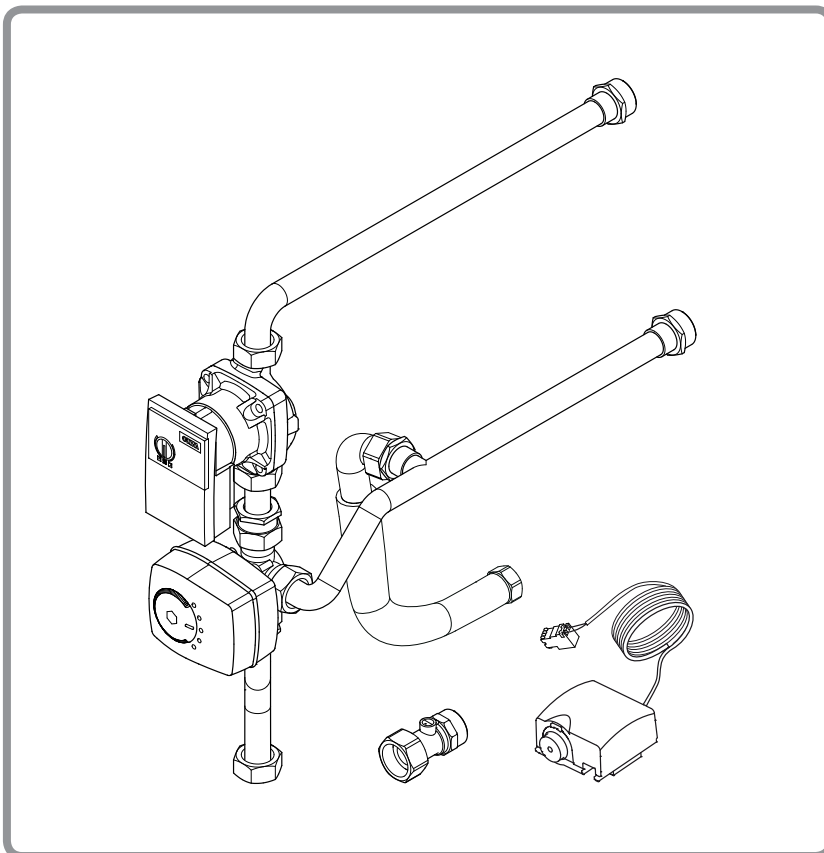
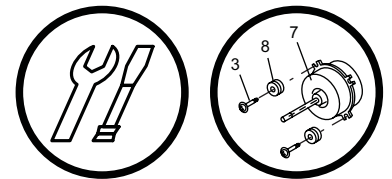


2nd circuit kit UTW-KZD*E

for heat pump, Split integrated DHW



☞ This manual primarily concerns the installation and connection of the second circuit kit.
To install and configure the heat pump, please refer to the heat pump's technical instructions manuals.



Installation instructions

**intended for the
professional technician**

these must be kept safe
for subsequent consultation

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:** 2nd circuit 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 control of 2 heating circuits requires the installation of the 2nd circuit and Regulation extension kit (code UTW-KRE*D).

This corresponds to the preset configurations **2** and **4** on the heat pump's hydraulic unit's regulator (line 5700).

