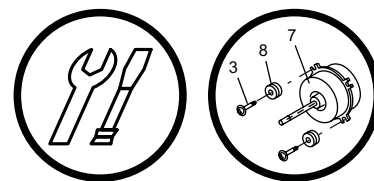
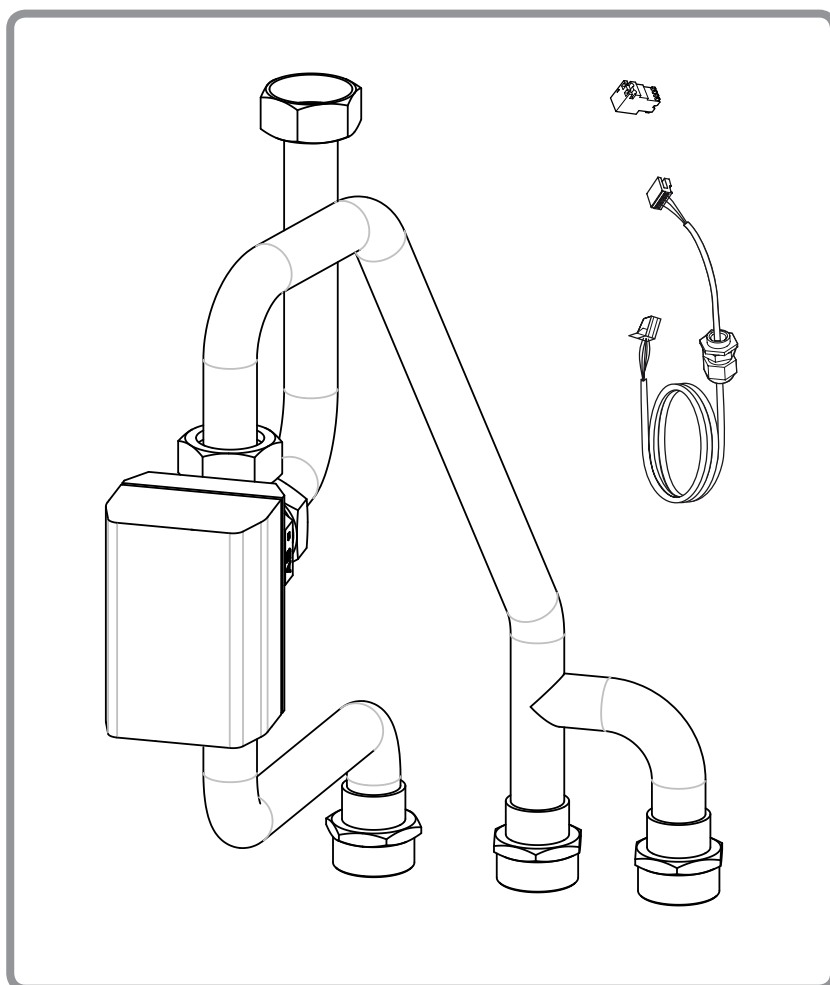


Boiler connection kit UTW-KBS*D



Installation instructions

**intended for the
professional technician**

these must be kept safe
for subsequent consultation

☞ **This manual primarily concerns the installation and connection of the boiler connection. Please refer to the technical manuals for the heat pump and the boiler for how to install and configure these units.**

Fujitsu General (Euro) GmbH
Wertstrasse 20
40549 Düsseldorf - Germany

Subject to modifications without notice.
Non contractual document.

1 Description of the equipment

1.1 Package

• **1 package:** Boiler connection kit.

On reception, before you fit anything, it is essential that you check the parts received and search for any damage caused during transport.

1.2 Scope of application

The connection of an oil or gas boiler to the heat pump requires the installation of the boiler connection kit.

This corresponds to the preset configurations **3** and **4** on the heat pump's hydraulic unit's regulator (line 5700).

1.3 Specifications

Power absorbed	W	< 25
Maximum operating pressure	bar	3
Supply voltage230V - 50HZ	
Boiler connection diameter	mm	26x34
Flow/return diameter (male)	mm	26x34
Weightkg	2,4

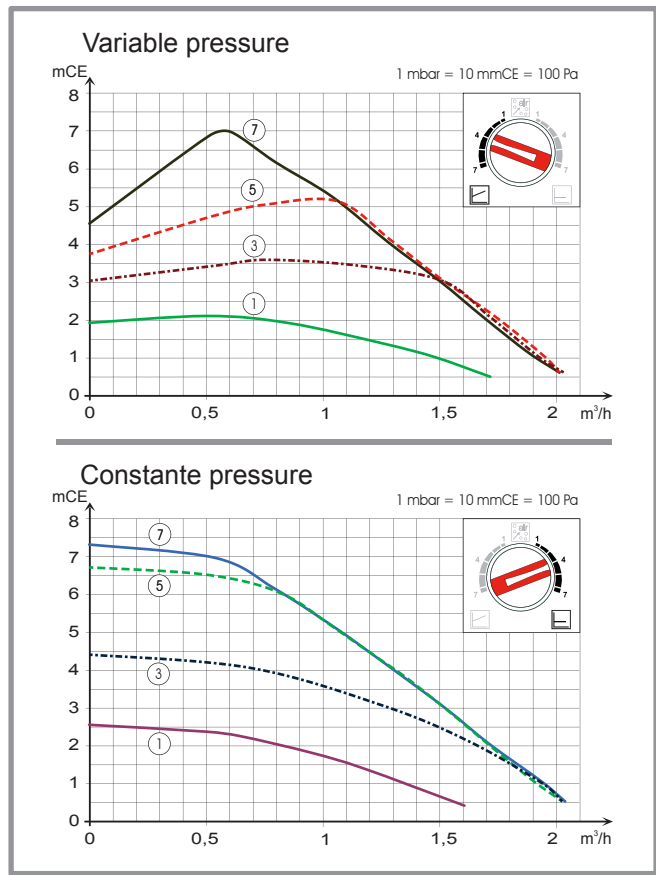


figure 1 - Hydraulic pressures and flow rates available (Hydraulic unit + Boiler connection kit)

