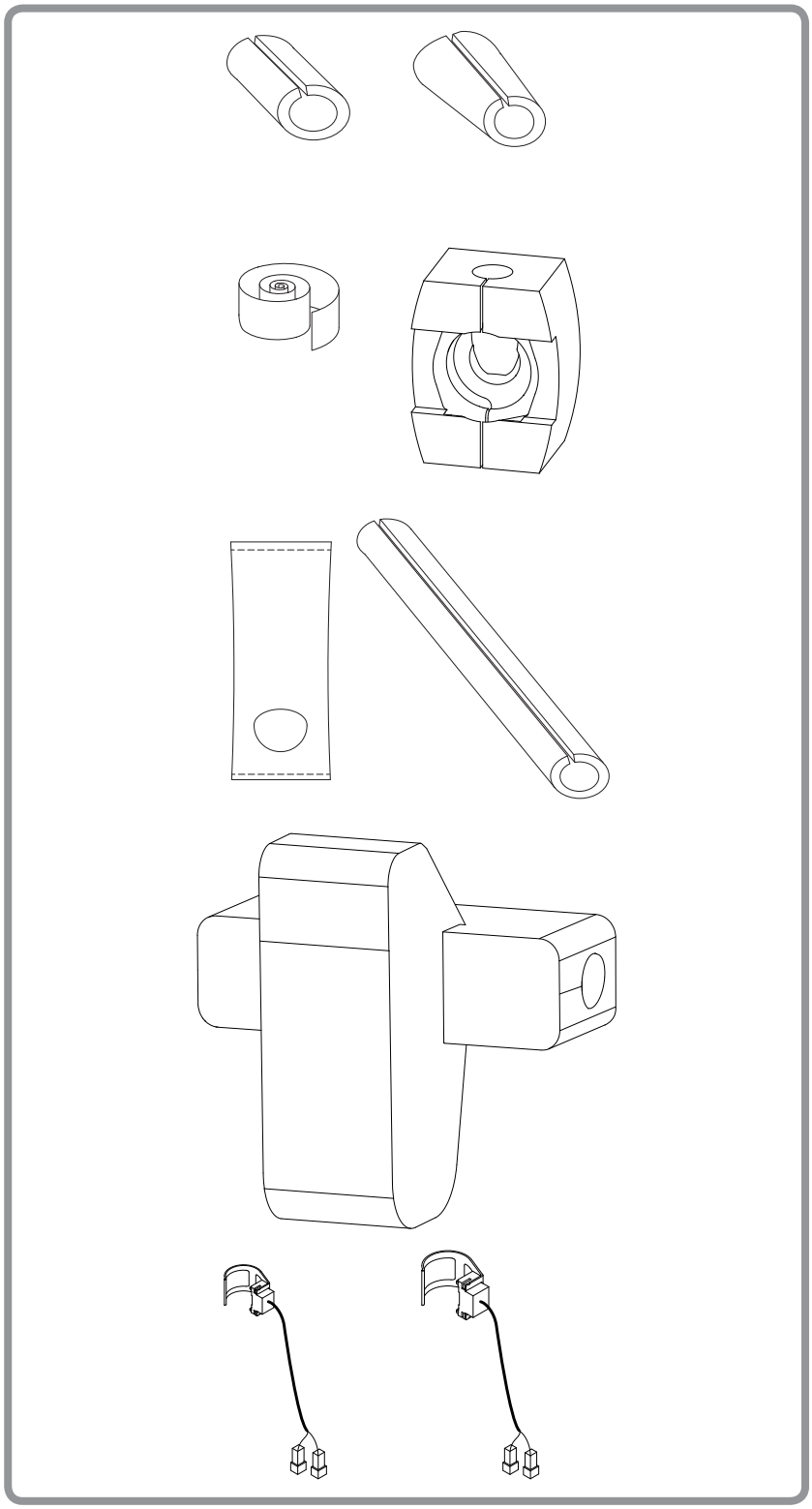
Document No. 1690-3 ~ 19/09/2016

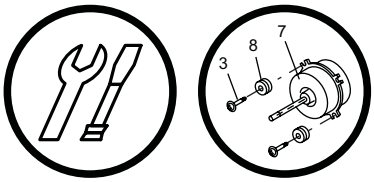
FR NL DE **EN** PL

Cooling kit

ref. 076313

for heat pumps with
single service split system





Installation manual

for professionals

to be kept by the user
for future reference

Société Industrielle de Chauffage
BP 64 - 59660 MERVILLE - FRANCE

- ☞ **It is strictly forbidden to use a radiator circuit in cooling mode.**
- ☞ **To avoid any risk of condensation, damp rooms such as kitchens and bathrooms must be equipped with valves to prevent water from flowing into the corresponding floor circuit in cooling mode.**
- ☞ **Before switching on the floor heating-cooling circuit, check that the floor's construction and coverings are compatible with cooling mode.**
- ☞ **DHW production takes priority over cooling.**

Nominal cooling performances

Model name . . . . . Loria (duo) . . . . . 4 . . . . . 6 8				
Cooling output				
+35 °C / +18 °C - Cooling floor system	kW	4.46	5.49	7.60
+35 °C / +7 °C - Fan-coil system	kW	2.94	3.62	5.02
Power absorbed				
+35 °C / +18 °C - Cooling floor system	kW	1.24	1.63	2.42
+35 °C / +7 °C - Fan-coil system	kW	1.18	1.54	2.29
Cooling efficiency (EER)				
+35 °C / +18 °C - Cooling floor system		3.59	3.37	3.14
+35 °C / +7 °C - Fan-coil system		2.50	2.35	2.19

1 Assembly and connections

Glycol must be used if the initial temperature is less than 10 °C (cooling on the fan-coil heater). If water containing glycol is used, carry out an annual check of the quality of the glycol. Use monopropylene glycol only. **Never use monoethylene glycol.**

