WATERSTAGE

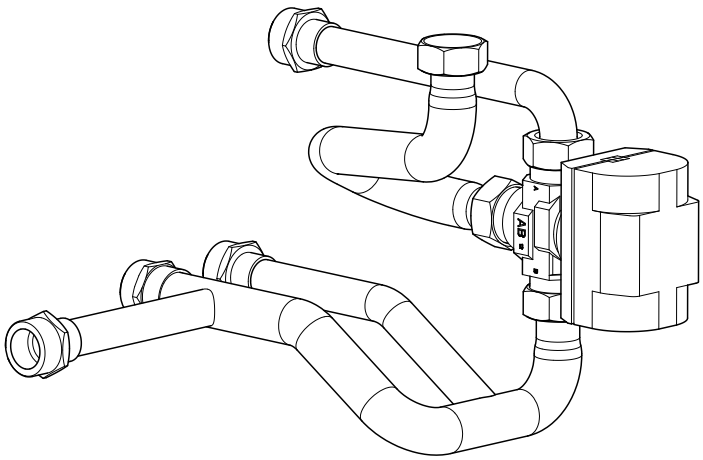
Document n° 1601-1 ~ 05/03/2013

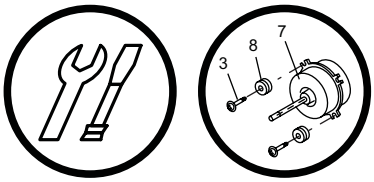
FR NL DE EN IT

Boiler connection kit

UTW-KBD*D

for heat pump, Split integrated DHW





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.

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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	< 25 W
Maximum operating pressure	3 bar
Supply voltage	230V - 50Hz
Boiler connection diameter	26 x 34 mm
Flow/return diameter (male)	26 x 34 mm

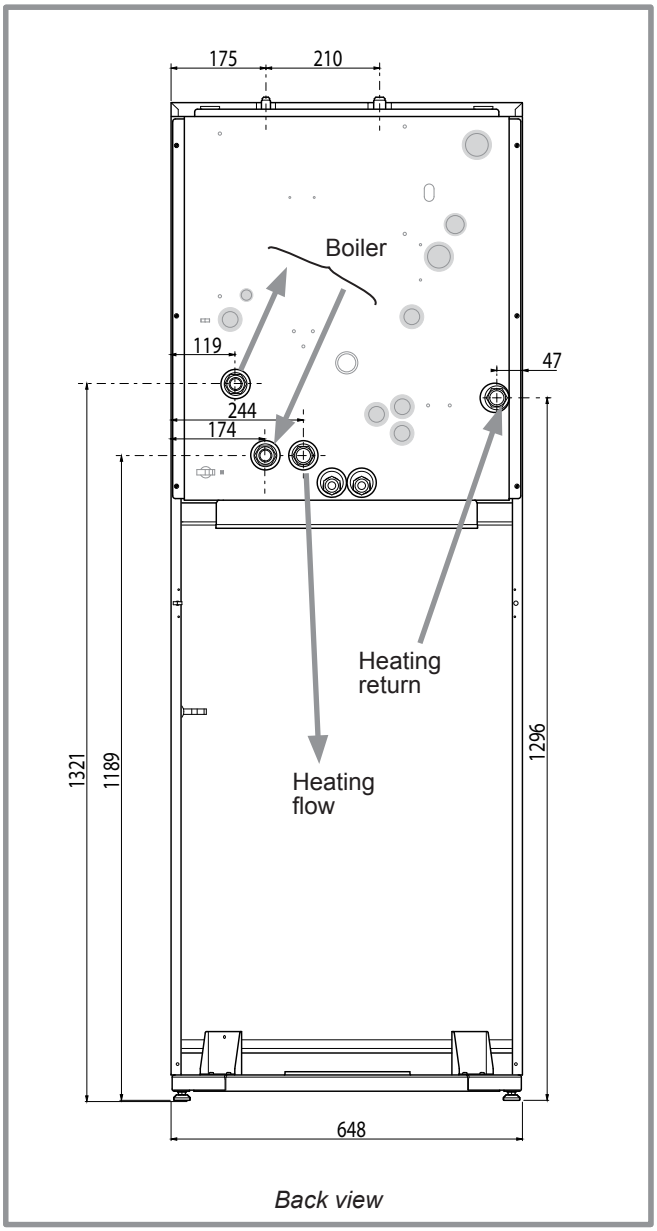


figure 1 - Dimensions in mm

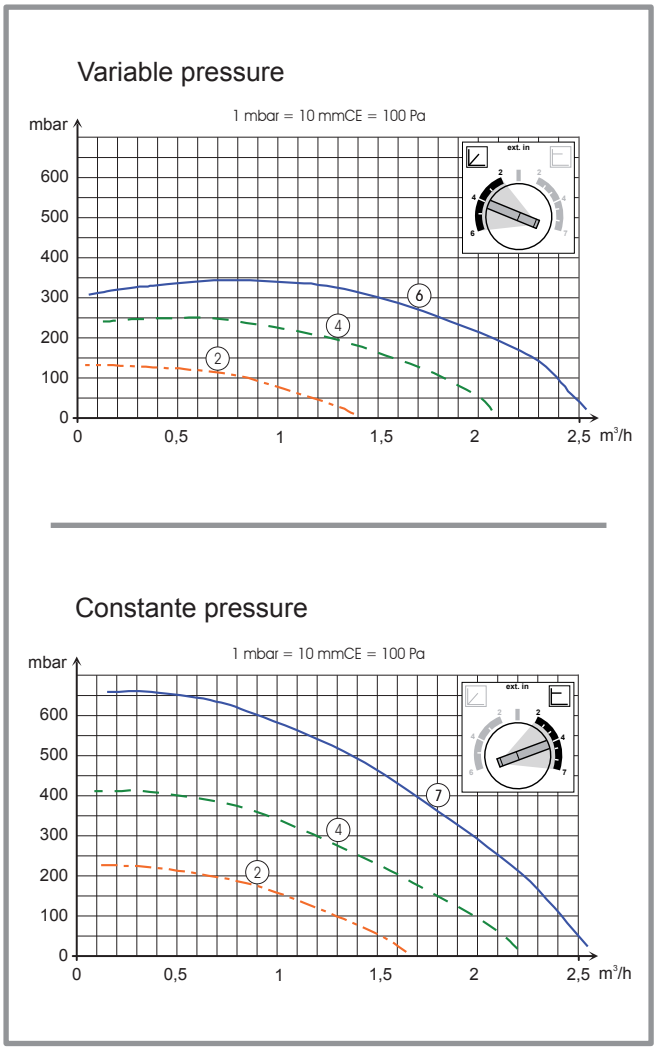


figure 2 - Hydraulic pressures and flow rates available (Hydraulic unit + Boiler connection kit)

