on/off button, the thermostat will switch on at 20°C. The time display will flash 00:00. The thermostat is now in room temperature sensor mode with set temperature and the symbol  is shown in the display.

Before programming your thermostat, you must set the clock.


Press the OK button for 5 seconds. When the clock symbol  flashes, press OK once.


Choose whether or not you want to display the time (on/off). (Set temperature does not require the clock to be set.)

Confirm with the OK button.

If you choose OFF, the thermostat is ready to be used in set temperature mode. For use with other modes, choose ON.


Choose the day of the week. 1=Monday, 2=Tuesday etc. Confirm with OK.

Set the hours and minutes. Confirm with OK. The clock symbol  flashes. Continue to the next paragraph: Choosing a program.

When the  symbol is shown in the display, it indicates that the heat is on.


CHOOSING A PROGRAM


a) Set temperature

When the symbol  is shown in the display, the thermostat is programmed to the set temperature option. To switch between set temperature and weekly program press the OK button and the left selection button simultaneously for 5 seconds.


b) Weekly program - setback temperature

Press the OK button and the left selection button simultaneously for 5 seconds.


Weekly schedule is shown with  symbol in the display.

Set the time for morning comfort temperature. Symbol 
Confirm with OK.

Set the desired temperature. Confirm with OK.

Set the time for daytime economy temperature. Symbol 
Confirm with OK.


Set the desired temperature. Confirm with OK.

Set the time for afternoon comfort temperature. Symbol 
Confirm with OK.

Set the desired temperature. Confirm with OK.

Set the time for nighttime economy temperature. Symbol 
Confirm with OK.

Set the desired temperature. Confirm with OK.

Set the time for weekend comfort temperature. Symbol 
Confirm with OK.

Set the desired temperature. Confirm with OK.


Set the time for weekend economy temperature. Symbol 
Confirm with OK.

Set the desired temperature. Confirm with OK.

The thermostat automatically leaves programming mode after 10 seconds. Alternatively, you can switch the thermostat off and back on. The settings are stored automatically.

SETBACK MODE


Setting the temperature

Press down the OK button for 5 sec. Press the right selector button twice. The symbol  appears in the display.

Confirm with OK.

Set the desired temperature. Confirm with OK.

Manual activation of setback mode

Hold down OK and right selector button for 5 sec. The symbol  appears in the display. Deactivation is done in the same way.

External activation of setback mode

Activation via a relay and/or a GSM-module connected via the S and L clamps at the back.

Choosing sensor mode

Press the OK button for 5 seconds. Press the right selection button 3 times. The symbol  is shown in the display.

Confirm with OK.

Set the desired sensor type.

A = Room sensor

F = Floor sensor

AF = A combination of floor sensor/room sensor

P = Power regulator

Confirm with OK.

(The F and AF choices are only valid if a floor sensor is connected to clamps 4+5.)

If AF mode is chosen, the Min and Max temperature must be confirmed. The preset values are Min=10°C and Max=27°C.
Confirm with OK.

Functions of the different sensor modes:

A: Room sensor

Multireg LCD2 has a built-in room sensor. It is important that the thermostat is placed so that it has free air flow around it. It should not be exposed to direct sunlight, draught from doors e.g, since this may cause the thermostat to misread the room temperature. Room sensor mode is the default setting for the Multireg LCD2 thermostat.

F: Floor sensor

The floor sensor is placed in a tube in the floor when the floor is installed. The floor sensor reacts quickly to changes in the temperature and is less vulnerable to external conditions than the room sensor.

AF: A combination of room sensor and floor sensor

The room sensor controls the temperature, but the floor sensor will override the room sensor if the floor temperature becomes too high or too low according to the Max or Min settings.

For example:


The room sensor is set to 22°C. The floor sensor is set to Min 18°C - Max 26°C. If the floor temperature dips below 18°C the heat will be turned on even if the room temperature is above 22°C. If the floor temperature exceeds 26°C, the heat will be turned off even if the room temperature is less than 22°C.

P: Power regulator

The power regulator has a 30 minute cycle. The desired pulse/pause ratio may be set from 0 til 10, where each level increases the switch-on time by 3 minutes. For example: Level 3 indicates that the heat is switched on for 9 minutes and off for 21 minutes, while level 6 will switch the heat on for 18 minutes and off for 12 minutes.