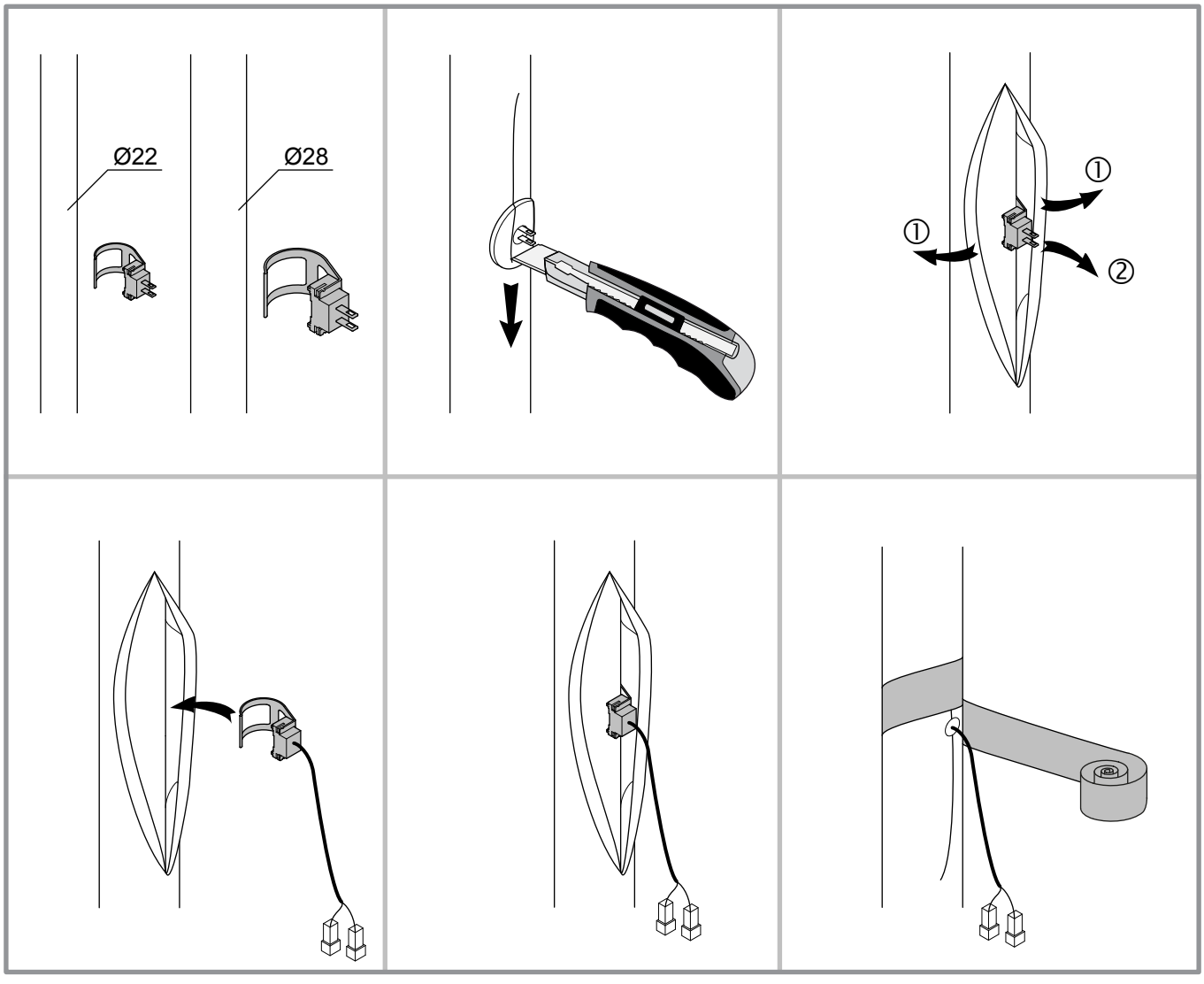


figure 1 - Change of flow and return sensors - OBLIGATORY

1.1 Thermal insulation

Install the thermal insulation kit on the metal parts to avoid condensation.

- **1** - Install the **straight insulating sleeves** on the exchanger's heating fittings.
- **2** - Install the **conical insulating sleeves** on the exchanger's refrigeration fittings.
- **3** - Place the insulating tape on all pipe fittings.
- **When used with the 2-area kit:**

- Install the different insulating covers.
- Install the piping insulation.
- Finalise the insulation by placing the insulating tape on all pipe fittings.

- **Loria duo:**

- Install the insulating cover on the sediment trap last.

> ☞ **Warning**
>
> **Insulate the gas and liquid pipes to avoid condensation:**
>
> Use insulating sleeves that resist temperatures of over 90°C. In addition, if the level of humidity around the refrigerating pipes could exceed 70%, protect the latter with insulating sleeves. Use an insulating material thicker than 15 mm if the humidity level reaches 70~80%, and an insulating material thicker than 20 mm if the humidity level exceeds 80%. If the recommended thicknesses are not complied with under the conditions described above, condensation will form on the surface of the insulation material. Finally, use insulating sleeves with a thermal conductivity equal to 0.045 W/mK or less when the temperature is 20°C. The insulation must be impermeable to prevent steam from passing during the defrosting cycles (glass wool is prohibited).