1.4 Description

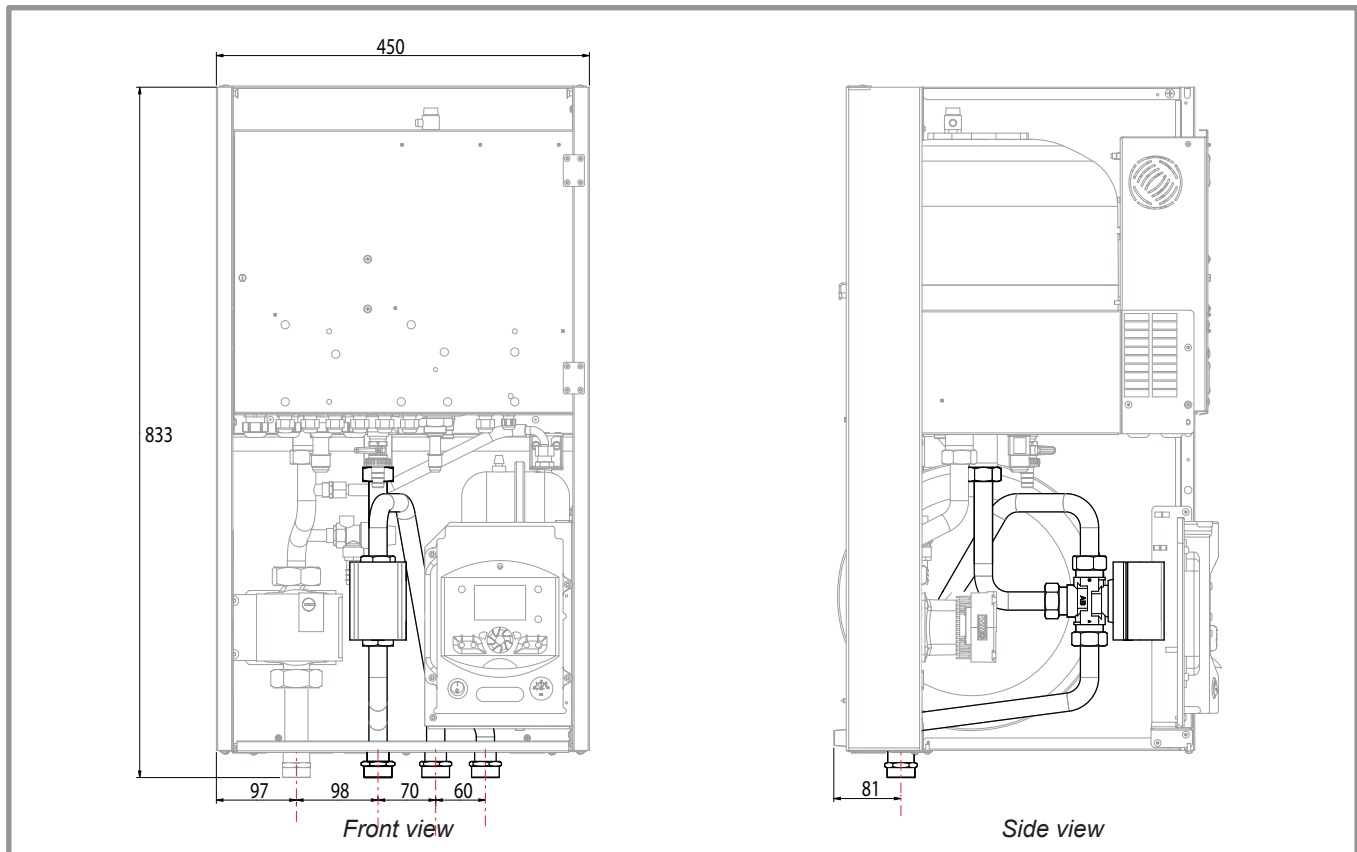


figure 2 - Dimensions in mm (Hydraulic unit + Boiler connection kit)

1.5 Operating principle

When the heat pump cannot supply the amount of energy required, the 3-way distribution valve shunts the circuit through the boiler to provide additional energy.

The heat pump can be prevented from operating and the boiler forced to operate by means of control contact EX1 (bypass).

☞ Please refer to the manual provided with the heat pump.