1.4 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 HP.**

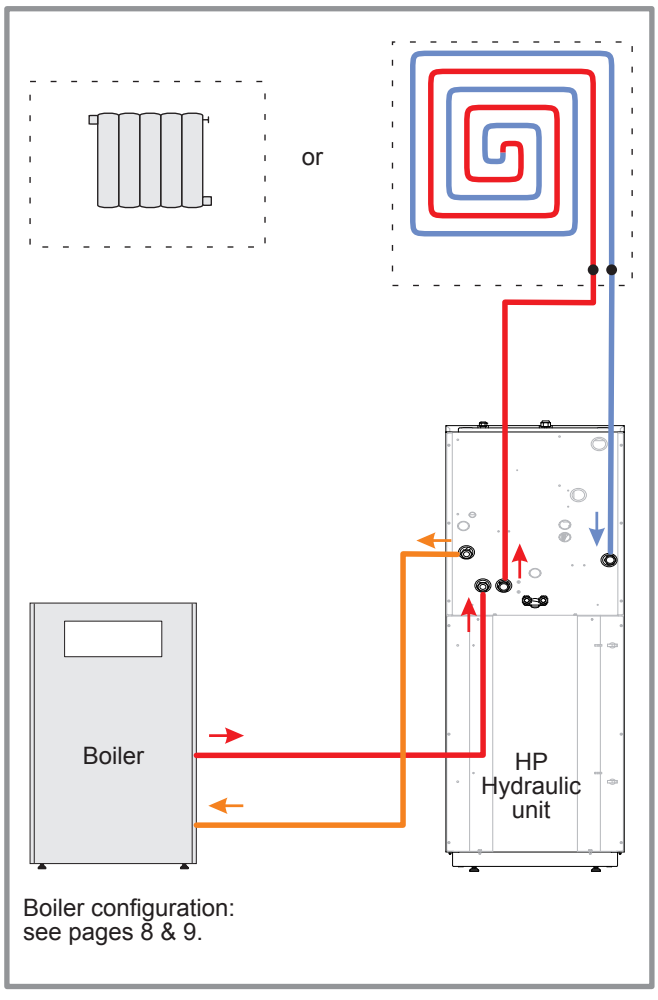


figure 3 - Overall hydraulic layout

1.5 Description

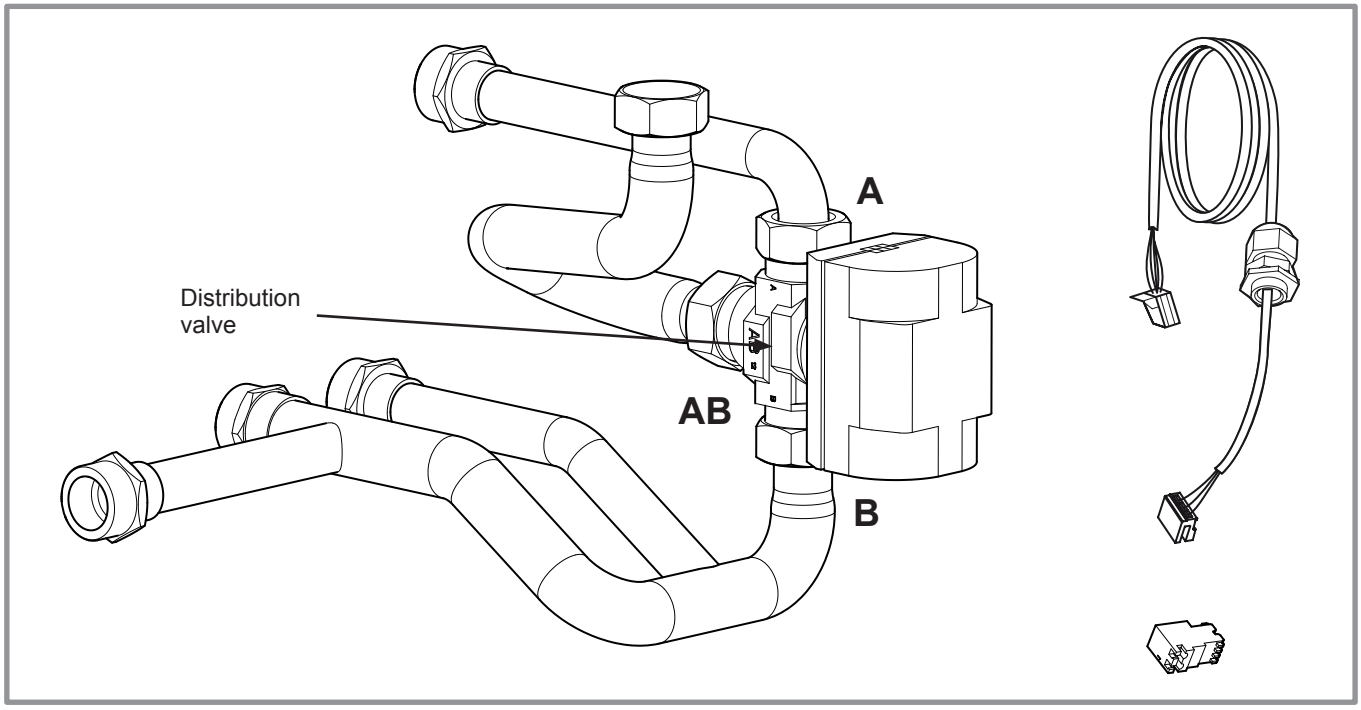


figure 4 - Boiler connection kit

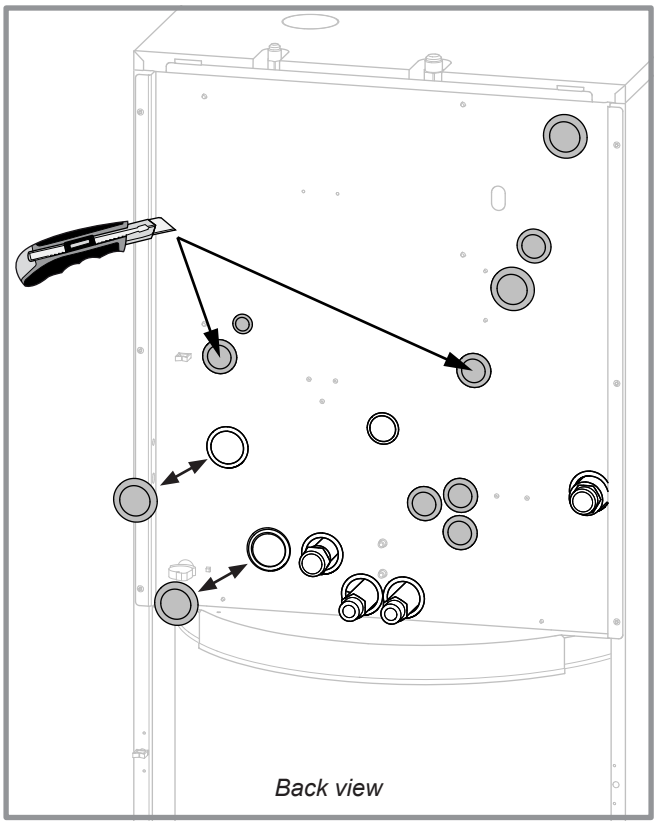


figure 5 - Pipes passages

2 Installation instructions

2.1 Hydraulic connections

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