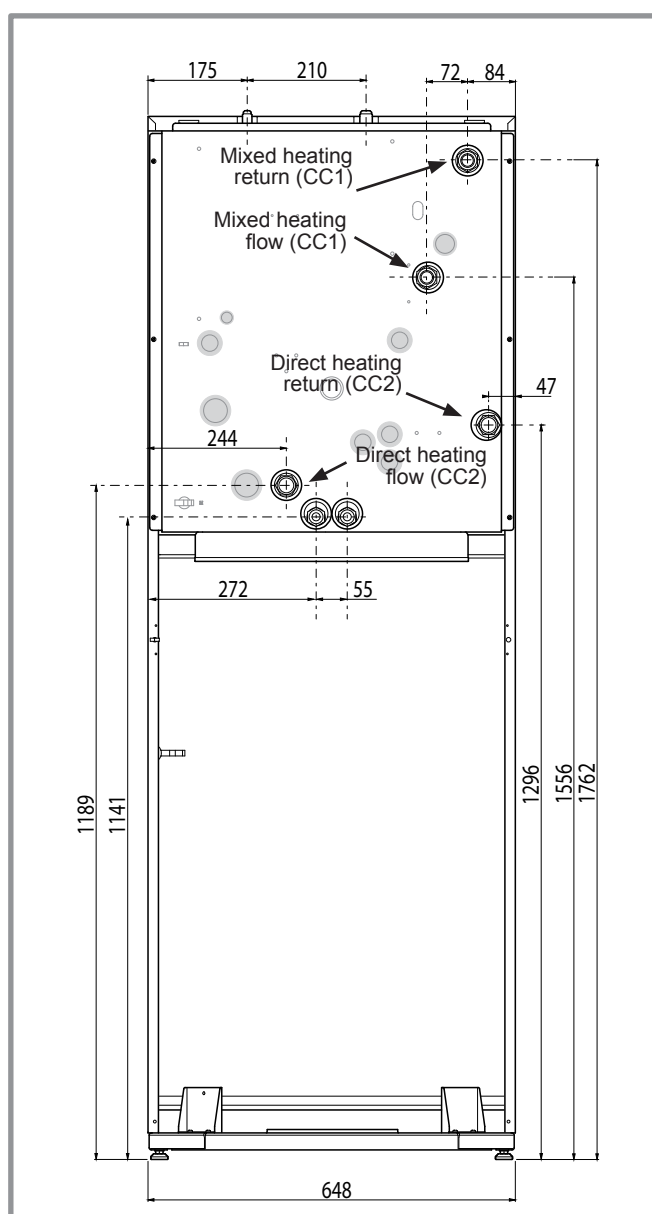


figure 1 - Dimensions in mm

1.3 Specifications

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

Servomotor:

- Travel: 90°.
- Operating time for completely opening or closing the valve: 4 min.

3 way mixing valve:

- Nominal diameter: 26x34 mm.
- KV type: 6.

