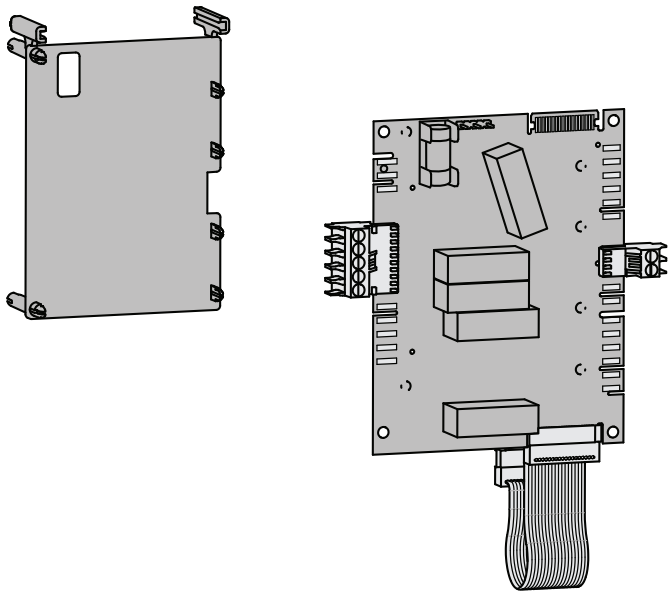
WATERSTAGE

Document n° 1542-3 ~ 23/01/2014

FR NL DE **EN** IT

Regulation extension kit AVS 55

UTW-KRE*D



Installation instructions

intended for the professional technician

these must be kept safe for subsequent consultation

☞ **These instructions apply to the installation and connection of the extension regulation kit.**
To install and configure the heat pump, please refer to the heat pump's technical instructions manuals.

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Matériel sujet à modifications sans préavis
Document non contractuel.

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

1 Description of the equipment

1.1 Package

• **1 package:** Regulation extension 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 management of the 2nd heating zone option, pool,… requires the installation of the extension board kit.

1.3 Description

1. Board bracket.
2. Extension board AVS 55.
3. Pilot-wire connector.
4. Interconnection batt.
5. Modem / pool connector.