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).

• **Fitting the boiler connection kit** (figure 6)

- Replace the cable grommet by the cable grommet included inthe kit (see figure 5, page 4).
- Remove the front panel.

• **1** - Take out the expansion vessel.

• **2** - Remove and suppress the exchanger's flow pipe.

• **3** - Install the boiler connection kit.

☞ **Carefully comply with the direction for fitting the distribution valve.**

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

B : way B open: heat pump operating alone.

• **4** - Make an incision in the insulator and clamp the flow sensor on the facility's flow pipe. Apply adhesive tape on each side of the incision.

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.

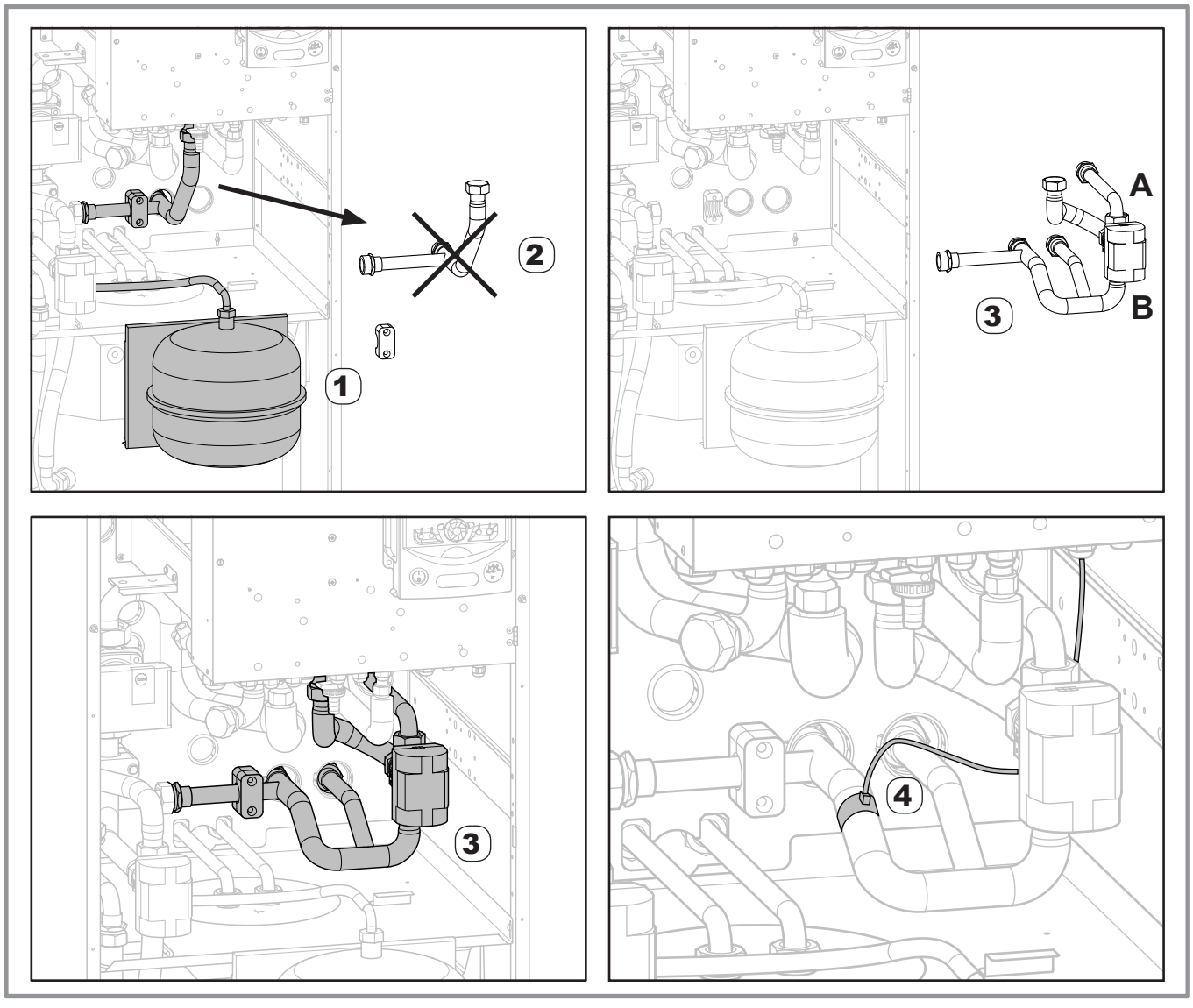
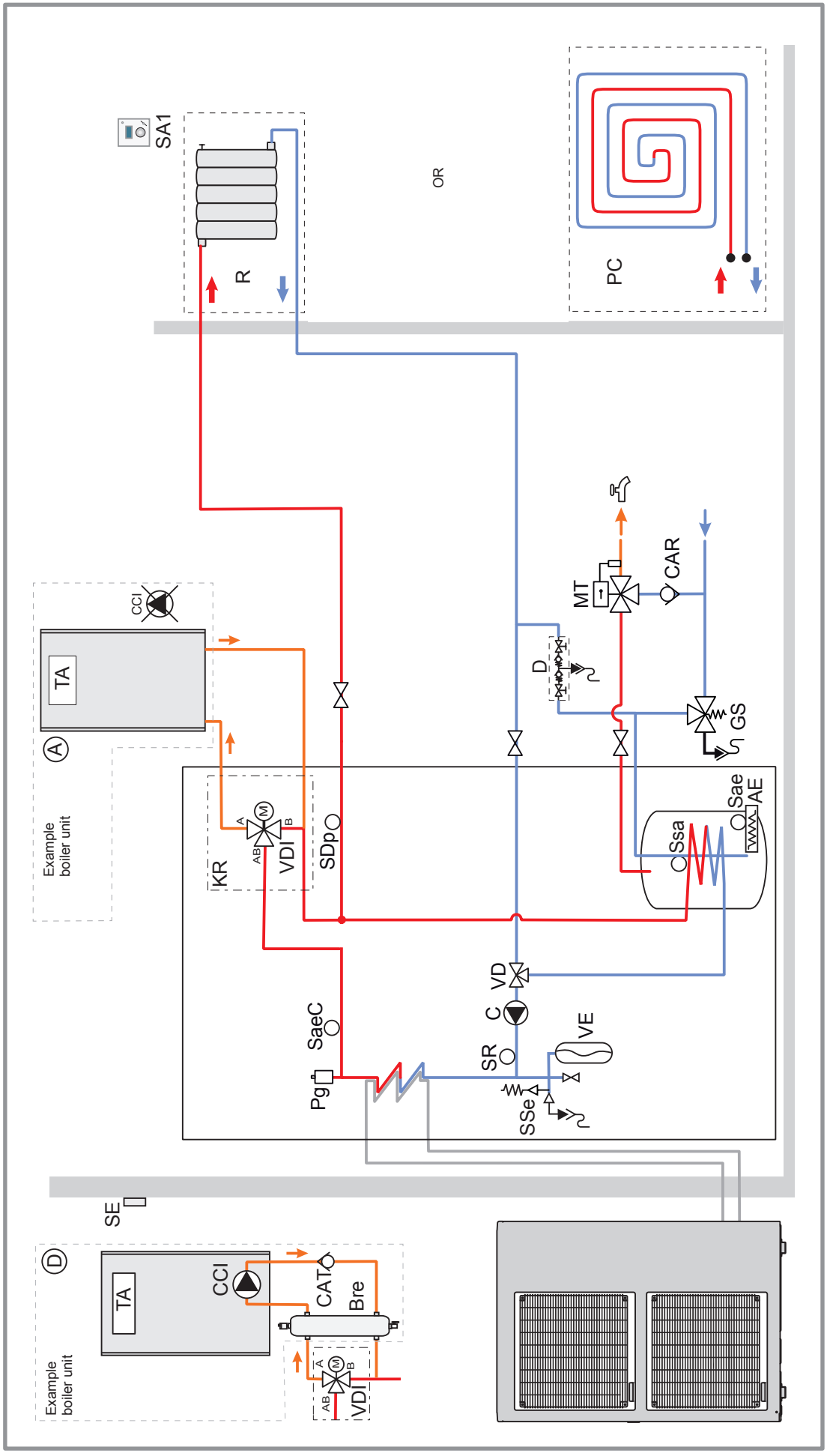