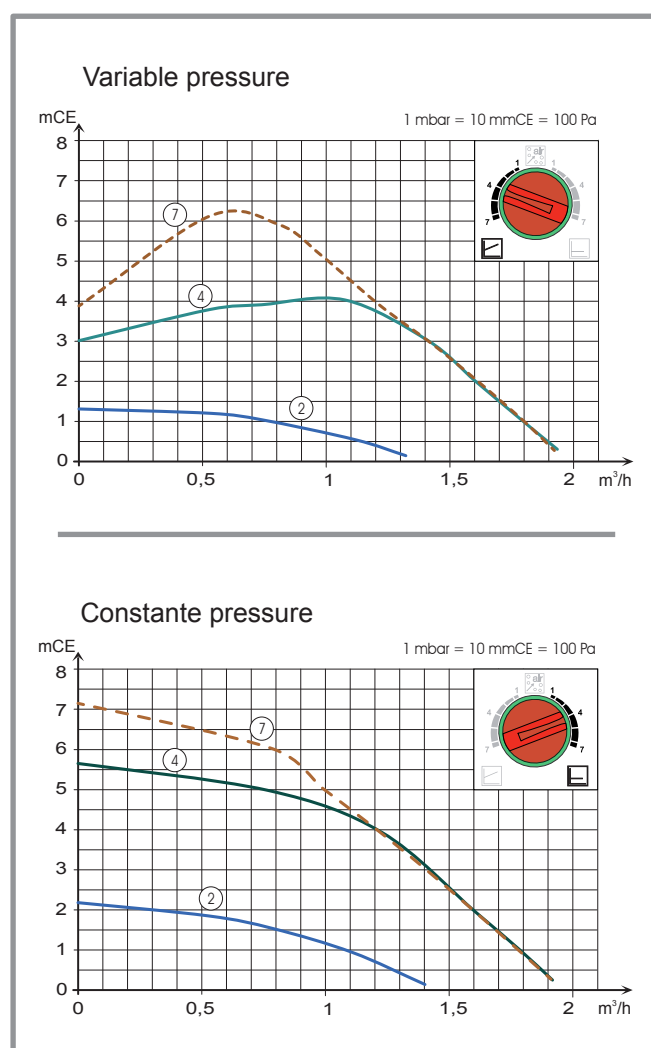
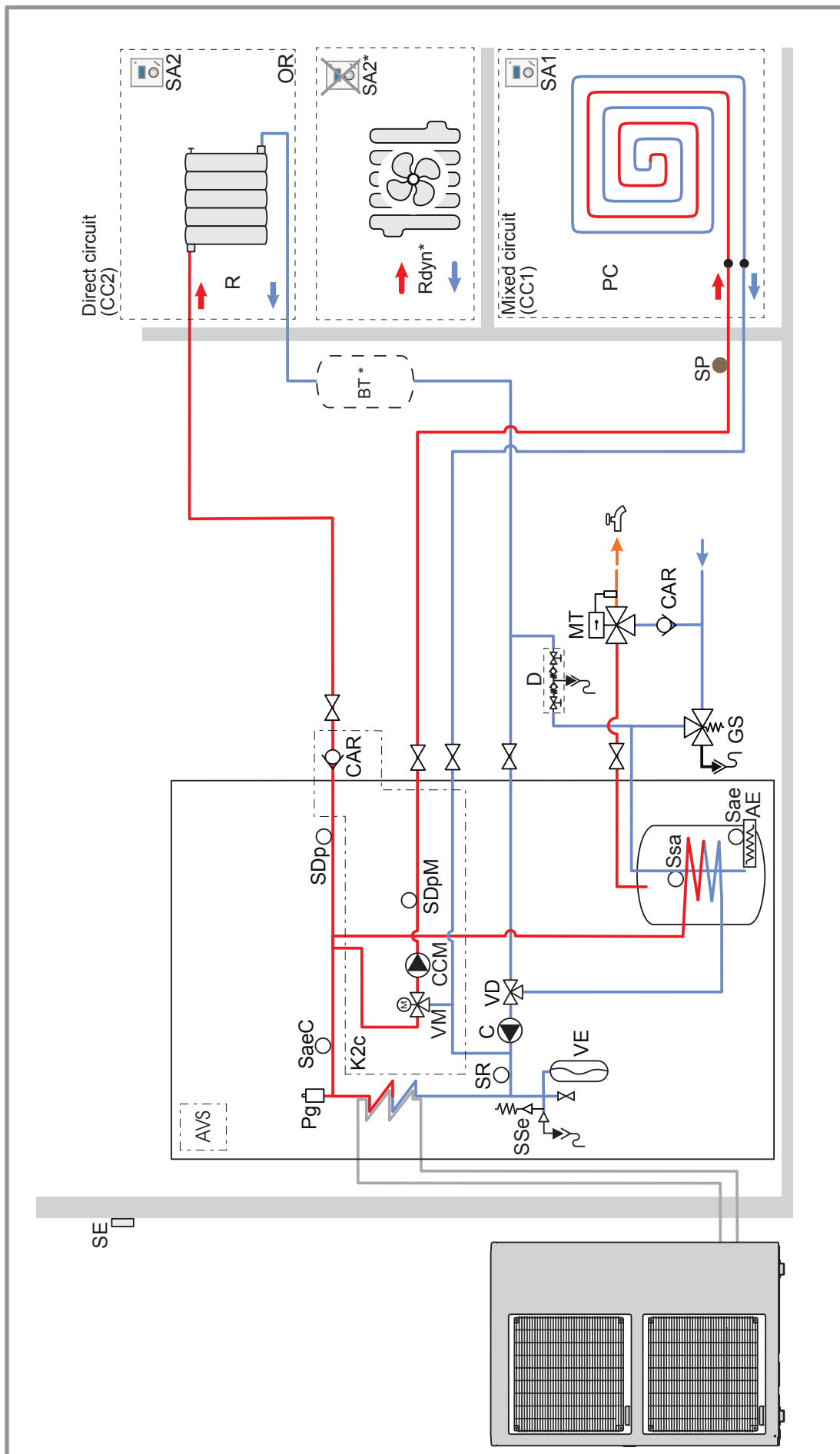


figure 2 - Hydraulic pressures and flow rates available (Hydraulic unit + 2nd circuit kit)

