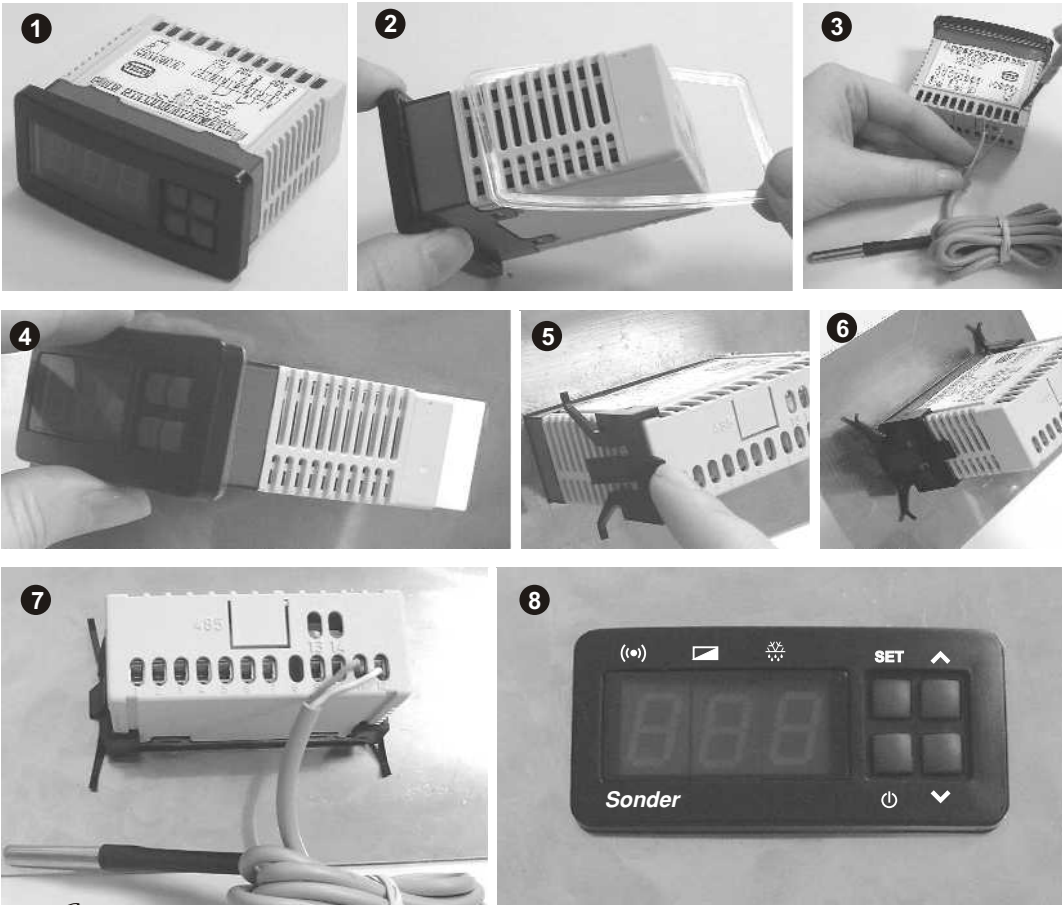


EC 70-322

Electronic Control

INSTALLATION AND USE INSTRUCTIONS



Guarantee conditions Electronic Control

This appliance has a two-year guarantee limited to replacement of defective parts.

We will not accept any responsibility for damage caused to the appliance by poor handling.

The guarantee does not include:

- Appliances with a damaged, effaced or altered series number.
- Appliances which have not been connected or used following the instructions that accompany it.
- Appliances which have been altered without the prior consent of the manufacturer.
- Appliances damaged by blows or liquid spills or gaseous emissions.

USER

First name: _____
Surname(s): _____
Address: _____
Town: _____
Postcode: _____
Tel. no.: _____
Purchase date: _____

INSTALLER

First name: _____
Surname(s): _____
Address: _____
Town: _____
Postcode: _____
Tel. no.: _____
Purchase date: _____

Installer or store stamp:

Return this slip to:

SONDER REGULACIÓN S.A.
Avda. La Llana 93.
P.I. "La Llana" 230.
08191 RUBÍ (Barcelona) SPAIN
FAX 93 588 49 94



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OPERATION

- 1.- When the appliance is switched on, the display will show the temperature detected by the sensor. Press **▲**, to view the second temperature sensor.
- 2.- To change the setpoint, hold down **SET**, and use the **▲** **▼** keys to increase or decrease the desired temperature. Release **SET** to store it in memory.