PROGRAMMING AN NTC-SENSOR

Multireg LCD2 supports a number of NTC sensors (10kOhm, 12kOhm, 15kOhm, 33kOhm and 47kOhm). The standard sensor value is 10kOhm. Choosing an NTC sensor type is only possible in F and AF mode. A floor sensor must be connected to change the sensor type.


Press the OK button for 5 seconds. Press right selection button 3 times. The symbol  is shown in the display.

Confirm with OK.

Press the right and left selection buttons simultaneously for 5 seconds. The chosen sensor value flashes in the display (10kOhm standard).

Choose your sensor value by pressing the left or right selection buttons. Confirm with the OK button twice.


TEMPERATURE CALIBRATION

Press the OK button for 5 seconds. Press the right selection button 4 times. The symbol  is shown in the display.

Confirm with OK.

"ROOM"- and/or "FLOOR"- sensor may be calibrated with +/- 9,5°C. Confirm with OK.

DISPLAY LOCK / CHILD LOCK

Press the right and left selection buttons simultaneously for 3 seconds. The symbol is  shown in the display. The lock is deactivated in the same way.

ERRORS AND POWER FAILURE

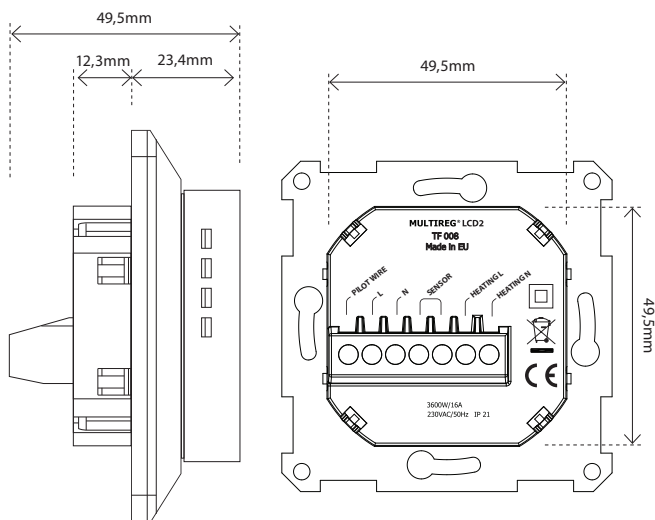
Error codes:

E1 - Indicates a room sensor error

E2 - Indicates a floor sensor error

When an error occurs, the thermostat will revert to 20% of max. load.

Multireg LCD2 has a 5 hour memory, which will save your settings in case of a power failure.



PRODUCT INFO Multireg LCD2

FEATURES

- Room sensor
- Floor sensor
- Temperature limiter
- Power regulator
- Weekly schedule
- Setback via pilot wire
- Lock mode/child lock
- Backlight
- Calibration

TECHNICAL DATA

Rated voltage	230V 50/60Hz
Max load	3600W (resistive loads only)
Max current	16A
Power consumption	0,5W
Power regulator	Time cycle 0 - 30min
Ambient temperature	0°C - 60°C
Temperature reg. area	Floor sensor 5°C - 60°C Room sensor 5°C - 40°C
Hysteresis	0,5°C
Switch	2-pole-switch
Included in package	Floor sensor, Art. no. 54 301 07
Compatible with NTC sensors with values	10, 12, 15, 22, 33 and 47 kΩ @ 25°C
IP code	IP 21
Approvals	CE EMC 2014/30/EU, RoHS 2011/65/EU LVD 2014/35/EU

TERMINAL

Use 1,5mm² or 2,5mm² according to load.

May be ordered with Eljo front and frame.

MAINTENANCE

The device is maintenance-free, but must never be covered.

WARRANTY

2 years

ART. NO.	PRODUCT	COLOR
54 303 01	Multireg LCD2 thermostat 4 func. 3600W 16A	White RAL 9010
54 304 01	Multireg LCD2 thermostat 4 func. 3600W 16A	White RAL 9003
54 304 49	Plastic kit for the Multireg LCD2 thermostat	Black RAL 9011
54 303 11	Frame, single	White RAL 9003
54 303 12	Frame, single	Black RAL 9011
54 301 07	Floor sensor Ø 4mm 3 meters NTC 10 kΩ	
54 301 08	Floor sensor Ø 3mm 6 meters NTC 10 kΩ	
54 304 71	External enclosed sensor IP 20/54	

Thermo-Floor AS can not be held liable for typographical errors, other errors or omissions in our information. Product specifications may change without further notice. All electrical installations must be carried out by a licensed electrician. The product must be installed in accordance with national building codes and our installation guides.