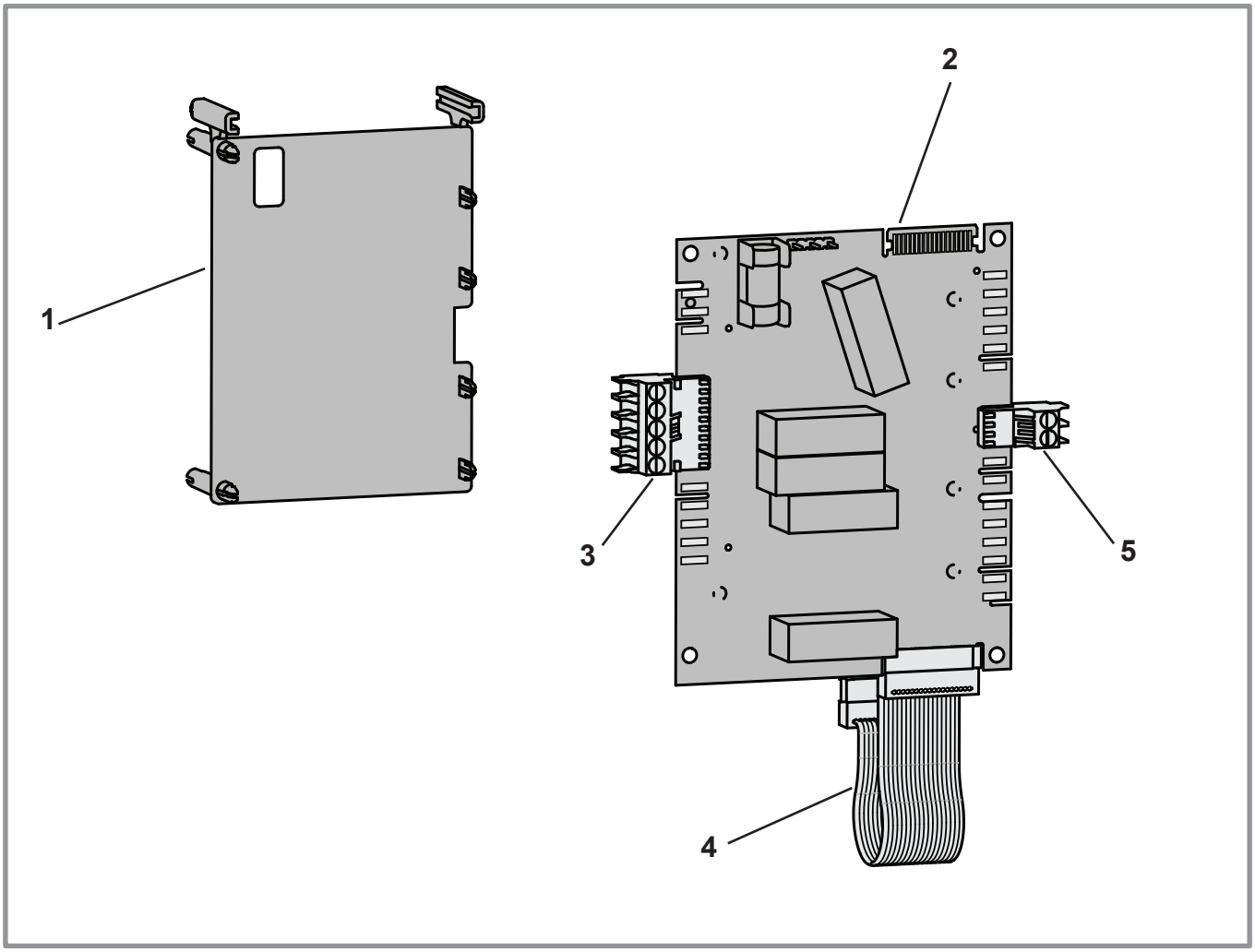


figure 1 - Description

2 Installation instructions

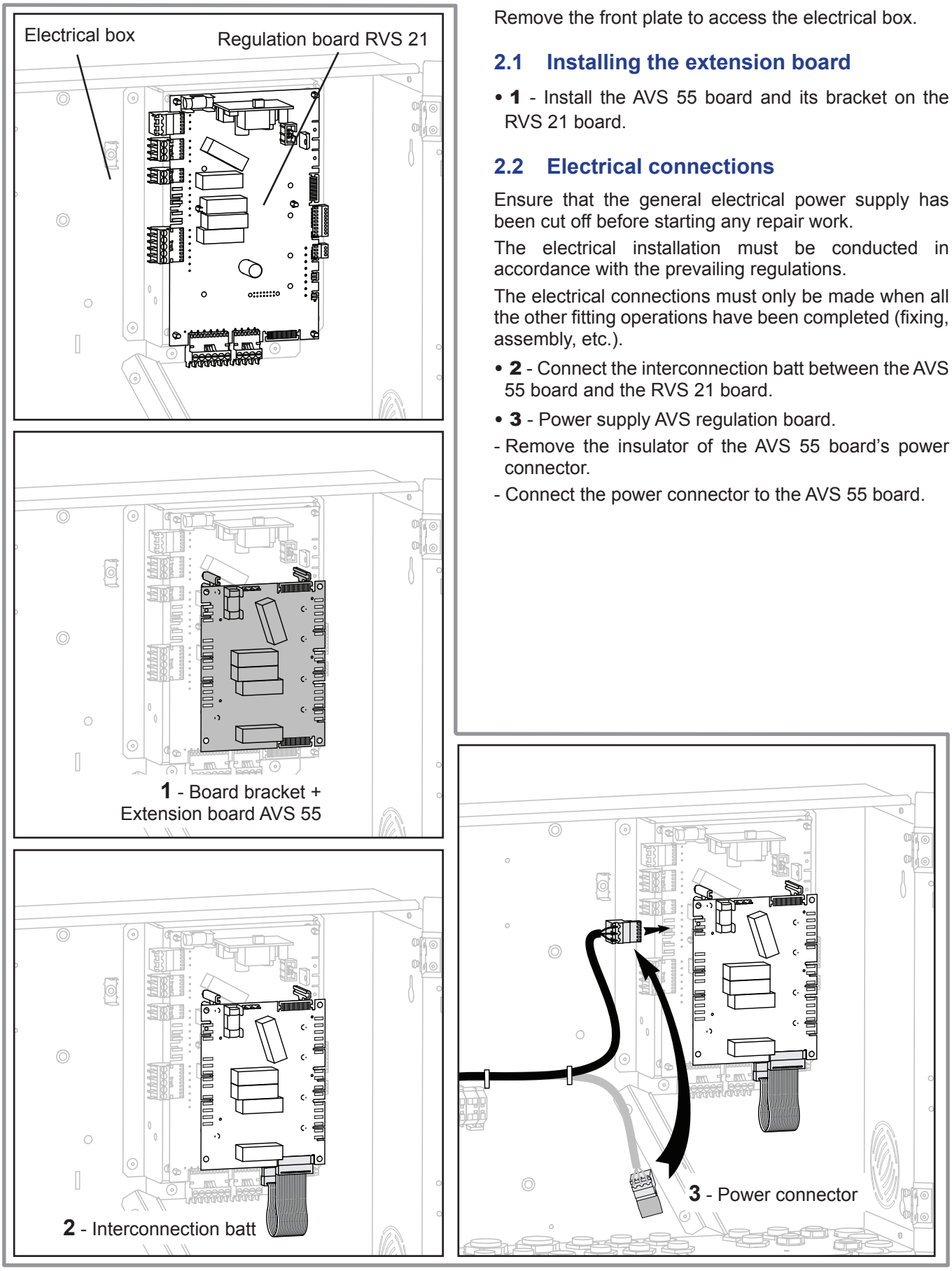


figure 2 - Installing the extension board AVS 55

Remove the front plate to access the electrical box.

2.1 Installing the extension board

• **1** - Install the AVS 55 board and its bracket on the RVS 21 board.

2.2 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.).

• **2** - Connect the interconnection batt between the AVS 55 board and the RVS 21 board.

• **3** - Power supply AVS regulation board.

- Remove the insulator of the AVS 55 board's power connector.
- Connect the power connector to the AVS 55 board.

Boards:

1 - Regulation system RVS 21.

2 - Extension board AVS 55.

Connector:

3 - Power supply regulation board AVS 55.

4 - Pilot-wire / Mixed circuit (2nd circuit kit option).

5 - Pool valve (Swimming pool kit option).

6 - Interconnection batt RVS/AVS.