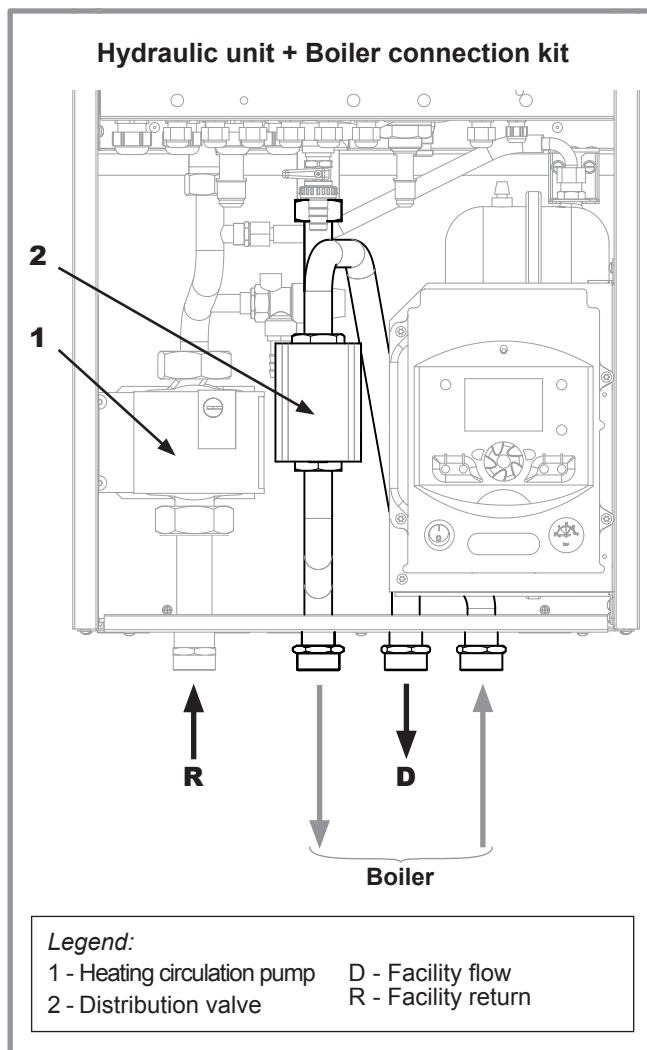


figure 3 - Appliance devices

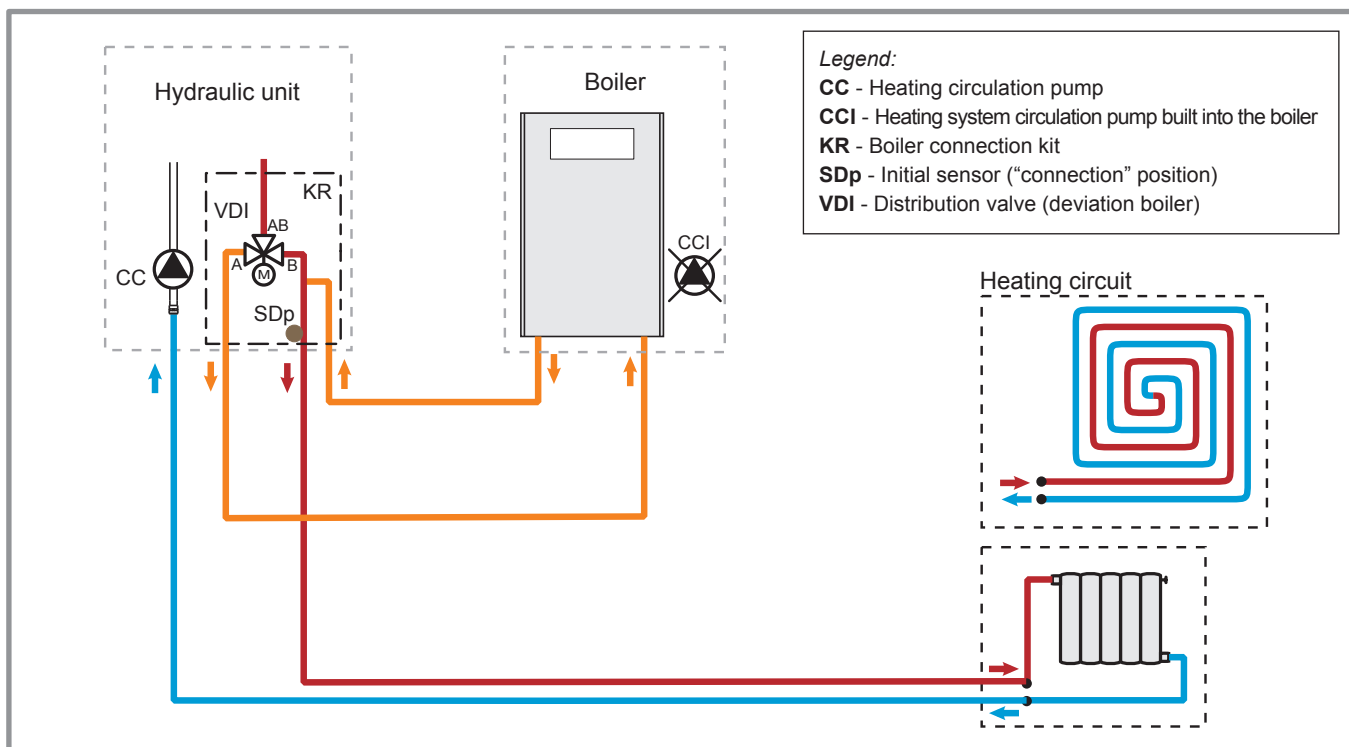


figure 4 - Overall hydraulic layout (Boiler connection kit)

2 Installation instructions

The installation of the boiler connection kit depends on the configuration of your facility (see page 8 & 9).

2.1 Fitting the boiler connection kit

A : way A open: heat pump + boiler operating.

B : way B open: heat pump operating alone.

- **1** - Remove the "pipe support" of the HP.
 - Remove the heating flow sensor from the flow pipe.
- **2** - Remove and suppress the HP flow pipe.
- **3** - Apply the hydraulic circuit marking label.
- **4** - Install the connection kit on the HP.
 - **Fix the flow sensor** on the facility's flow pipe (see figure 7, page 5).
- **5** - Fitting the "pipe support".

Good contact must be maintained between the heating flow sensor and the pipework.

The contact surface between the piping and the sensor should be free of rust and paint.

2.2 Hydraulic connections

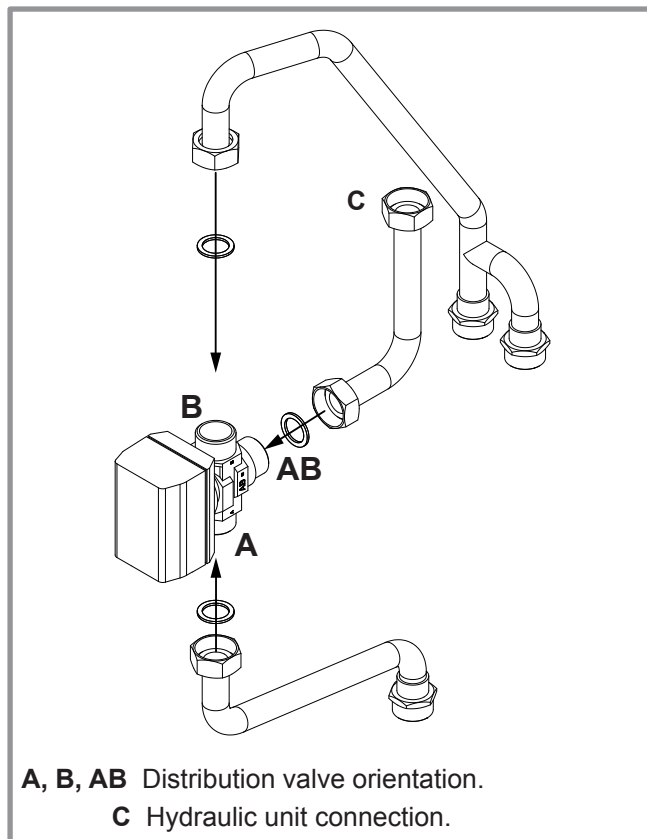
The connection must comply with good trade practice according to local building regulations.

Tightening torque: 15 to 35 Nm.

The appliance must be connected to the installation with union connectors and shut-off valves to facilitate its removal.

Reminder: Seal everything when fitting in accordance with prevailing trade practice for plumbing work:

- Use suitable seals (fibre seals, o-rings).
- Use Teflon tape or hemp.
- Use sealing paste (synthetic depending on the case).



A, B, AB Distribution valve orientation.
C Hydraulic unit connection.