FACTORY SETTINGS

Nº	FUNCTION	VALUE
-	...Temperature setpoint.....	20°C
diF...	Temperature differential (hysteresis).....	2°C
LSE...	Low setpoint.....	40°C
HSE...	High setpoint.....	100°C
don...	Relay on delay.....	0 min
DoF...	Minimum off time.....	3 min
dt...	Defrost type.....	rE
CAL...	Sensor calibration reset.....	0°C
dit...	Defrost timer.....	24H
DET...	Defrost stop time.....	30 min
dSt...	Neuter area.....	2°C
doh...	Defrost begin on delay.....	1 min.
ddl...	Display blocked in defrost.....	Lb.
dt...	Time of leak.....	1 min.
PAS...	Parameters access code.....	0 Deactivated

SCALE

-40 to 140°C
1 to 9°C
-40 to 139°C
-39 to 140°C
0 to 99 min
0 to 15 min
rE / ci / cr
-9 to 9°C
1 to 24 h
0 to 99 min
-40 to 140°
0 a 59
Lb / y / n
0 to 99
0 to 49

The factory settings are those considered to be the most common for normal use of installations. If they are right for your purposes, your thermostat is ready to control and regulate your installation.

If you should need any other settings due to the requirements of your installation, please read this manual carefully.

DESCRIPTION OF PARAMETERS

- **Differential (dif)**: The compressor stops when it reaches the setpoint and restarts at a temperature equal to the setpoint plus the differential.
- **Low setpoint (LSE) and High setpoint (HSE)**: The temperature limits within which the setpoint can be adjusted and set.
- **Compressor on delay (don)**: Delay time applied when the temperature reaches the setpoint + differential. It is recommended to leave it at zero and use "doF" instead.
- **Minimum off time (doF)**: Delay time applied when the compressor stops and which prevents the compressor restarting even if conditions for this are met. This delay is also applied after switching on the thermostat to protect the compressor in the event of a power outage.
- **Defrost type (dt)**:
rE: The compressor stops during the whole time of defrost.
cr: Fixed activated compressor during the whole time of defrost.

- Independent compressor, regulating the watchword temperature.
- **Sensor calibration (CAL)**: This function enables you to change the displayed temperature.
- **Defrost timer (dit)**: Interval between the start of two successive defrosts expressed in hours.
- **Time-out defrost finish (dEt)**: After this time has elapsed (in minutes) defrost finishes. Zero indicates defrost disabled.
- **Temperature-out defrost finish (dSt)**: It allows to select the temperature of final of defrost (that is read by the second sensor).
- **Defrost begin on delay (doh)**: During this wait the luminous point \odot this intermittent one. Lapsed this time the relay of the defrost.
- **Display blocked in defrost (ddl)**:
Y: The display shows the last value of the main sensor.
n: During the defrost the message "dEF" was visualized.
Lb: During the whole defrost the message "dEF" was visualized.
- **Time of leak (dt)**: After a defrost both relays remains disabled during this time (minutes).
- **Parameters access code**: Factory setting zero (disabled). Enter parameter programming by pressing and holding down both arrows for 10 s. If the code is other than zero, enter parameters as follows:
A.- "PAS" is briefly displayed and then the message "- 0 -"; Use the up or down arrows to select the previously programmed PAS.
B.- Press PRG: If the selected number is the correct one, "diF" appears. If the selected number is incorrect the thermostat will not allow access to programming and "-" appears.

PARAMETERS PROGRAMMING

1. Press **▲** and **▼** at the same time for 10 seconds and "diF" will appear on the display. Release the keys.
2. Press PRG and its current value will be displayed.
3. Holding down PRG, press **▲** or **▼** to change the desired value. Release PRG to store it in memory. The designation of the parameter being programmed reappears.
4. Press **▲** to scroll forward to the next parameter. Repeat point 3.
5. Press **▲** to exit the parameters "- -" appears and then the current temperature detected by the sensor.

RELAYS DISPLAY

- LOAD**: A non-flashing light below the symbol indicates "connected" (during the don/doF parameter time it flashes).

ERROR INDICATORS

- "ESd" defrost sensor error: disconnected or its wiring cut off.
- "ESc" compressor sensor error: disconnected or its wiring cut off.
- "888" Memorization error in the parameters table.
- Point \odot : he lights when it doesn't regulate or when it doesn't operate (in modification it consigns or parameters) and during the time of leak.

TECHNICAL SPECIFICATIONS

<p>Electrical Diagram:</p>	<p>Drill Dimension:</p>	<p>Display:.....3 Digit (Red). Input:.....2 PTC 2000 Ohm. sensor IP67. Control scale:.....from -40 to 140°C. Resolution:.....1°C. Power supply:.....230 Vac +10%, -15%. 50/60Hz. Optional:.....12, 24 V ac/dc y 110 Vac. Breaking power (contacts):.....8(3)A 250Vac 1/4Hp. Connected wire section:.....1,5mm². External box protection grade:.....IP55. Working temperature:.....-5°C to 45°C. Storage temperature:.....de -20 to 60°C. Action type:.....(1.B action).</p>
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VERY IMPORTANT !:

It is the installer's responsibility to fit electrical protection suitable for the installation (STANDARDIZED). Reserved the modification right without previous warning.



Sonder Regulación, S.A.; Avda/La Llana 93. Apto.: 230; 08191 RUBÍ (Barcelona) Spain
e-mail: info@sonder-regulacion.com; web:www.sonder-regulacion.com



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