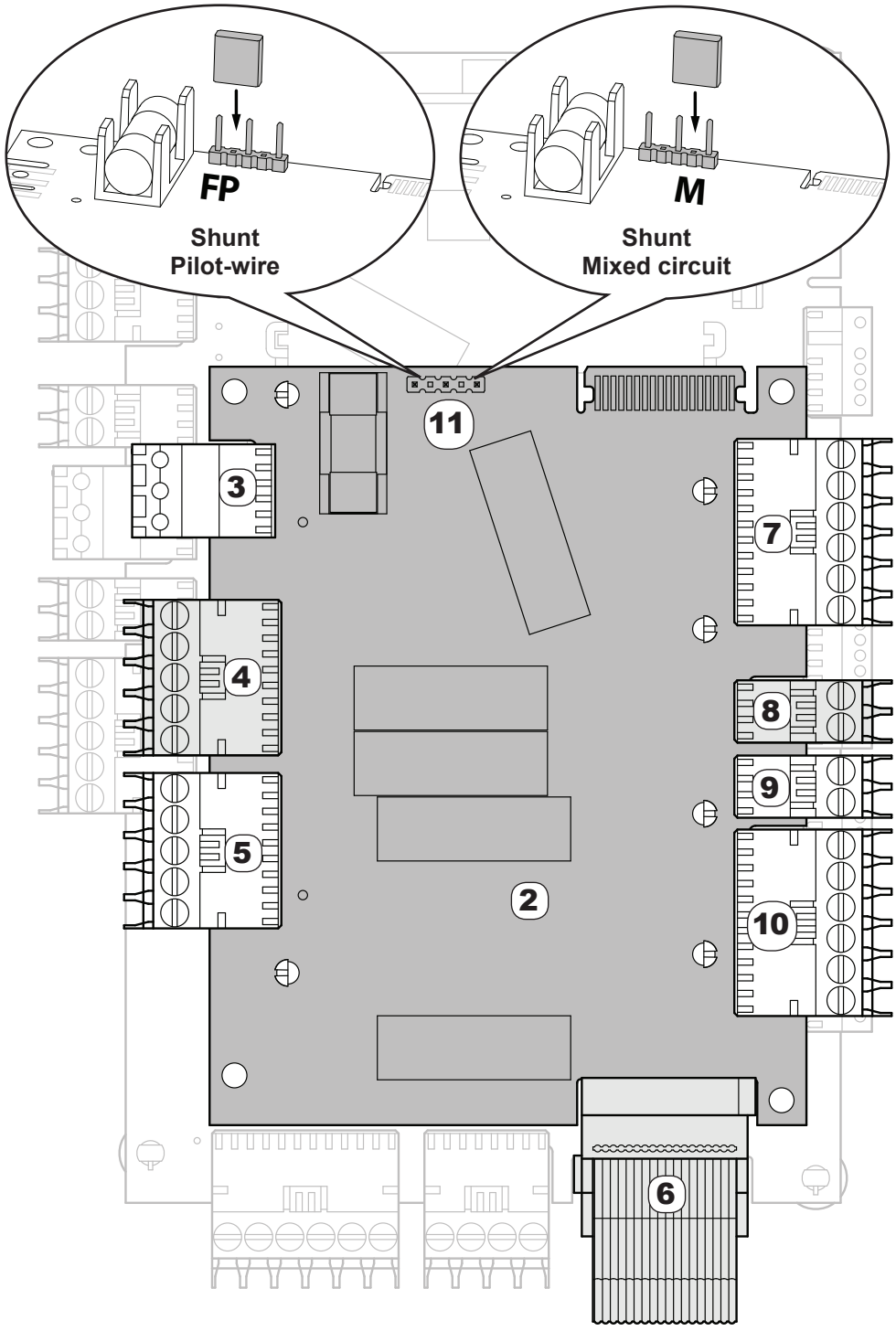
7 - Room thermostat Mixed circuit (2nd circuit kit option).

8 - Telephone modem / Swimming pool.

9 - Mixed flow temperature sensor (2nd circuit kit option).

10 - Pool temperature sensor (Swimming pool kit option).

11 - Pilot-wire Shunt : Mixed circuit (2nd circuit kit option).



Connector 3: on the HP ; connectors 4, 6, 8 supplied with the board (Regulation extension kit option)

figure 3 - Connection to the AVS 55 extension board (accessories and options)

2.3 Pilot-wire

Before making connections, check that the phase-neutral polarity is respected.

Refer to the manual supplied with electric heaters to their electrical connections.

Verify the absence of continuity between the Pilot-wire and other wires:

- Switch off the general electrical supply, leaving all the disconnectors on the electrical panel on "On",
- Verify the absence of continuity between the pilot wire, the neutral and phase (or phases in 3-phase).

The fuse protects the board from an accidental connection of its "pilot wire" on the neutral or phase. A phase / neutral inversion on radiators does not destroy the fuse but the radiators are not correctly controlled.