figure 6 - Fitting the boiler connection kit

2.2 Overall hydraulic layout

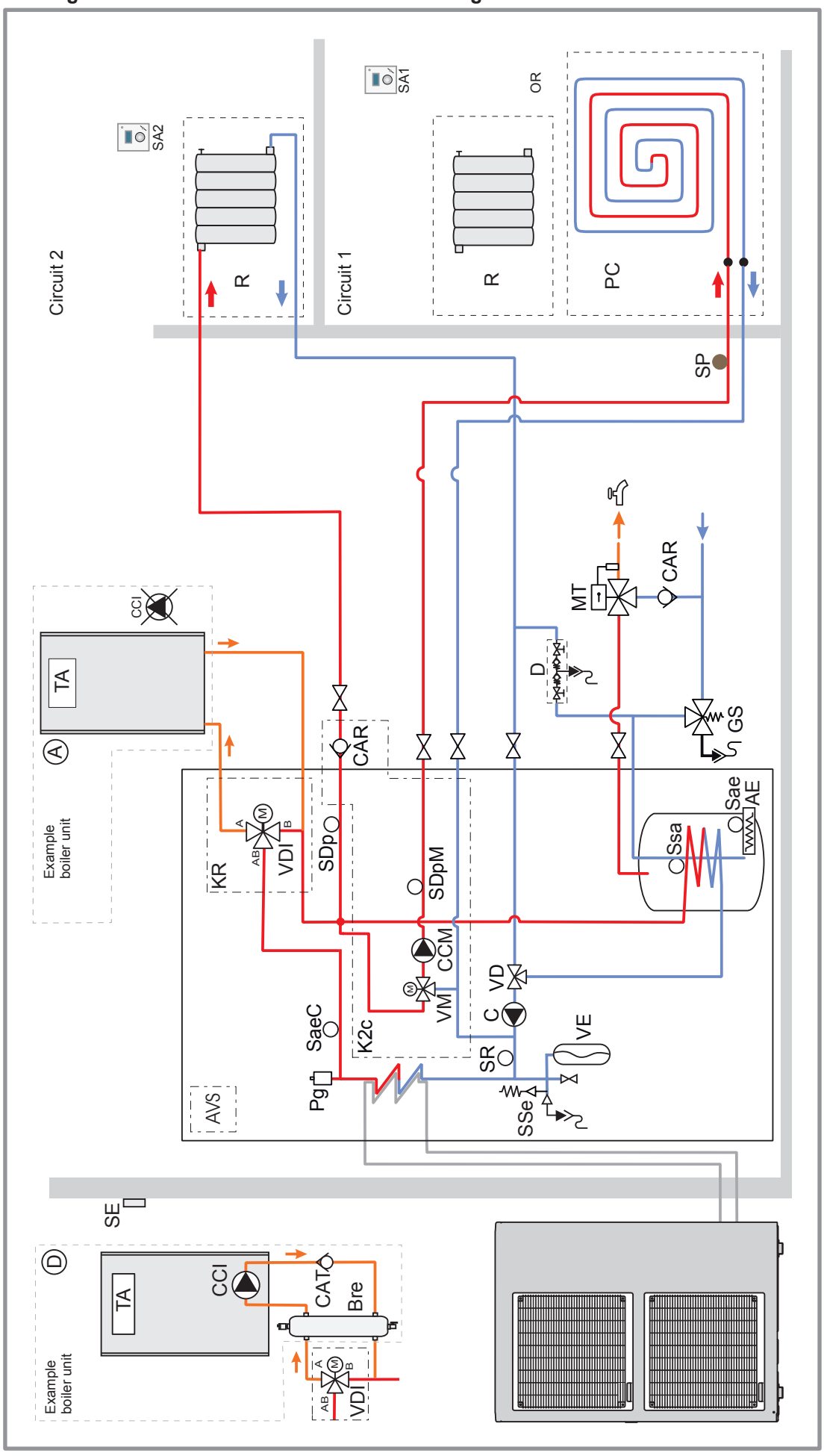
• Configuration 3 : Boiler connection and 1 heating circuit.