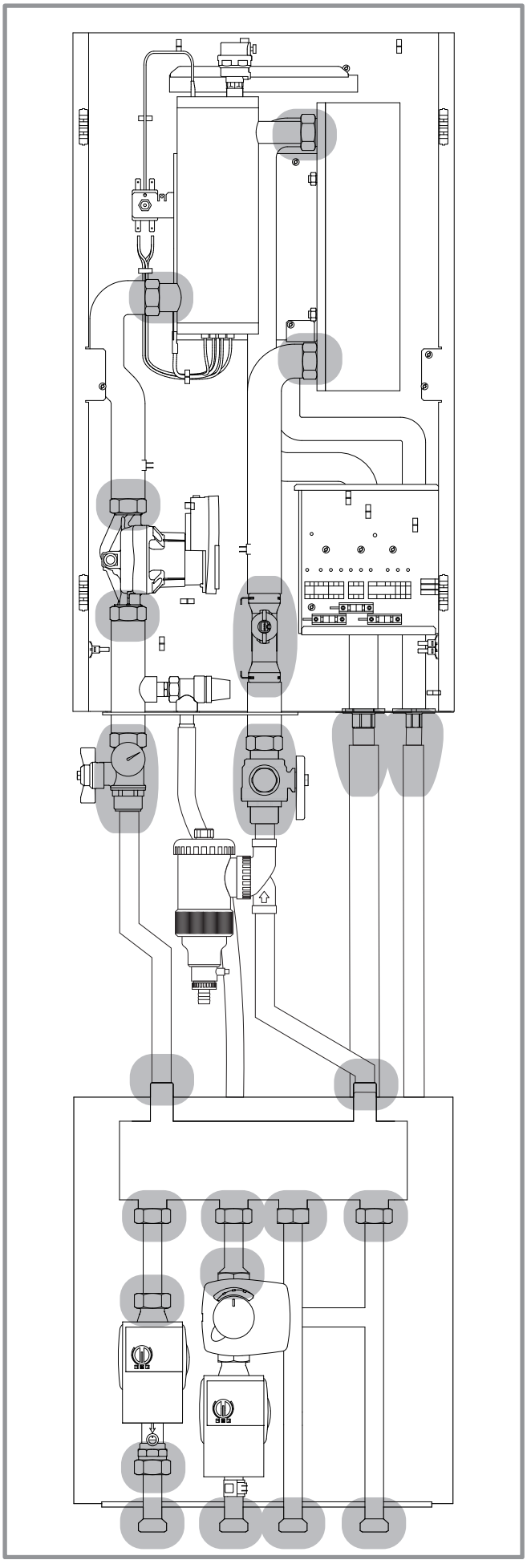


figure 2 - Thermal insulation (heat pump + 2-area kit (optional))