- It's possible to order up to 15 electric heaters via output "pilot wire".
- The "pilot wire" handles only the hourly operation of radiators (comfort mode / reduced mode commutation and Frost protection mode).
- The comfort temperature setting should be done directly on the radiator(s). The "pilot wire" does not handle the temperature of the radiators. Refer to the manual supplied with the radiator(s).
- The difference between the comfort temperature and the reduced temperature is from 3,5 °C.
- Frost protection temperature is preset at 8°C (parameter 1014).

2.3.1 Connections and Settings

- Connect the pilot wire on the connector **X110** (**Y1** terminal / ref. **4**, figure 3, page 5) through the fuse.
- Put the shunt in position **"FP"** (ref. **11**, figure 3, page 5).
- Configure the **parameter 5700 on a configuration 1 circuit** (menu "Configuration" / Pre-setting 1 : 1 heating circuit with or without electrical back-up or Pre-setting 3 : Boiler connection, 1 heating circuit).

The adjustment parameters of the circuit "pilot wire" are those of the circuit 2 (set CC2 time programme).

- Put the radiators on "**PROG**" mode or "**AUTO**" mode for piloting by the regulation board.
- Stick the label on the electrical panel "DISJONCTEUR PAC A SECTIONNER AVANT TOUTE INTERVENTION SUR LE FIL PILOTE" ("SWITCH OFF THE PAC DISCONNECTOR BEFORE ANY WORK ON THE PILOT WIRE")

2.3.2 Standard orders and corresponding electrical signals

Order	*Corresponding electrical signals*	
Comfort	No signal	
Reduced	Full-wave 230V	
Frost protection	Negative half-wave	

In the absence of signal, radiators operating in comfort mode.