figure 5 - Fitting the boiler connection kit

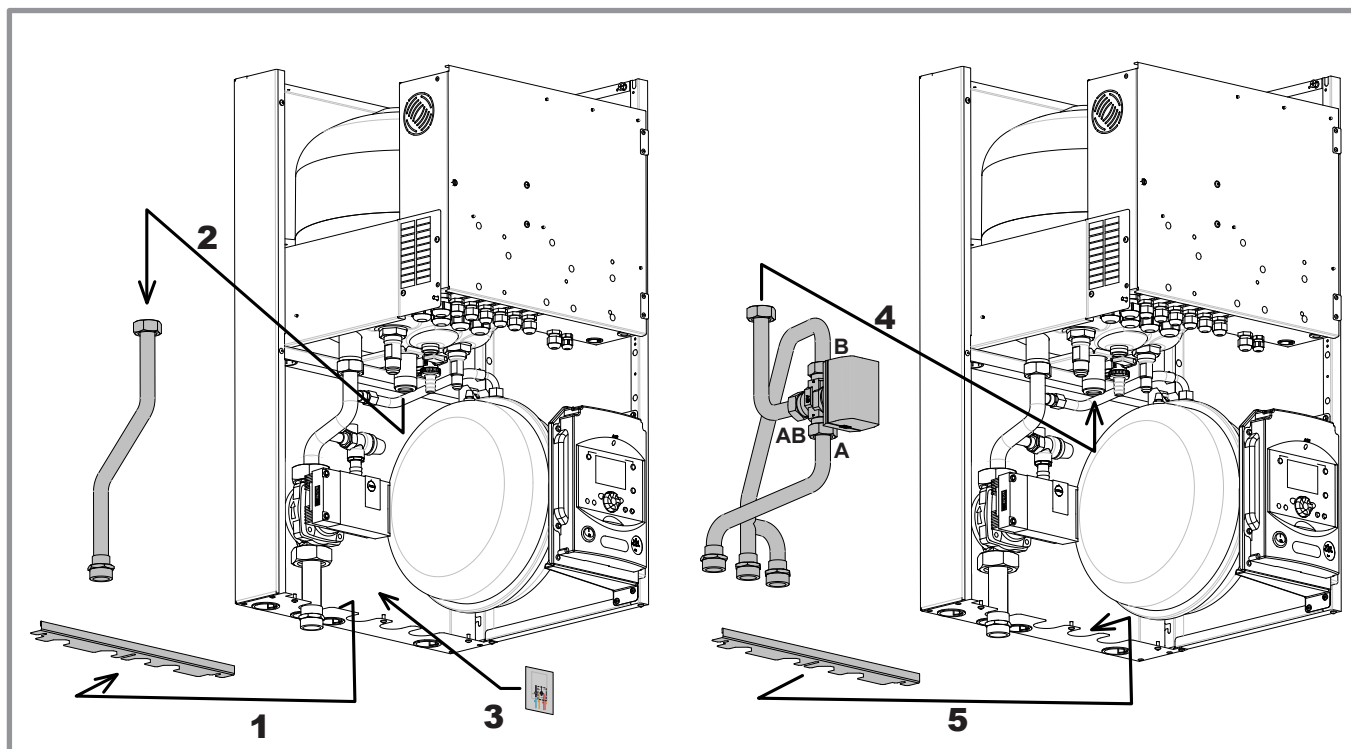


figure 6 - Installing the boiler connection kit on the hydraulic unit

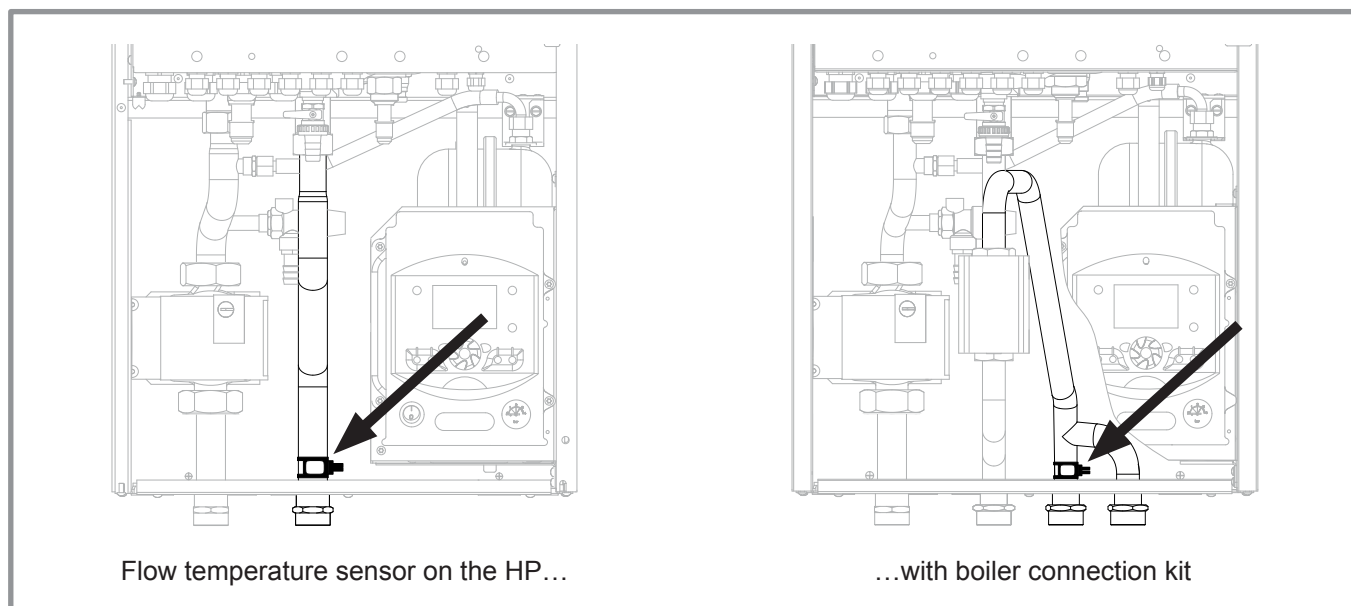
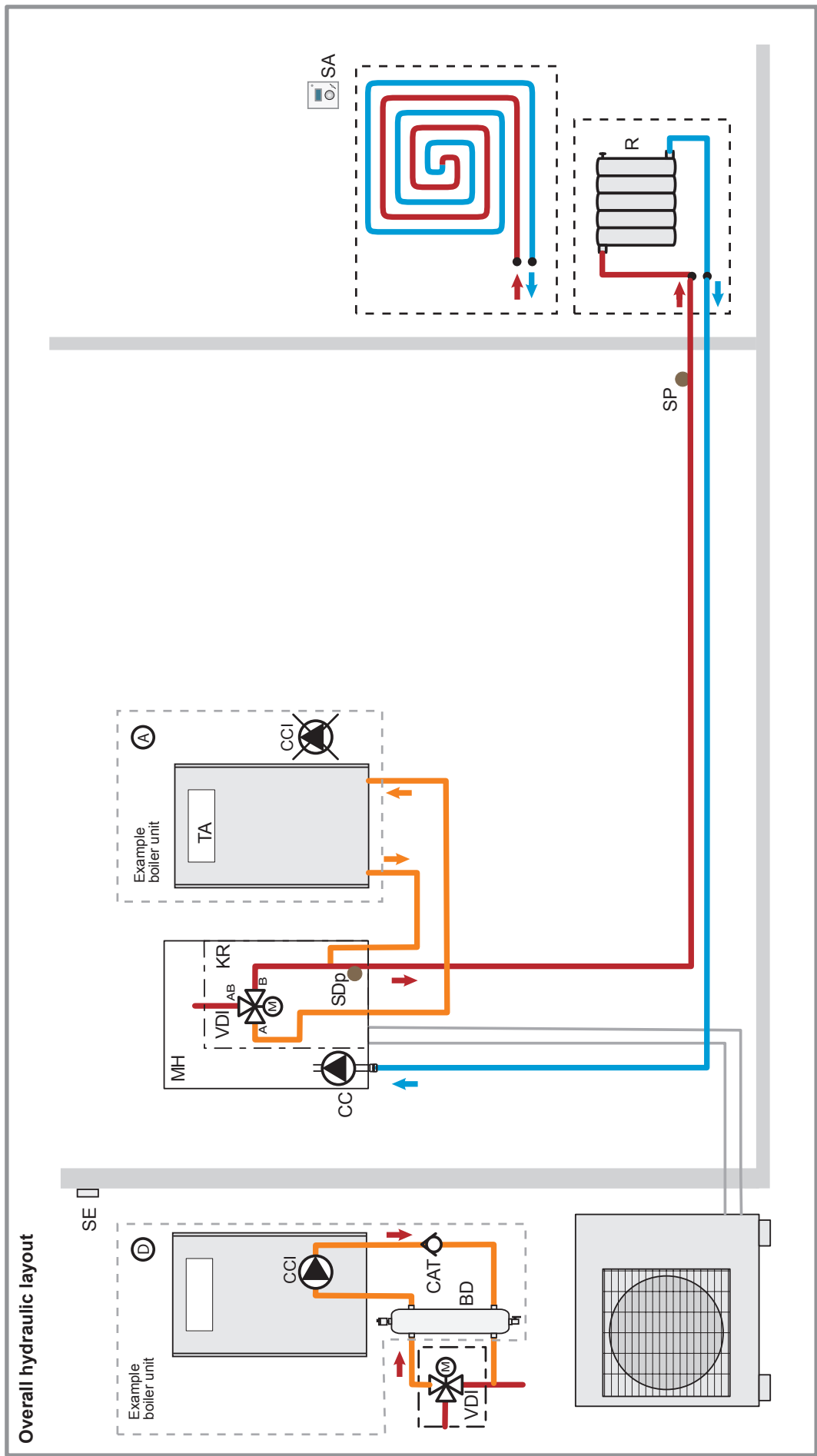