1.4 Overall hydraulic layout

• Configuration 2 : 2 heating circuits



Legend :

AE - DHW electrical backup	SA2 - Room thermostat circuit CC2 (option)	SE - Outdoor sensor
AVS - Extension board, 2 circuits	Sae - Temperature safety of DHW electrical backup	SP - Heated floor thermal safety fuse
CAR - Non-return valve	SaeC - Temperature safety (Heating back-up option)	SR - Return sensor
C - Circulation pump HP	Ssa - Safety valve	Ssa - DHW sensor
CCM - Mixed-circuit heat pump	SDp - Initial sensor HP	SSe - Safety valve
D - Shut-off	SDpM - Mixed circuit initial sensor	VD - Distribution valve
		VE - Expansion vessel
		VM - Mixer valve

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).

• Installing the hydraulic kit

- Remove the front plate and cover.
- Replace the cable grommet with membrane by the cable grommet included in the kit (see figure 3).

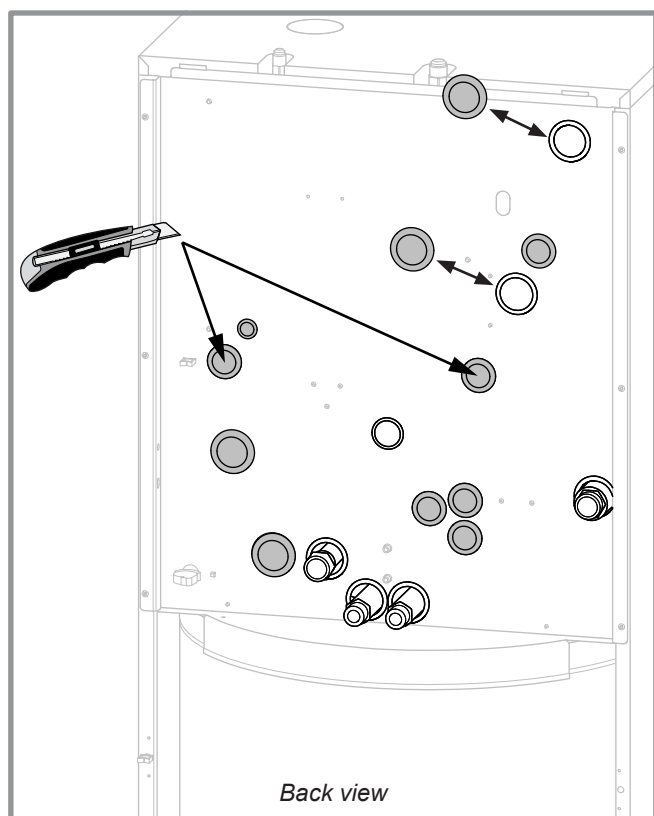


figure 3 - Pipes passages

- **1** - Take out the expansion vessel.
- **2** - Install the 2-circuit kit. Observe the correct flow direction. It is **imperative** to observe direction of assembly of the valve:

Channel **1**: HP flow mixed circuit (CC1).

Channel **2**: mixed heating flow (CC1).

Channel **3**: mixed heating return (CC1).

- ☞ **When the motor turns counter-clockwise, the mixing control valve is opened (hotter).**