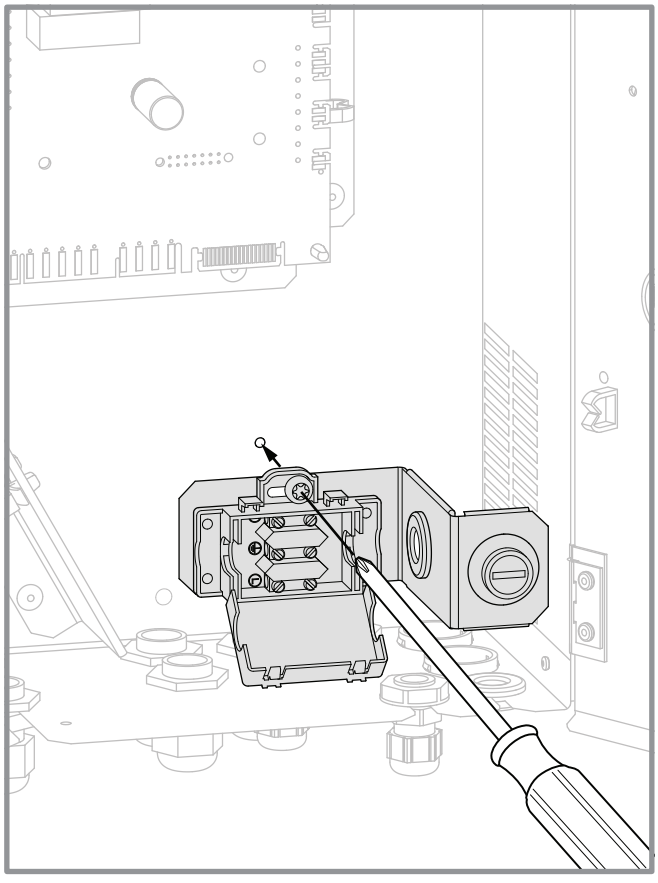


figure 4 - Mounting Fuseholder

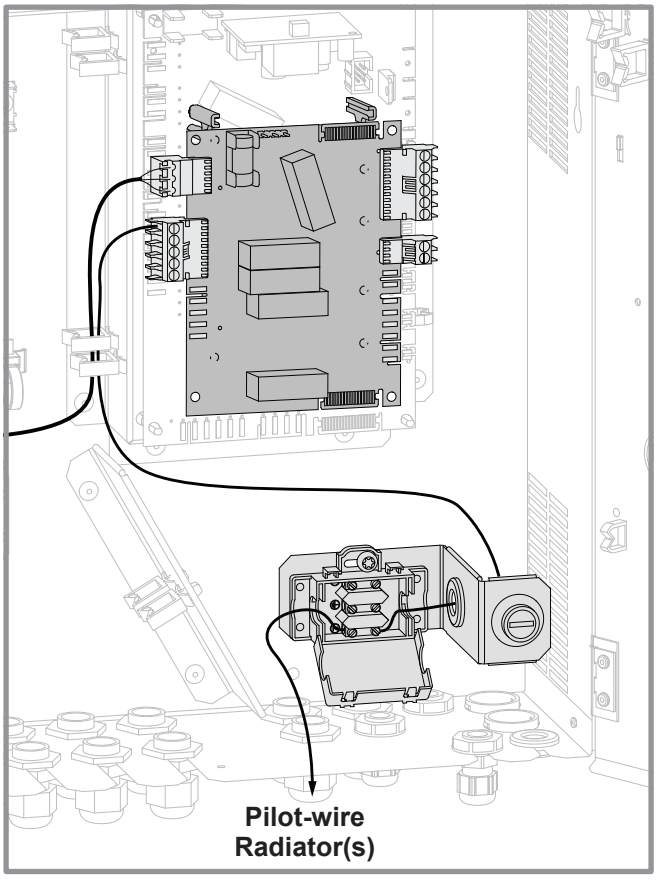


figure 5 - Pilot-wire connections

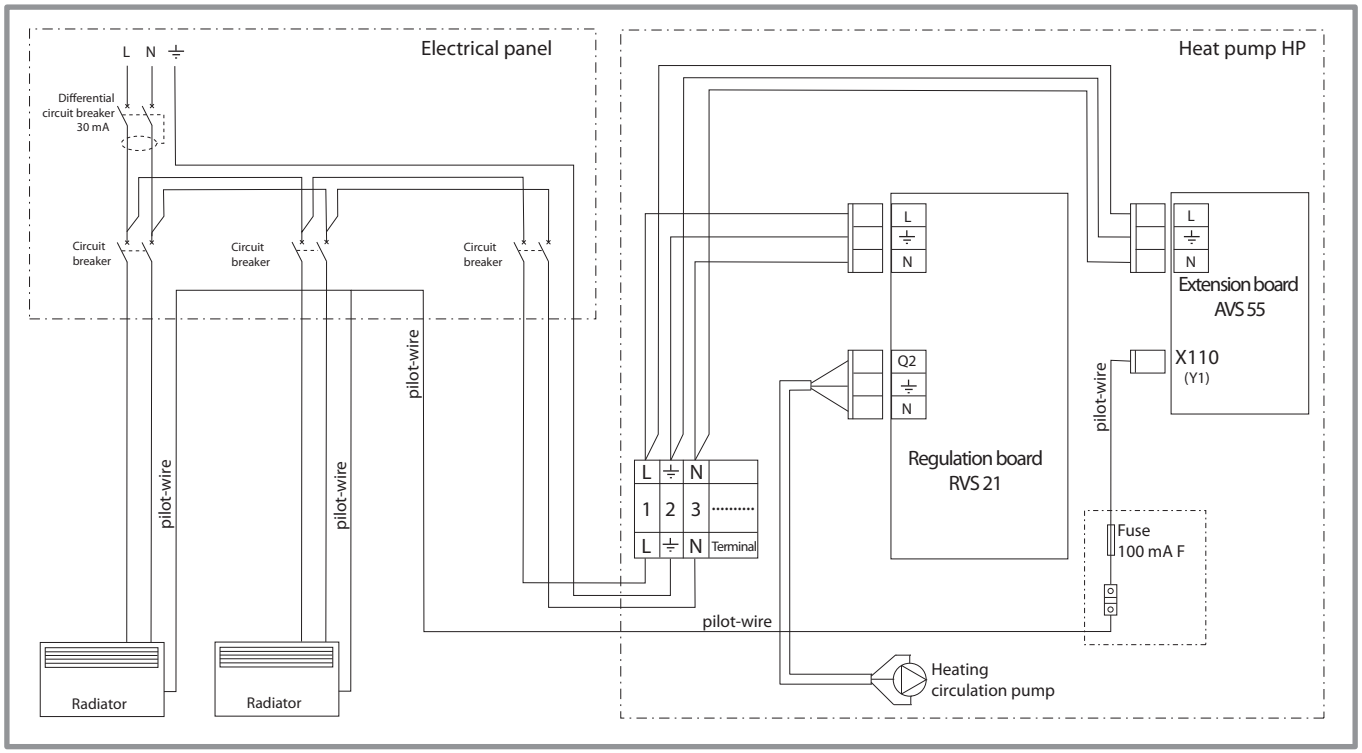


figure 6 - Schematic wiring diagram of wiring pilot wire

2.4 Telephone modem

2.4.1 Operating principle

It is possible to command the switching of the heating mode to reduced mode (or frost protection mode) (and vise versa) on the heat pump using a modem contact

☞ **Warning : When the “Modem” function is used, the pool kit is not possible any more.**

2.4.2 Connecting and set to

- Connect the outlet of the telephone control to the **X152** connector.
- Set to : “Configuration” menu, lines 6420 and 6421. Please refer to the manual provided with the heat pump.

In accordance with the setting, any temperature requests from the heating circuits and the DHW are ignored or activated.