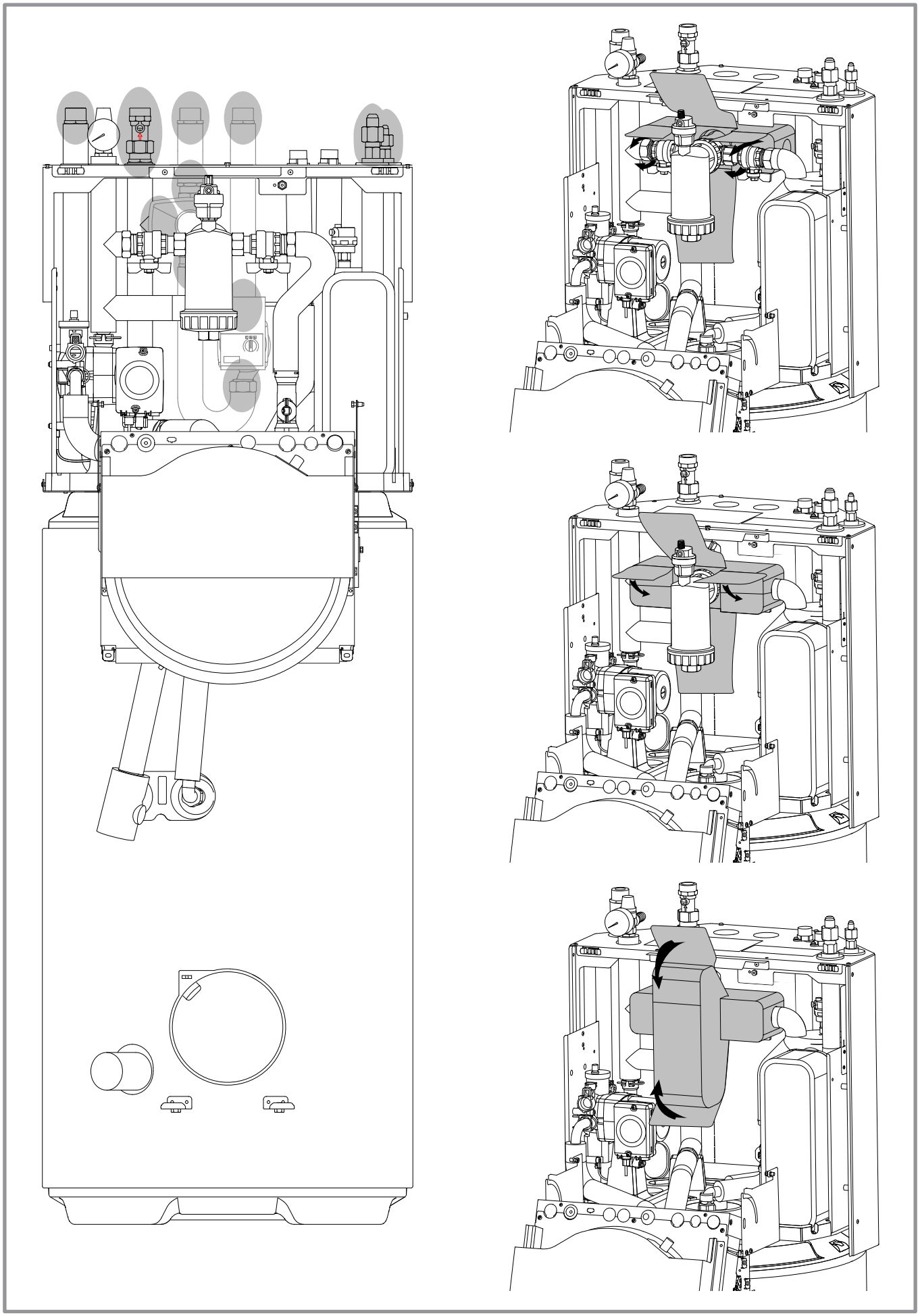


figure 3 - Thermal insulation
(duo heat pump + 2-area kit (optional))