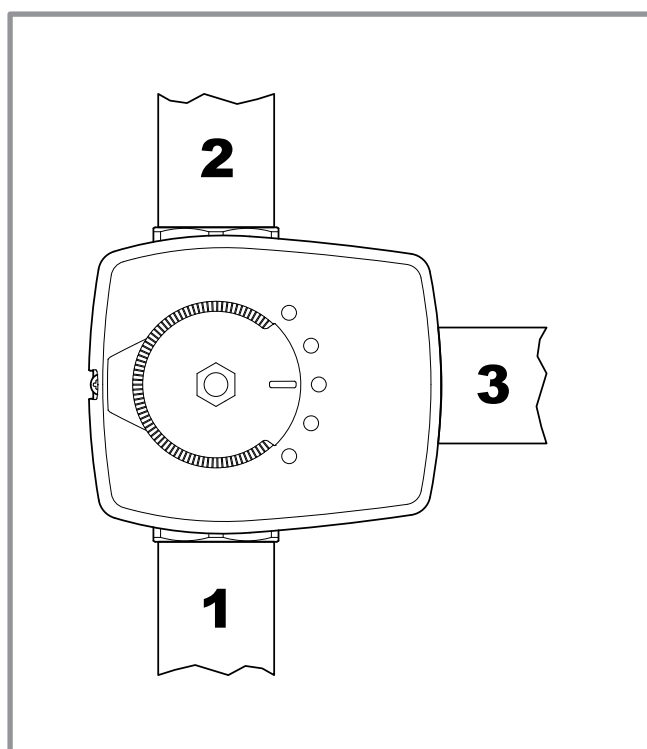


figure 4 - Mixing valve

- **3** - Install the hose. Put back the expansion vessel.
- **4** - Fitting the non-return valve on the direct circuit flow (CC2).

Remark:

- **5** - Fitting the flow sensor. Fix the heating flow temperature sensor with the tightening ring to the CC1 mixed circuit flow piping.

Good contact must be maintained between the heating flow sensor and the pipework. The contact surface between the pipework and the sensor must be free of rust and paint and the fixing collar must be tightened well.