This function is only active in automatic mode.

☞ **Other(s) setting(s) (depending software version)**

• **Before version 5.8** (parameter 6220)

The telephone command switches the current heat pump settings to "**frost protection mode"** (Protection mode) (and vise versa).

• **From version 5.8** (parameter 6220)

Factory setting : the telephone command switches the current heat pump settings to **"reduced mode"** (and vise versa). Depending user needs, it possible to modify this setting : refer settings **900** (CC1) and **1200** (CC2) - factory setting : **"Reduced"**.

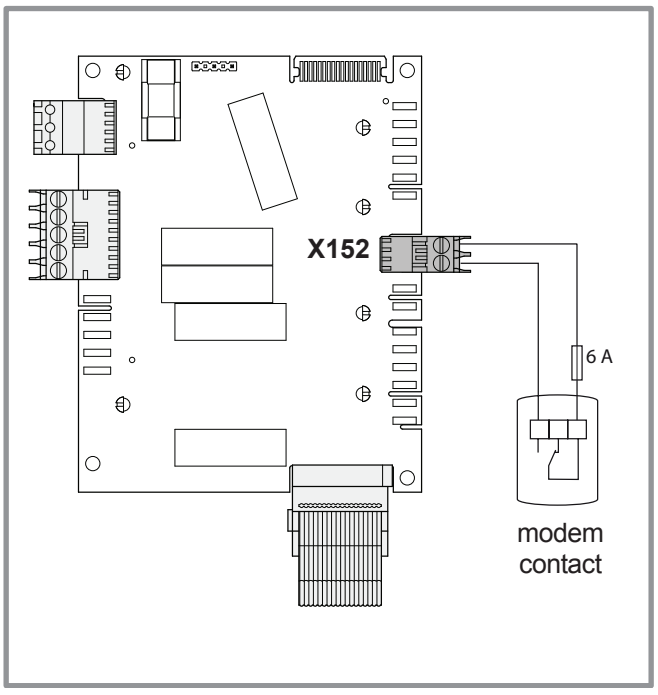


figure 7 - Telephone modem

2.4.3 Impact on the power management function

The modem input X152 and the input Ex1 (power management) enable Operating mode changeover * of the heating mode.