1.2 Regulation parameters

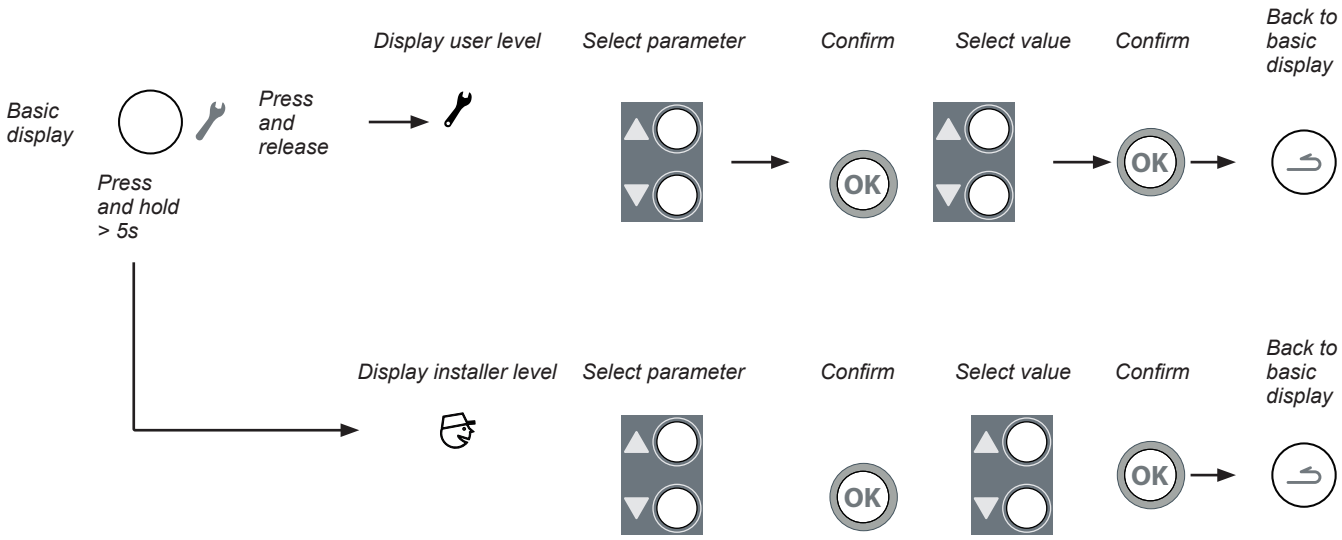
1.2.1 Overview

Two viewing modes are available: - User.