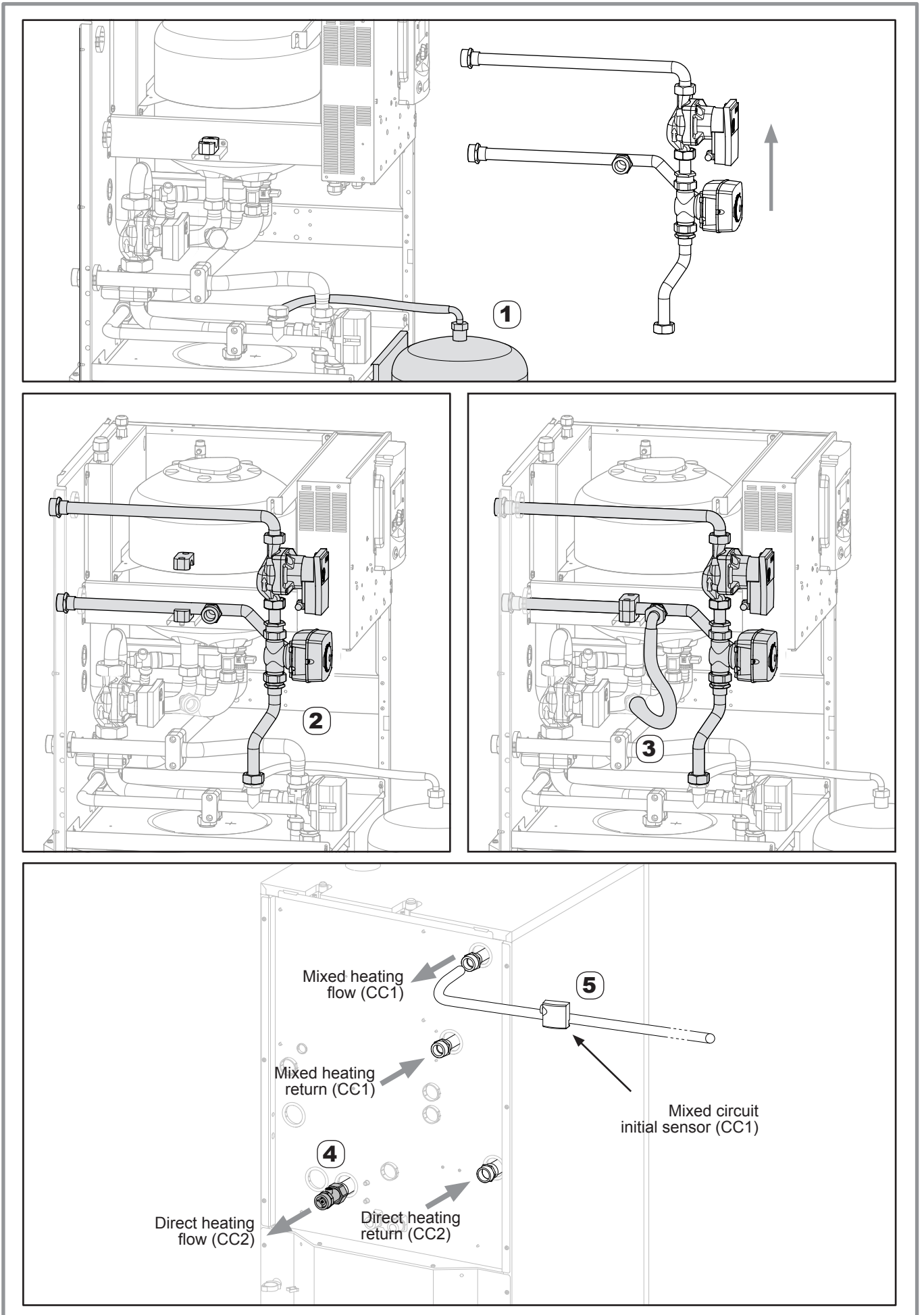


figure 5 - Installing the hydraulic kit

2.2 Installing the extension board

- Please refer to the instructions for the extension regulation kit (code UTW-KRE*D).

2.3 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, connect the floor heating safety device into the connector of the floor heating pump (X110 - CC1: Mixed circuit, X12 - CC2: Direct circuit).

Make the following connections:

- **6** - Circulation pump CC1 (Mixed-circuit).
- **7** - Mixer valve.
- **8** - Initial sensor.

Good contact must be maintained between the heating flow sensor and the pipework. The contact surface between the pipework and the sensor must be free of rust and paint and the fixing collar must be tightened well.

- **9** - Shunt on "M".
- **10** - Interconnection between RVS and AVS.
- **11** - Power supply AVS regulation board. Remove the insulator of the AVS board's power connector. Connect the power connector to the AVS board. Please refer to the instructions for the extension regulation kit.
- **12** - Room thermostat or Room control unit.
- **()** - Apply the kit's label on the inside of the hydraulic unit's front plate, over the wiring label.

2.4 Pre-utilization check

- Configure the parameter **5700** on a configuration **2** or **4**.
- Please refer to the manual provided with the HP.