Legend :

AE - Hot water electrical backup
AVS - Extension board, 2 circuits
BD - Disconnection bottle
C - Heating circulation pump HP
CAR - Non-return valve
CAT - Anti-gravity feed valve
CCI - Heating system circulation pump built into the boiler
CCM - Mixed-circuit heat pump
D - Shut-off
GS - Safety unit
K2c - 2nd circuit kit
KR - Boiler connection kit
MT - Thermostatic mixer valve
PC - Floor heating system
Pg - Bleeder valve
R - Radiators
SA1 - Room thermostat circuit 1 (option)
SA2 - Room thermostat circuit 2 (option)
Sae - Temperature safety of DHW electrical back-up
SaeC - Temperature safety (heating back-up option)
SDp - Initial sensor PAC
SDpM - Mixed-circuit initial sensor
SE - Outdoor sensor
SP - Heated floor thermal safety fuse
SR - Return sensor
Ssa - DHW sensor
TA - Boiler room thermostat terminals
VD - Distribution valve
VDI - Distribution valve (deviation boiler)
VE - Expansion vessel
VM - Mixer valve

• Configuration 4 : Boiler connection and 2 heating circuits.



Legend :

AE - Hot water electrical backup
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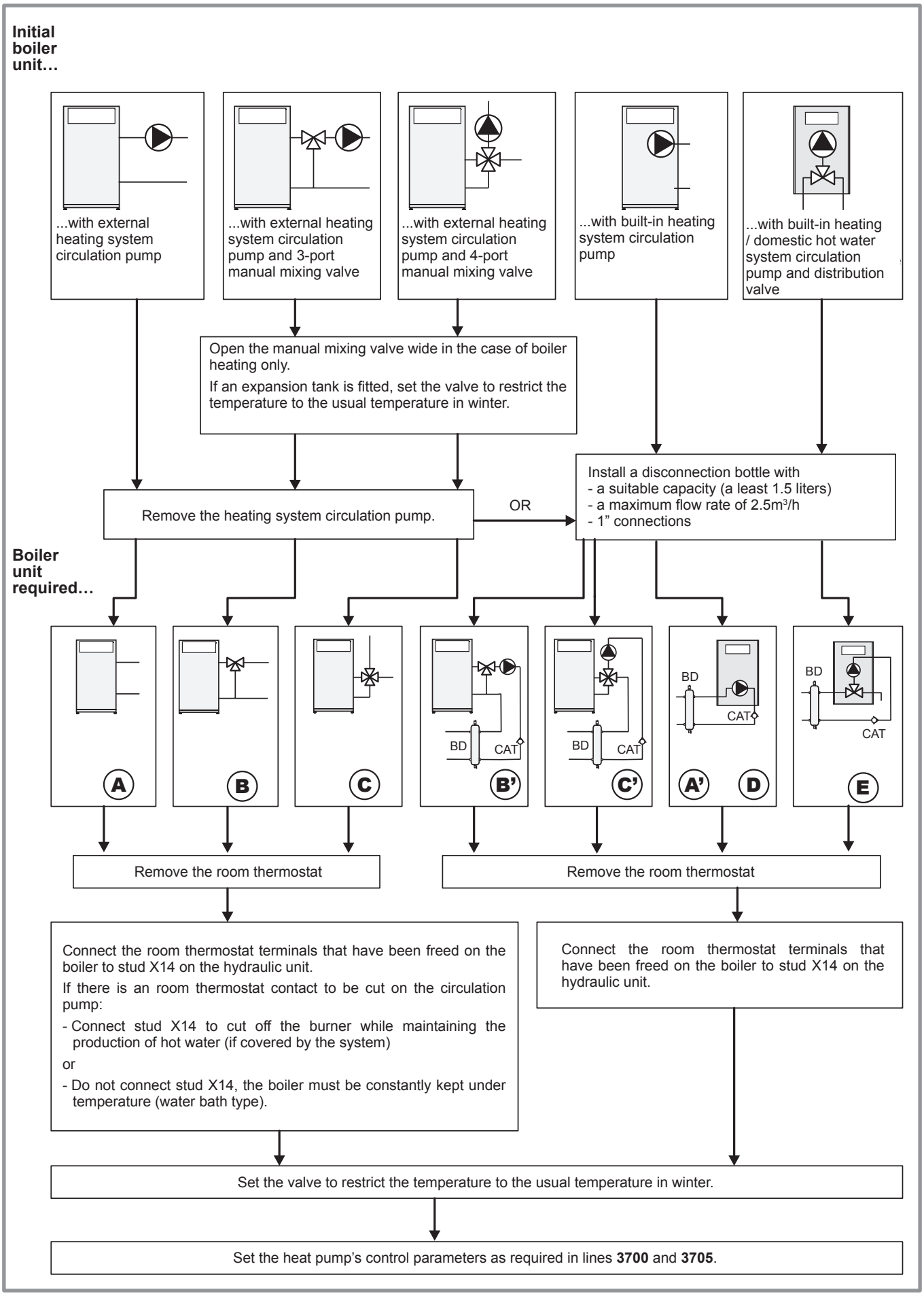
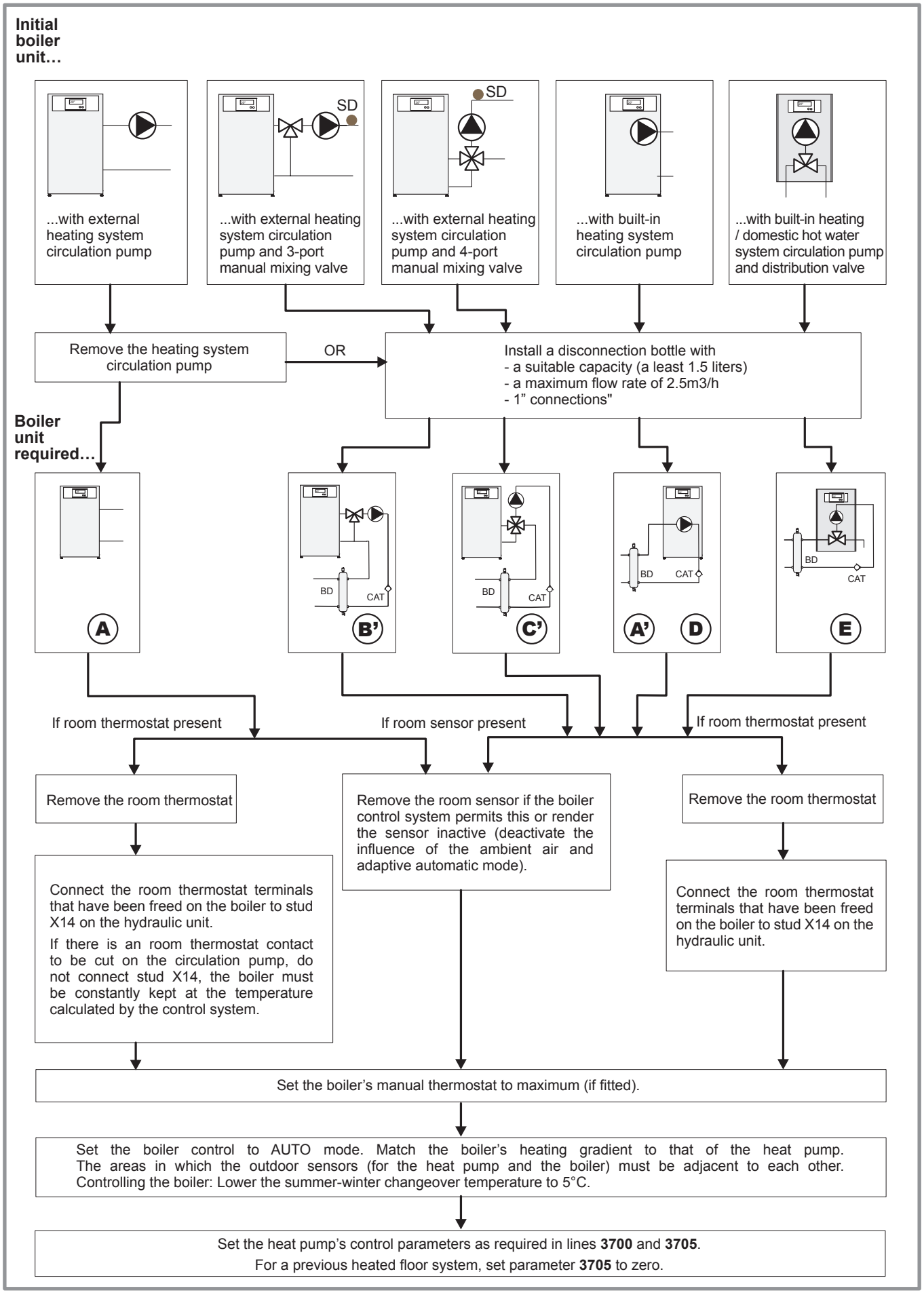
VDI - Distribution valve (deviation boiler)
VE - Expansion vessel
VM - Mixer valve

2.3 Boiler configuration - Unregulated boiler

☞ **Not suitable for an installation with a heated floor.**



2.4 Boiler configuration - Regulated boiler



2.5 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:

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

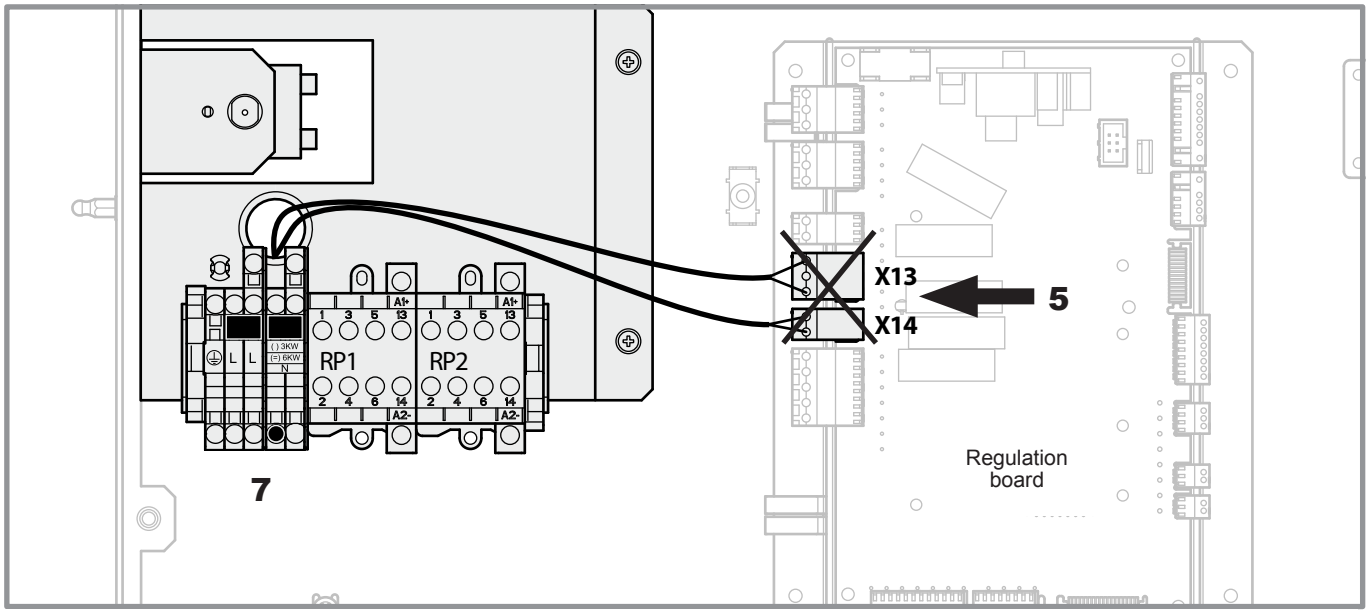


figure 7 - Disconnection of the single phase electrical back-up

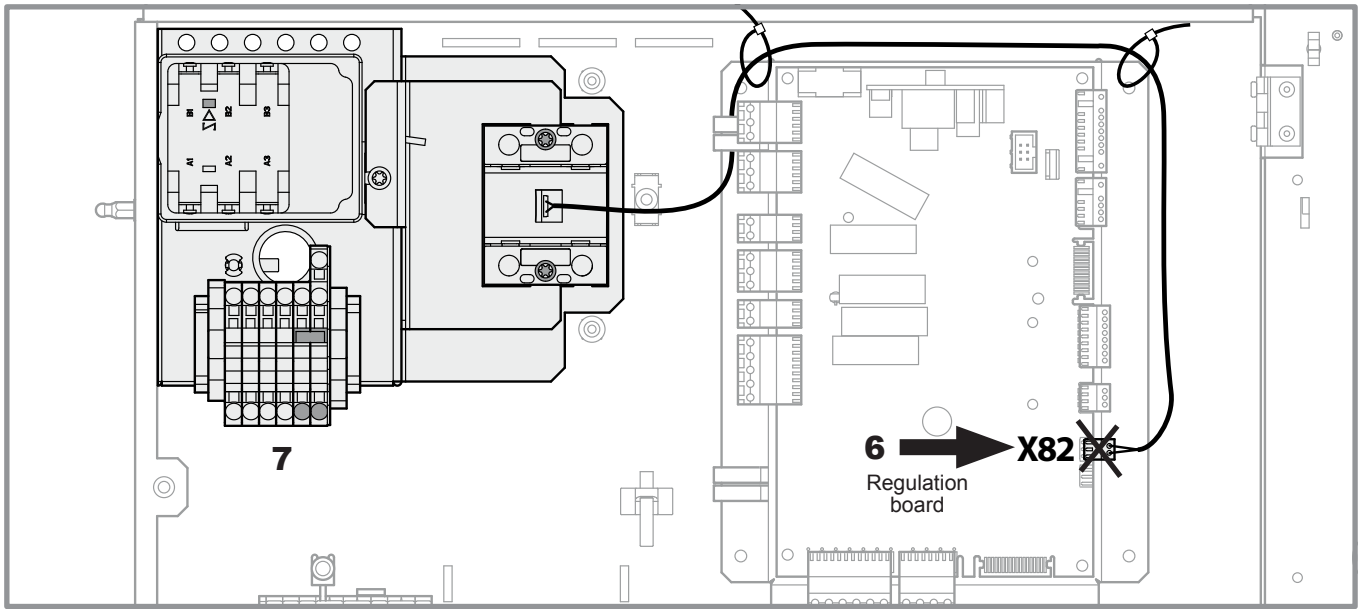


figure 8 - Disconnection of the 3-phase electrical back-up

- **8** - Distribution valve (deviation boiler) on the **X13** connector.
- **9** - 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.