figure 7 - Position of the flow temperature sensor

2.3 Overall hydraulic layout

• Installation configuration 3 : Boiler connection and 1 heating circuit



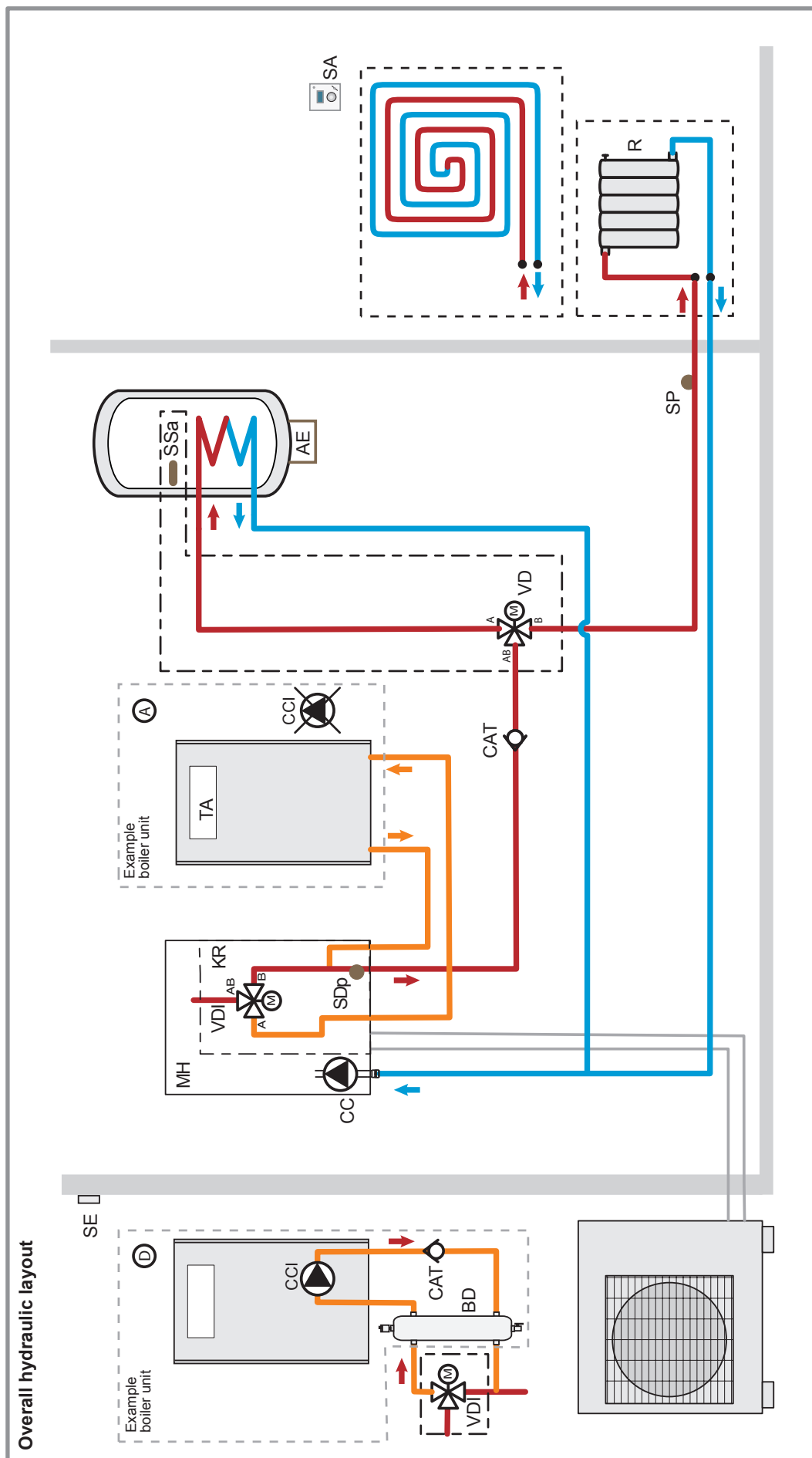
Legend:

- BD** - Disconnection bottle
- CAT** - Anti-gravity feed valve
- CCI** - Heating system circulation pump built into the boiler

- CC** - Heating circulation pump
- KR** - Boiler connection kit
- MH** - Hydraulic unit
- R** - Radiators (or fan convectors)
- SA** - Room thermostat or Room control unit (option)

- SE** - Outdoor sensor
- SDR** - Initial sensor ("connection" position)
- SP** - Heated floor thermal safety fuse
- TA** - Boiler room thermostat terminals
- VDI** - Distribution valve (deviation boiler)

• Installation configuration 3 : Boiler connection, 1 heating circuit and DHW tank