- Installer.

The access levels are specified in the second column of the table with the corresponding icons.

1.2.2 Setting the parameters.



1.2.3 List of function lines

No.	Description of parameter	Configuration or display range	Basic setting
Installation configuration			
4	General cooling authorisation	0 (not allowed)... 1 (allowed)...	**0**
5	Cooling authorisation (circuit 1) (1)	0 (not allowed)... 1 (allowed)...	**0**
6	Cooling authorisation (circuit 2) (1)	0 (not allowed)... 1 (allowed)...	**0**
Cooling setting (1), circuit 1			
34	Cooling curve slope	0.10... 4.00	**0.7**
35	Cooling curve displacement	-4.5... 4.5°C	**0 °C**
36	Min. initial cooling setpoint	5... 30 °C	**10 °C**
Circulation pump			
37	Pump speed	1... 4	**4**
Cooling setting (1), circuit 2			
42	Cooling curve slope	0.1... 4.00	**0.7**
43	Cooling curve displacement	-4.5...4,5 °C	**0**
44	Min. initial cooling setpoint	5... 30 °C	**10 °C**

(1) These parameters (or menus) may not appear. They depend on the appliance's configuration (on the options selected).

1.3 Commissioning

- Select the cooling use (*figure 4*) then confirm.
- Set the Cooling Comfort setpoint.
- Set the Cooling Eco setpoint.

☞ **Cooling follows the heating time programme.**

If the installation is equipped with one or more room thermostats (optional), the timer for each area is exclusively managed on the dedicated thermostat. Refer to the room thermostat instruction manual.