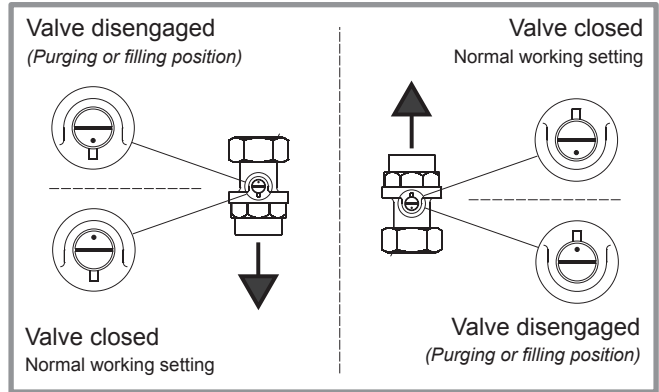


figure 7 - Non-return valves

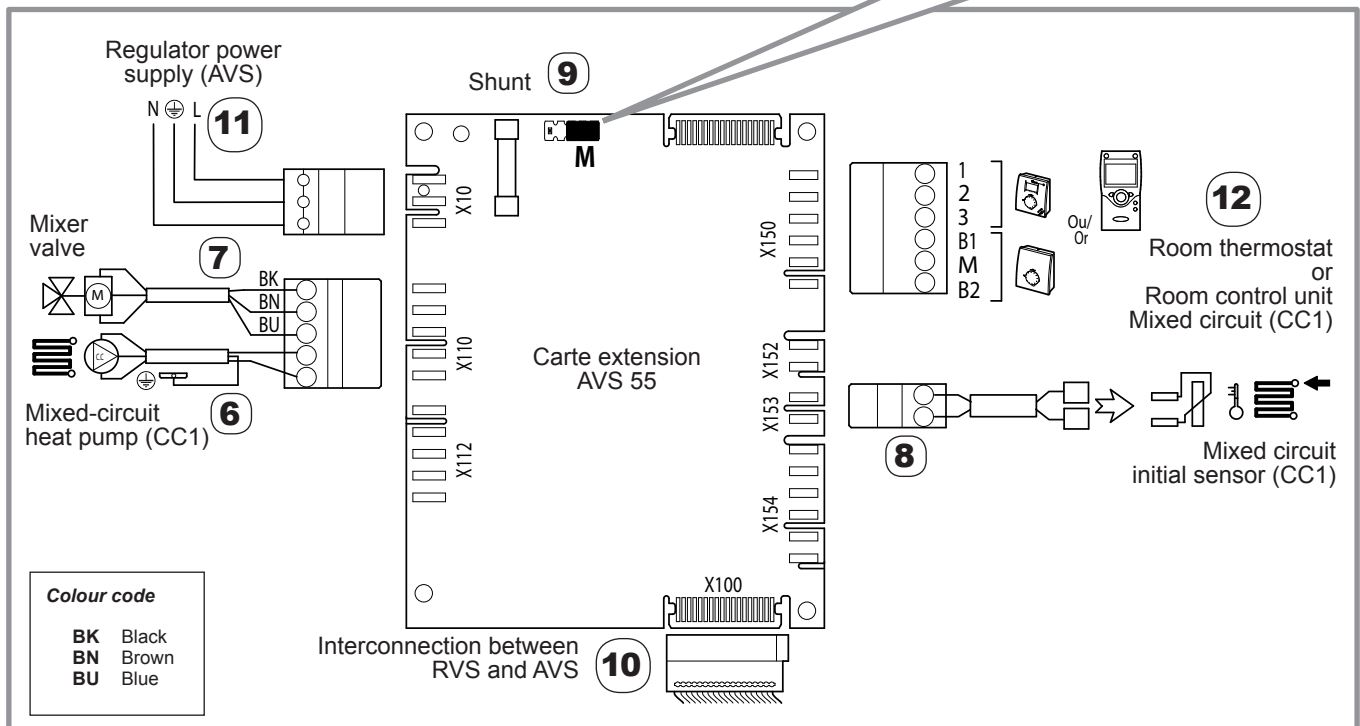
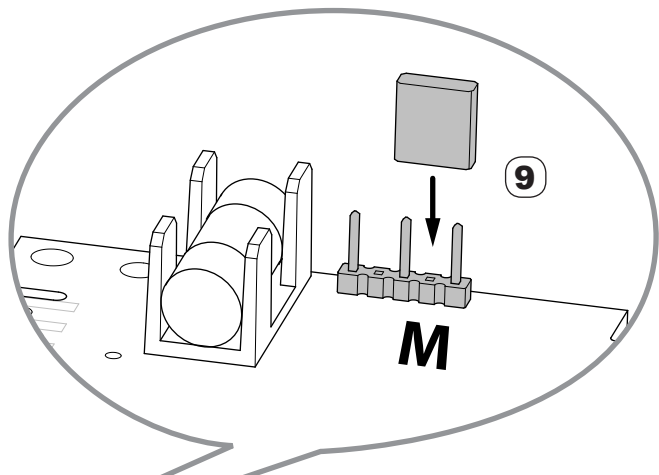


figure 6 - Electrical connection on AVS 55 extension board

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.