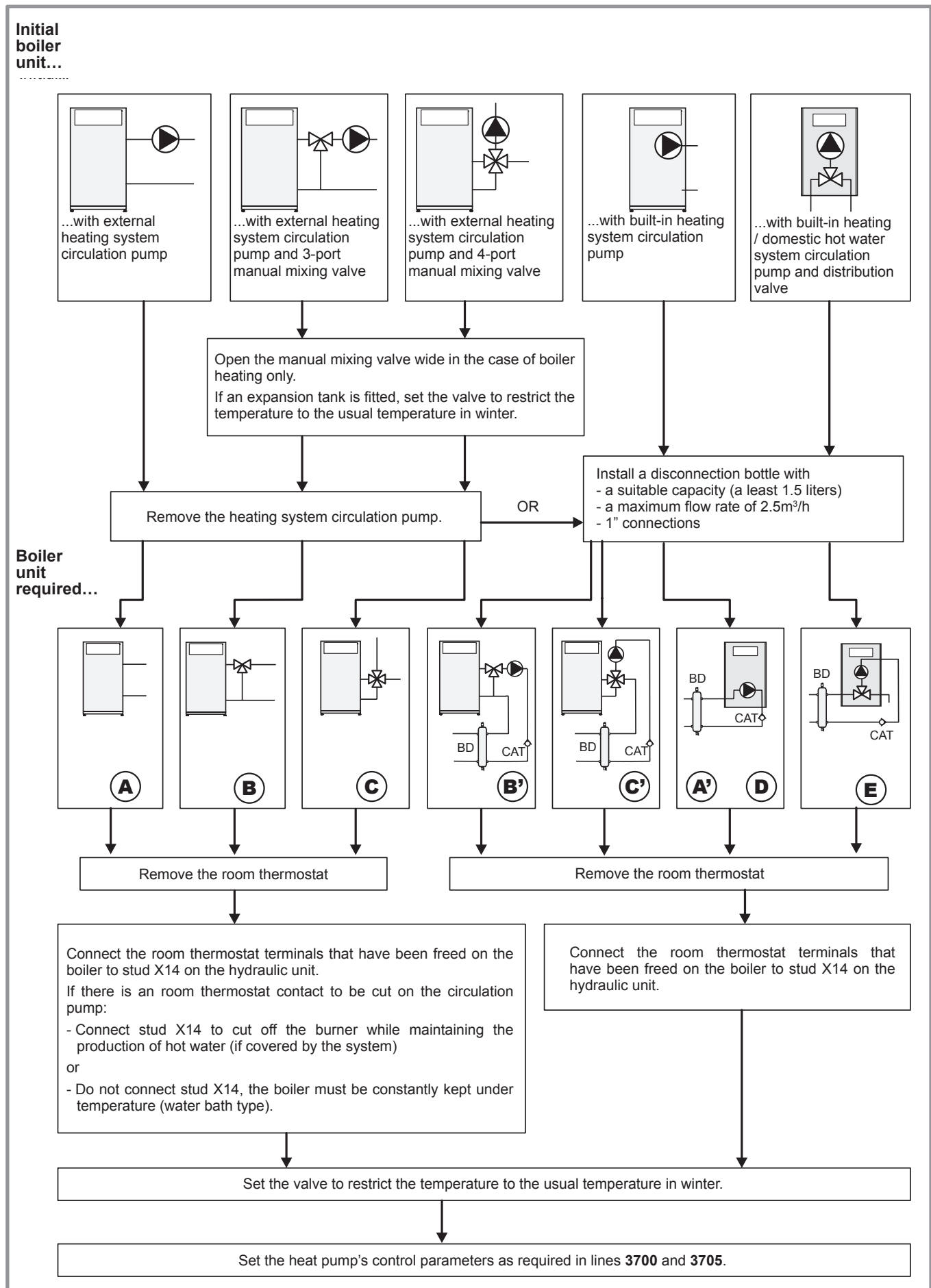


Legend:

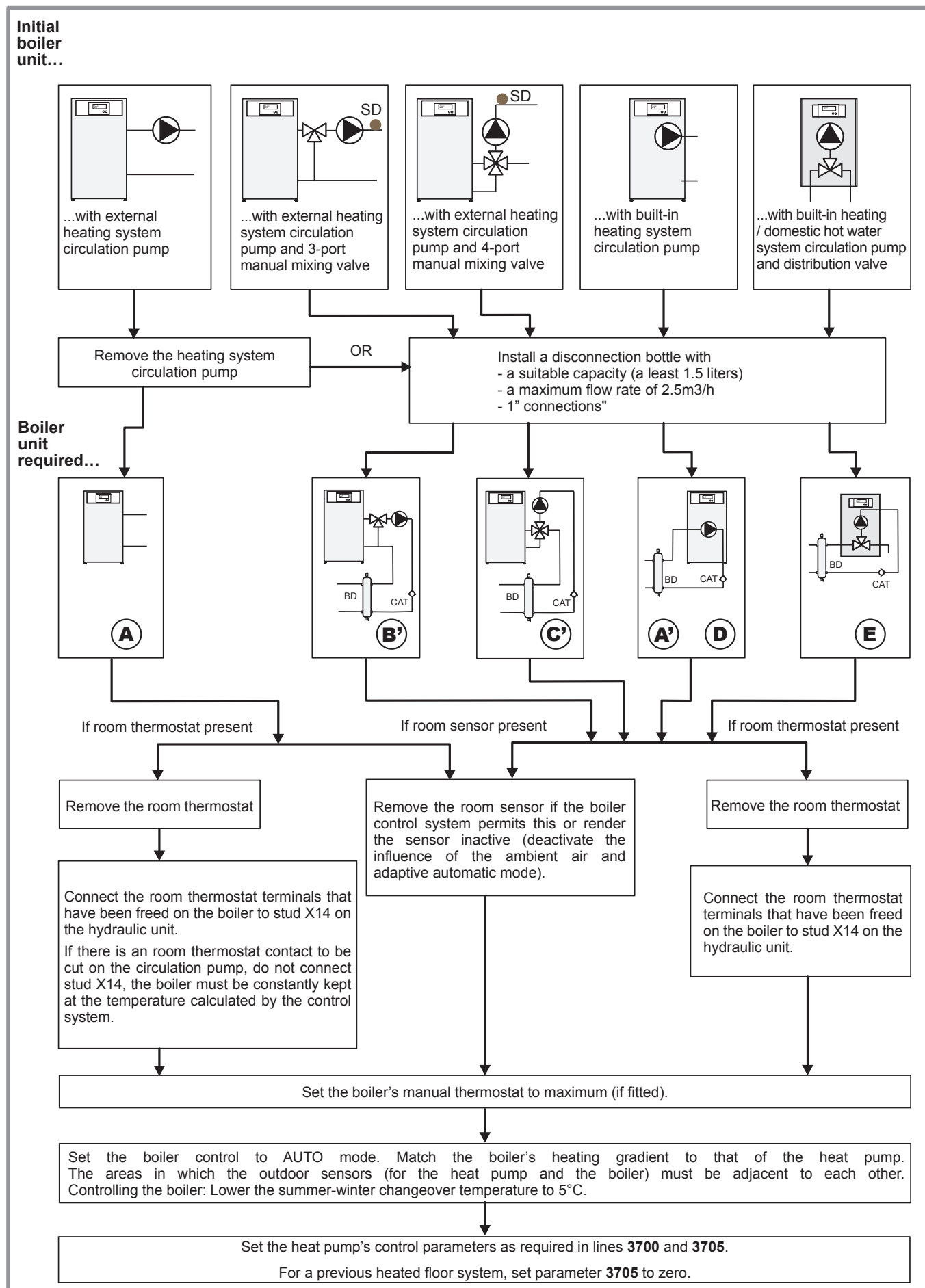
AE - Electrical backup	KR - Boiler connection kit	SSa - DHW sensor
BD - Disconnection bottle	MH - Hydraulic unit	SP - Heated floor thermal safety fuse
CAT - Anti-gravity feed valve	R - Radiators (or fan convectors)	TA - Boiler room thermostat terminals
CC - Heating circulation pump	SA - Room thermostat or Room control unit (option)	VD - Distribution valve
	SE - Outdoor sensor	VDI - Distribution valve (deviation boiler)
	SDR - Initial sensor ("connection" position)	

2.4 Boiler configuration - Unregulated boiler

☞ Not suitable for an installation with a heated floor.