2.6 Pre-utilization check

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

2.6.1 Boiler connection operating test

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

☞ **Do not forget to reset the parameter to "Off" after the test.**

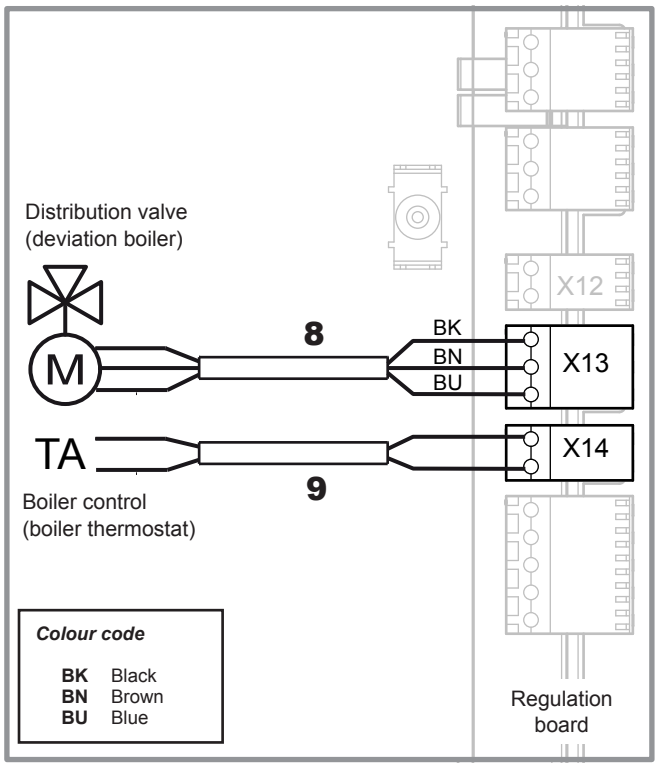


figure 9 - Electrical wiring

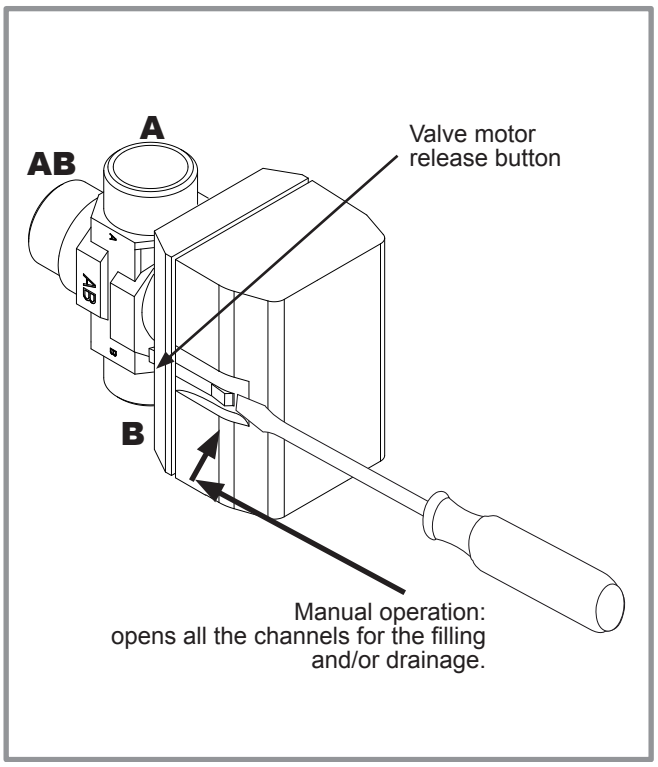


figure 10 - Distribution valve

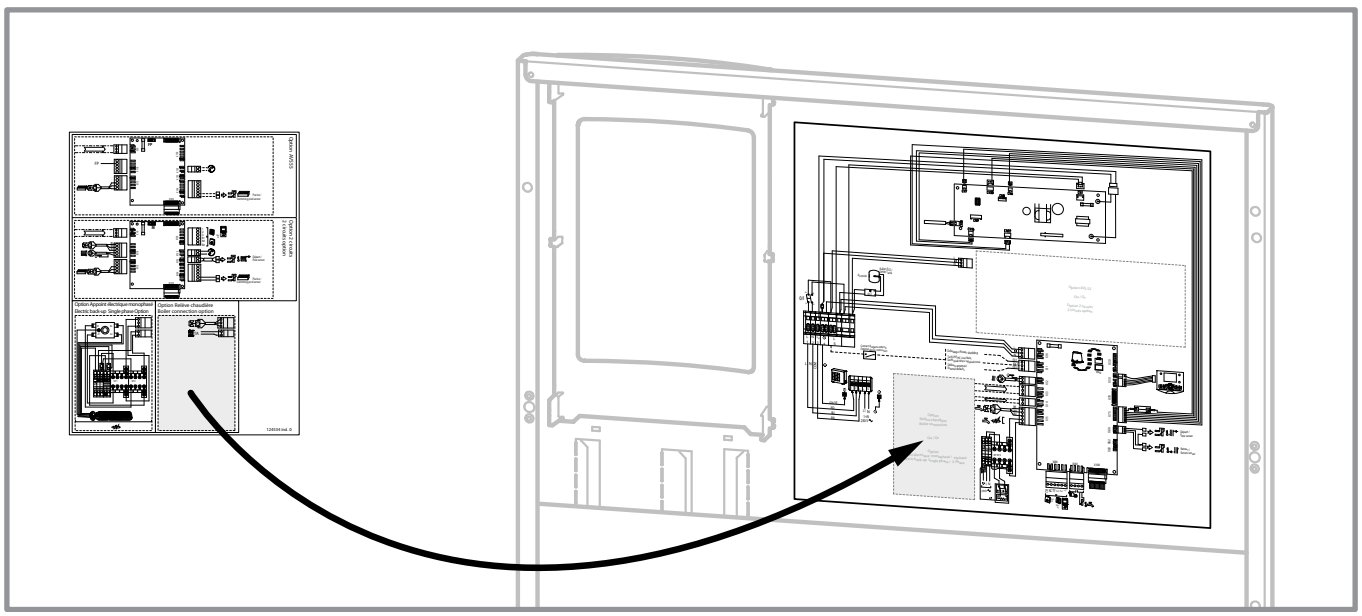


figure 11 - Electrical wiring label

3 Spare parts

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

Nr	Code	Designation	Type	Qty
1	142735	Gasket	26x34	03
2	184088	Pipe of valve		01
3	184089	Pipe		01
4	988109	Valve		01
5	150322	Motor		01
6	184090	Pipe		01
7	110865	Connector	2 studs	01
8	109695	Bundle		01
9	157326	Cable grommet		02

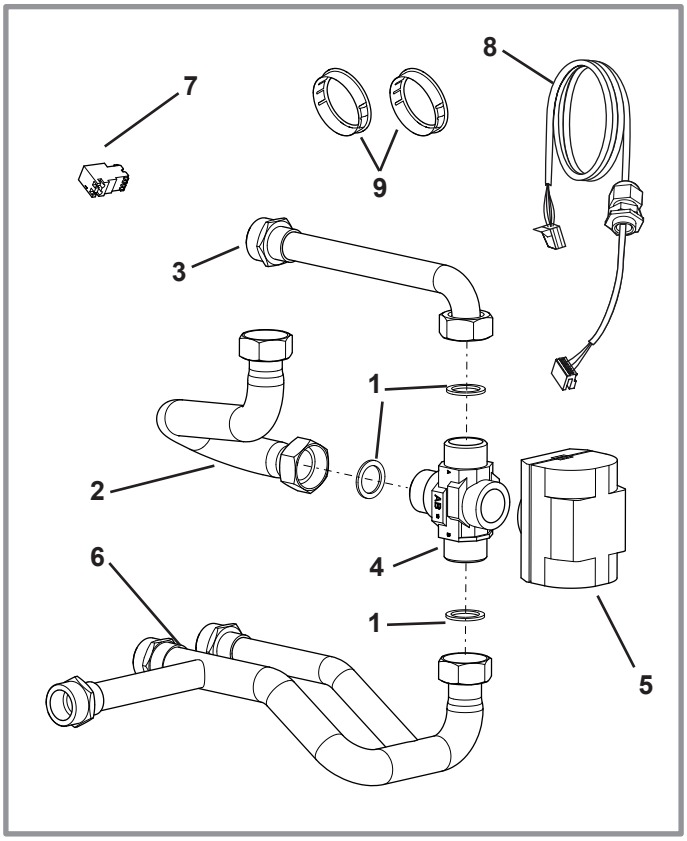


figure 12 - Spare parts Boiler connection kit

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