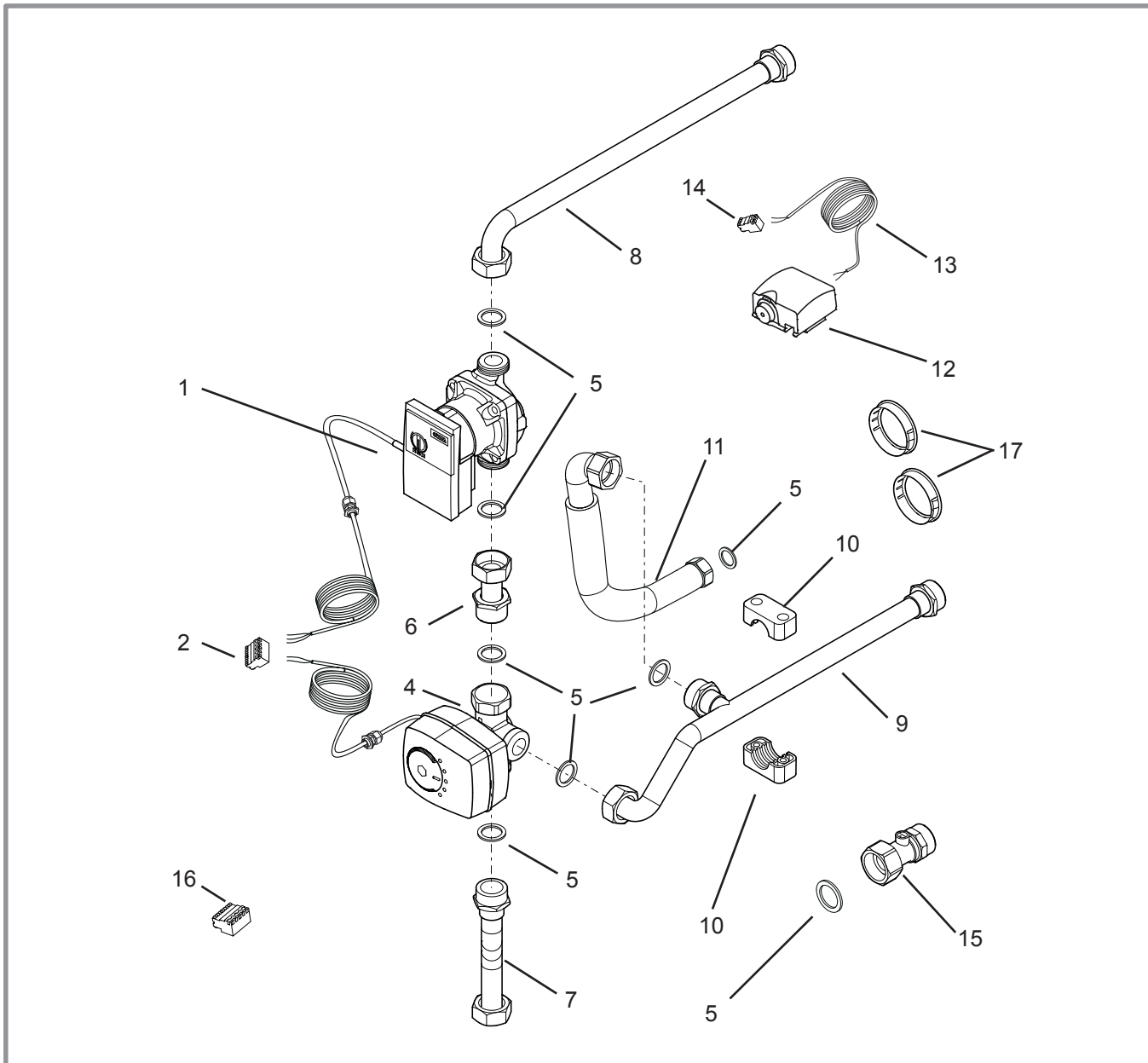


figure 8 - Spare parts 2nd circuit kit

Nr	Code	Designation	Type	Qty	Nr	Code	Designation	Type	Qty
1	909909	Circulation pump		.01	10	110611	Collar		.02
2	110869	Connector	5 studs	.01	11	132243	Hose		.01
4	988108	Mixing valve		.01	12	198746	Flow sensor	QAD36/101	.01
5	142735	Gasket	26x34	.08	13	109517	Sensor bundle		.01
6	184094	Pipe		.01	14	110870	Connector	2 studs	.01
7	184091	HP flow pipe		.01	15	110047	Non-return valve		.01
8	184093	Flow pipe		.01	16	110867	Connector	6 studs	.01
9	184092	Return pipe		.01	17	157326	Cable grommet		.02



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.