2.5 Boiler configuration - Regulated boiler



2.6 Electrical connections

Ensure that the general electrical power supply has been cut off before starting any repair work.

The electrical installation must be conducted in accordance with the prevailing regulations.

The electrical connections must only be made when all the other fitting operations have been completed (fixing, assembly, etc.).

Remark: In the case of a heated floor, insert the floor heating thermal safety device between the **X12** connector and the floor heating circulation pump.

Make the following connections:

- **6** - Disconnect the **X13** and **X14** connectors (single phase electrical back-up, see [figure 8](#)).
- **7** - Disconnect the **X82** connector (3-phase electrical back-up, see [figure 9](#)).
- **8** - Disconnect or not connect the power supply of the electric back-up.

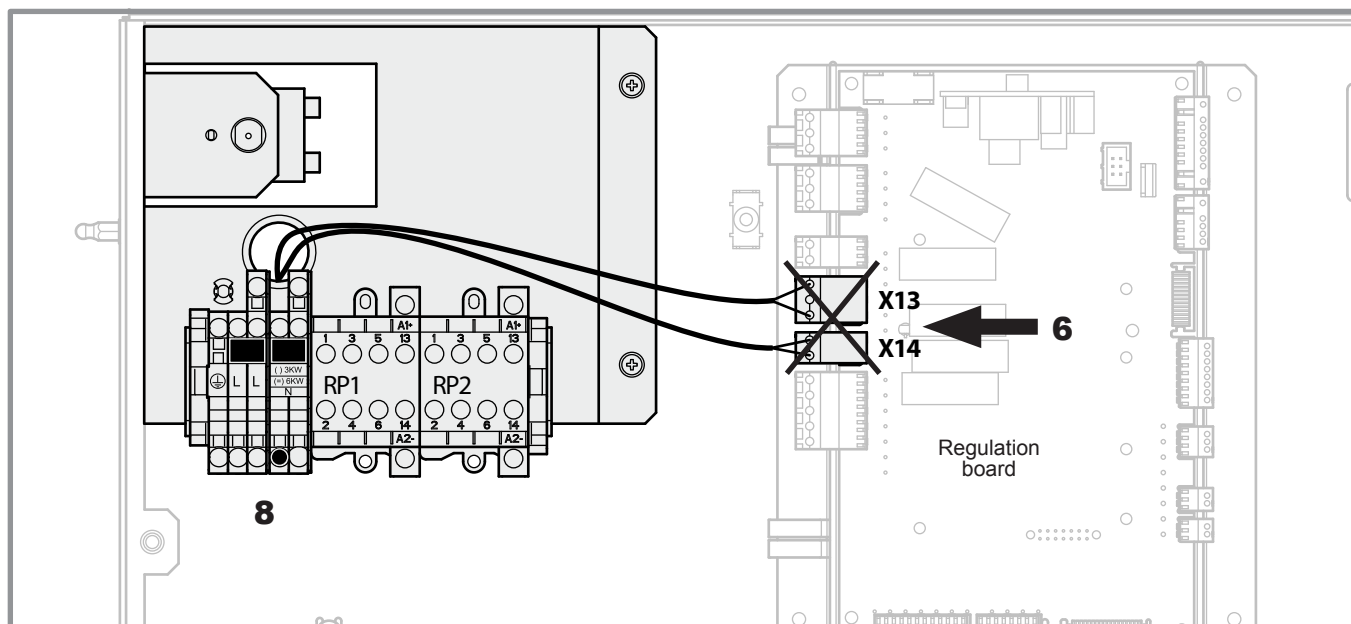


figure 8 - Disconnection of the single phase electrical back-up

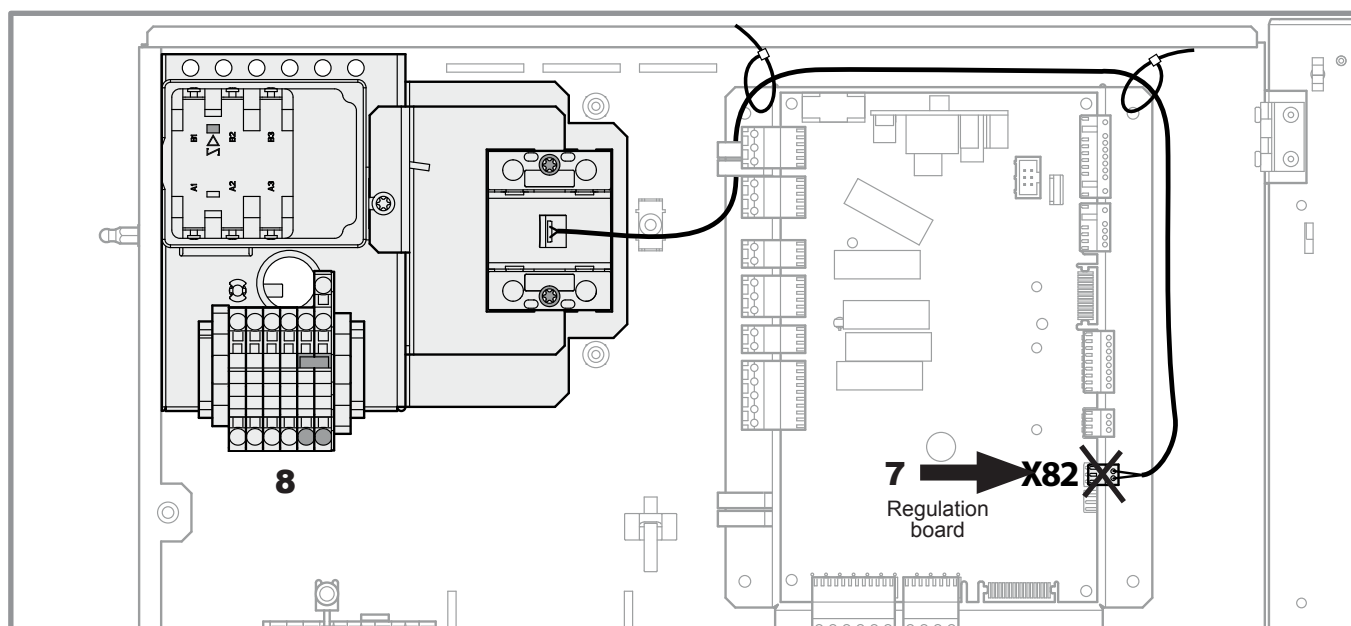


figure 9 - Disconnection of the 3-phase electrical back-up

- **9** - Distribution valve (deviation boiler) on the **X13** connector.
- **10** - Connect the boiler control to the **X14** connector. Please refer to the instructions supplied with the boiler.
- **()** - Stick the label of wiring inside the front plate of the hydraulic unit.