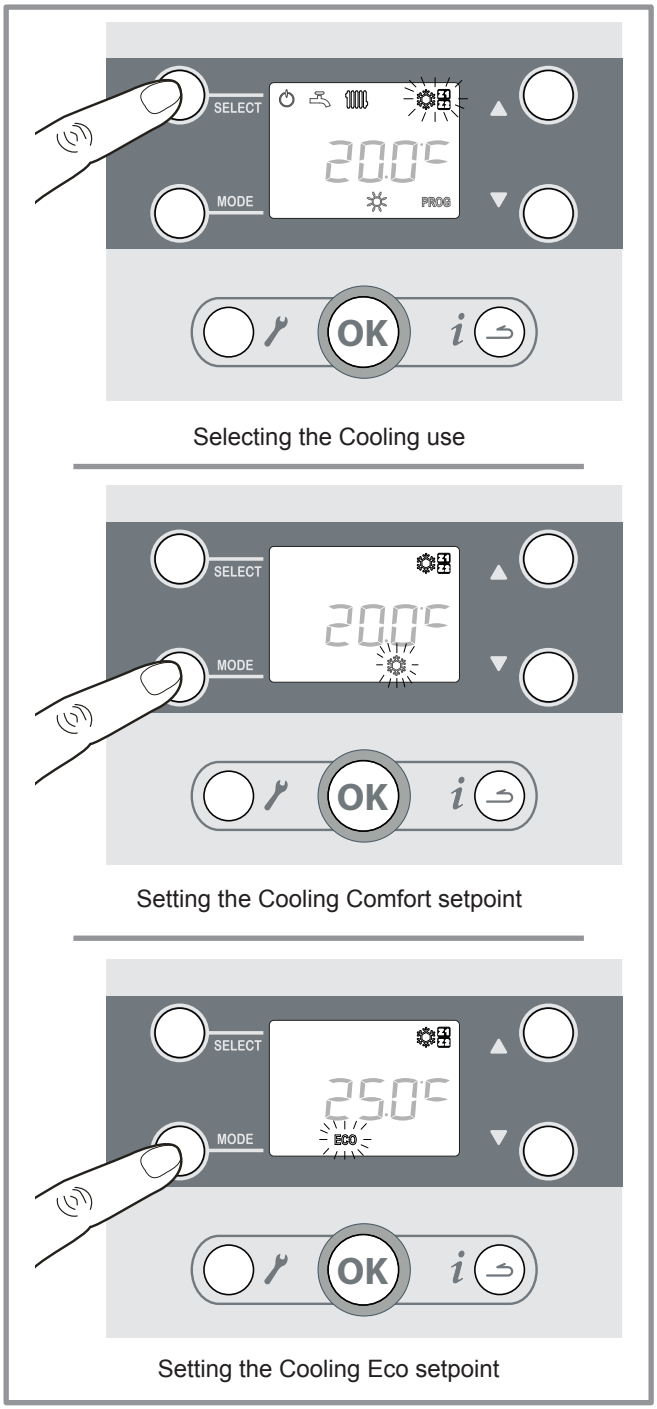


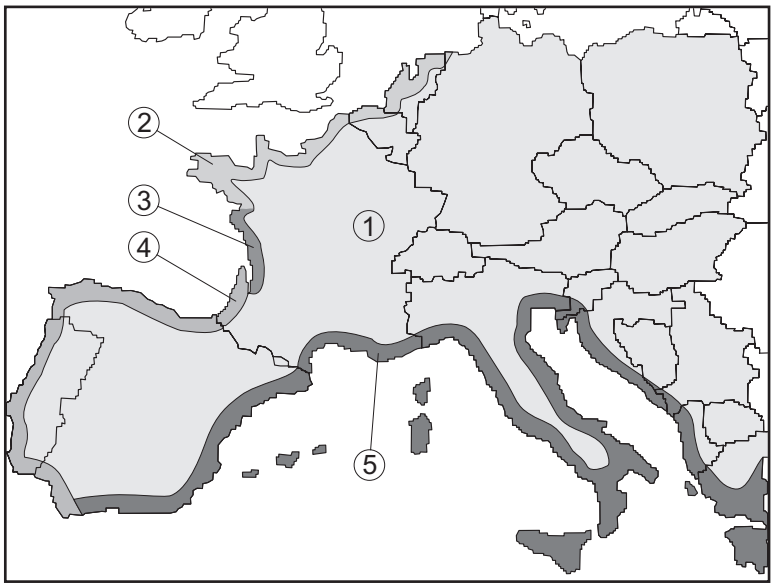
figure 4 - Setting the cooling function

1.4 Setting the parameters according to the installation

The parameter settings must be adapted to suit the heating-cooling emitters to avoid any discomfort caused by condensation or temperature fluctuations (see table below).

• Recommended settings for the parameters depending on the installation's emitters

Cooling		Floor heating-cooling system	Low temperature radiators	Dynamic radiators or fan-coil heaters	Classic temperature radiators
Cooling authorisation	(HC1)	**see optional cooling it**	-	**see optional cooling it**	-
	(HC2)				
Cooling curve slope	**34** (HC1)	**0.25**	-	**1 ***	-
	42 (HC2)				
Curve displacement	**35** (HC1)	**0**	-	**0 ***	-
	43 (HC2)				
Min. outgoing value	**36** (HC1)	**18 °C**	-	**10 °C ***	-
	44 (HC2)				



Geographical area	Outgoing water temperature limit (lines 36 and 44)
① Inland region	18°C
② Coastal region (width 30 km)	19°C
③ Coastal region (width 50 km)	20°C
④ Coastal region (width 50 km)	21°C
⑤ Coastal region (width 50 km)	22°C

figure 5 - Outgoing water temperature with floor heating system

The water temperature must be restricted to a value set according to the geographical area. Setting to the lowest temperatures runs the risk of causing condensation on the floor, together with all the other risks this may engender.

If the limit temperatures are not observed, the manufacturer may not be held liable for any physical injuries or damage to the equipment that may be caused.

2 Spare parts

When ordering spare parts, specify the appliance type and reference as well as the name of the part and its reference number.