Using a telephone modem, may require modification of that (s) parameter (s) 900 (and / or 1200) according to the user's needs (eg. Setting "Protection mode"). In this case, power management will follow the instructions of the new setting (in the example "Protection mode").

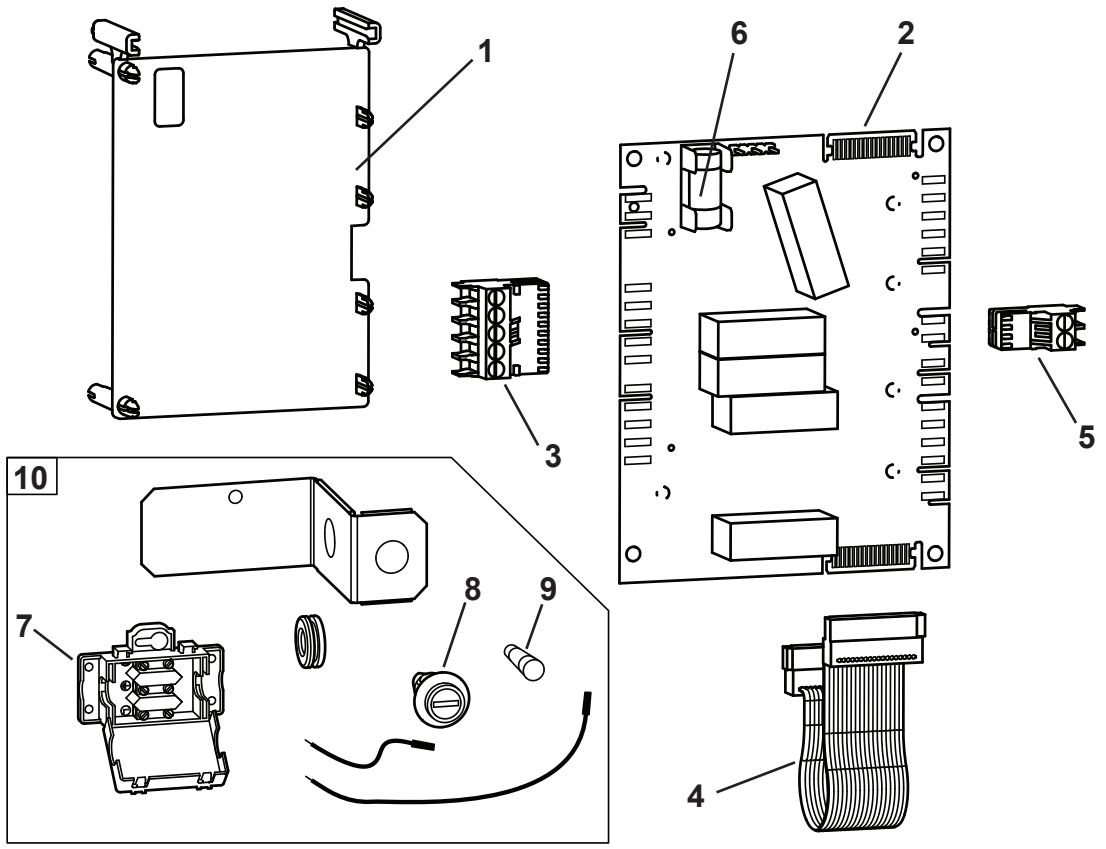
* parameters 900 (CC1) & 1200 (CC2) - default setting to "Reduced".

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.

N°	Code	Designation	Type	Qty
1	175062	Bracket		01
2	165341	Board AVS 55		01
3	110869	Connector	x 5	01
4	153018	Flat cable		01
5	110865	Connector	x 2	01
6	199910	Fuse	250v - 6.3A T	01
7	102153	Connection box		01
8	158831	Fuseholder		01
9	199923	Fuse	250v - 100 mA F	01
10	943127	Pilot-wire kit		01



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.

Subject to modifications without notice. Non contractual document.