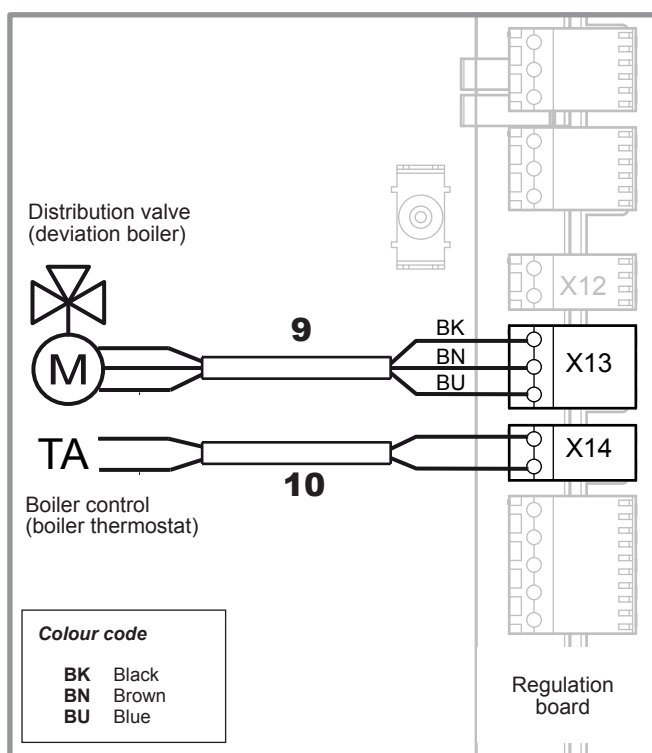


figure 10 - Electrical wiring (Boiler connection kit)

2.7 Pre-utilization check

- Please refer to the manual provided with the heat pump.
- Please refer to the instructions supplied with the boiler.

2.7.1 Boiler connection operating test

The distribution valve of the boiler connection and of the boiler can be engaged by setting the Emergency operation = "On" (parameter 7141 to "On").

- ☞ **Do not forget to reset the parameter to 0 (Off) after the test.**

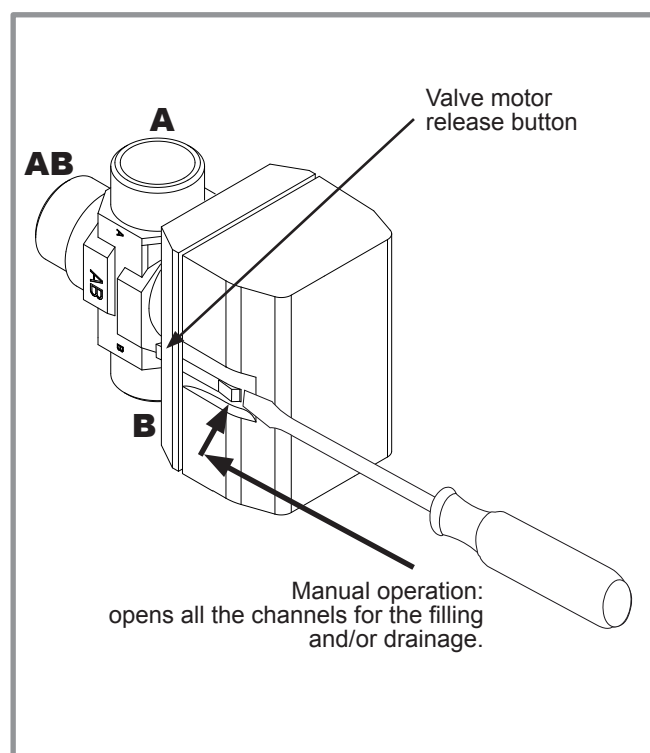


figure 11 - Distribution valve

3 Spare parts

When ordering spare parts, specify the appliance type and serial number, the name of the part and the part number.

Qty = Total quantity on the appliance.

Nr	Code	Designation	Type	Qty
1	142735	Gasket	26x34	04
2	184064	Pipe of valve		01
3	184065	Pipe		01
4	988109	Valve		01
5	150322	Motor		01
6	184066	Pipe		01
7	110865	Connector		01
8	109682	Bundle		01

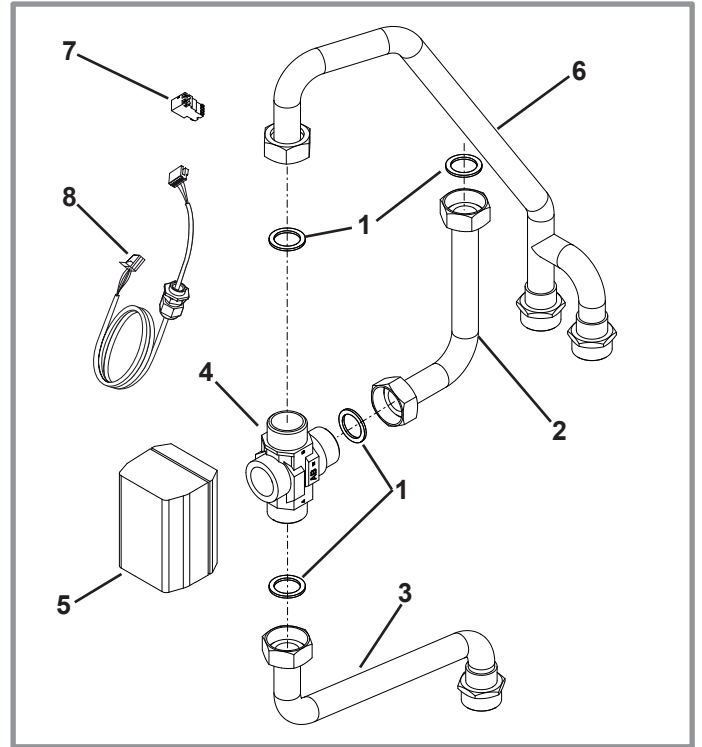


figure 12 - Spare parts Boiler connection kit



Complies with:
 - Low voltage directive 2006/95/EC, under standard EN 60335-1.
 - Electromagnetic compatibility Directive 2004/108/EC.



This appliance is marked with this symbol. This means that electrical and electronic products shall not be mixed with general household waste. European Community countries(*), Norway, Iceland and Liechtenstein should have a dedicated collection system for these products. Do not try to dismantle the system yourself as this could have harmful effects on your health and on the environment. The dismantling and treatment of refrigerant, oil and other parts must be done by a qualified installer in accordance with relevant local and national regulations. This appliance must be treated at a specialized treatment facility for re-use, recycling and other forms of recovery and shall not be disposed of in the municipal waste stream. Please contact the installer or local authority for more information.
 * subject to the national law of each member state

Date of installation :

Contact of your heating technician or your after-sales service.