No.	Ref.	Name	Type	Qty
1	140637	Insulating sleeve		02
2	140639	Insulating sleeve		02
3	140638	Insulating tape		2.80 m
4	141168	Insulating cover for circulation pump		02
5	141117	Insulating cover for valve		01
6	140610	Pipe insulation		1.20 m
7	141050	Insulating cover sediment trap		01
8	198745	Sensor	Ø 22	03
9	198767	Sensor	Ø 28	02

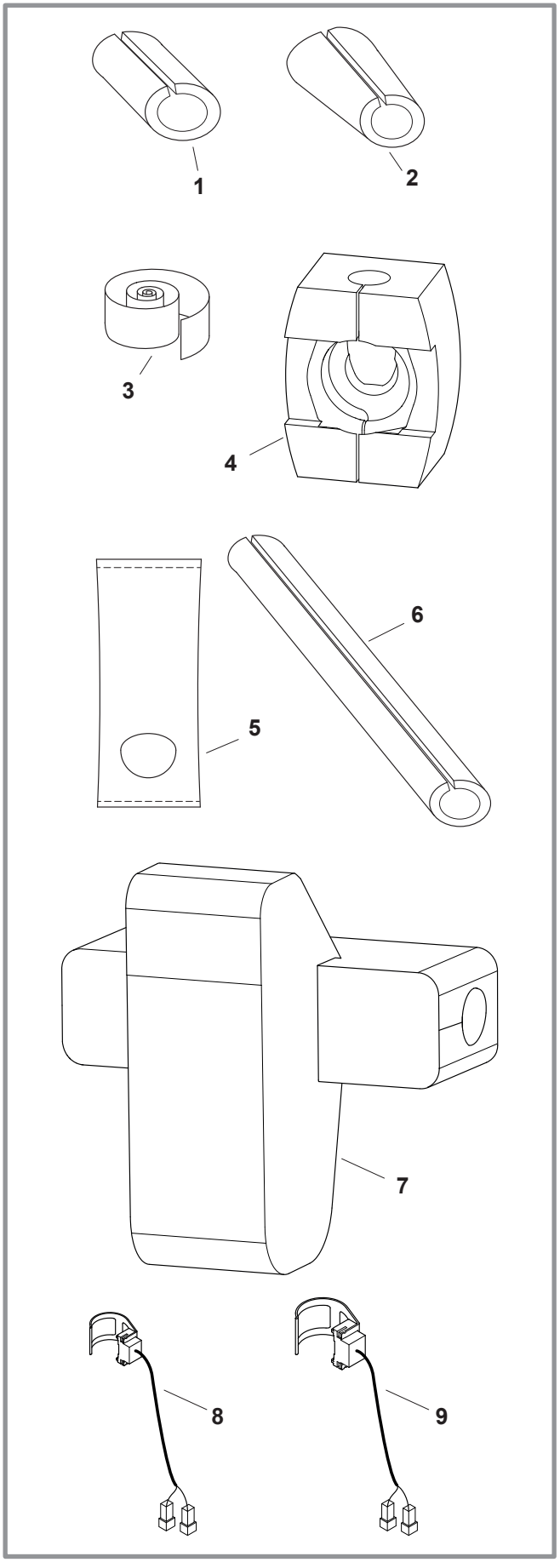


figure 6 - Cooling kit spare parts

This appliance complies with:
- the low voltage directive 2006/95/EC under standard EN 60335-1,
- the electromagnetic compatibility directive 2004/108/EC.

This unit is identified by this symbol. It means that all electrical and electronic products must not be included in household waste.
A specific recycling system for this type of product has been set up in European Union countries (*), Norway, Iceland and Liechtenstein.
Do not try to dismantle this product yourself. It may have damaging effects on your health or on the environment.
Reprocessing of the refrigerant, lubricant and other parts may be performed by a qualified installer in compliance with the local and national legislation in force.
This unit must be recycled by a specialised service and in no case may it be thrown away with household waste, rubble or in a landfill.
Please contact your installer or local representative for more information.

* Depending on the national regulations of each member state.

Date of commissioning:

Address of your heating installer or customer service.

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