Regulation

VM iSense Pro

C003690-C

Installation and Service Manual

remeha

Contents

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1   Introduction

1.1   Symbols used

In these instructions, various danger levels are employed to draw the user's attention to particular information. In so doing, we wish to safeguard the user's safety, obviate hazards and guarantee correct operation of the appliance.

> ⚠ **DANGER**
>
> Risk of a dangerous situation causing serious physical injury.

> ⚠ **WARNING**
>
> Risk of a dangerous situation causing slight physical injury.

> ⚠ **CAUTION**
>
> Risk of material damage.

i   Signals important information.

☞ Signals a referral to other instructions or other pages in the instructions.

1.2   Abbreviations

▸ **DHW**: Domestic hot water
▸ **3WV**: 3-way valve

1.3   General

1.3.1.   Manufacturer's liability

Our products are manufactured in compliance with the requirements of the various applicable European Directives. They are therefore delivered with (€ marking and all relevant documentation.

In the interest of customers, we are continuously endeavouring to make improvements in product quality. All the specifications stated in this document are therefore subject to change without notice.

Our liability as the manufacturer may not be invoked in the following cases:

▸ Failure to abide by the instructions on using the appliance.
▸ Faulty or insufficient maintenance of the appliance.
▸ Failure to abide by the instructions on installing the appliance.

1.3.2.   Installer's liability

The installer is responsible for the installation and inital start up of the appliance. The installer must respect the following instructions:

▸ Read and follow the instructions given in the manuals provided with the appliance.
▸ Carry out installation in compliance with the prevailing legislation and standards.
▸ Perform the initial start up and carry out any checks necessary.
▸ Explain the installation to the user.
▸ If a maintenance is necessary, warn the user of the obligation to check the appliance and maintain it in good working order.
▸ Give all the instruction manuals to the user.

1.4   Certifications

This product complies to the requirements to the european directives and following standards:

▸ 2006/95/EC Low Voltage Directive. Reference Standard: EN60.335.1.
▸ 2004/108/EC Electromagnetic Compatibility Directive. Generic standards: EN1000-6-3 , EN 61000-6-1.

2 Safety instructions and recommendations

2.1 Recommendations

> ⚠️ **WARNING**
>
> Only qualified professionals are authorised to work on the appliance and the installation.

The appliance should be on Summer or Antrifreeze mode rather than switched off to guarantee the following functions:

▸ Anti blocking of pumps.
▸ Frost protection.

3   Technical description

3.1   Operating modes

3.1.1.   Appliance set to VM/MR

▸ Primary circuit control.

▸ Circuits B, C, DHW and AUX available.

▸ Does not require an outside temperature sensor.

▸ 1 to 20VM iSense Pro modules + 1 to 10 generators equipped with a DIEMATIC / iSense Pro control panel.

▸ DHW priority is only activated on the secondary circuits connected to the same VM iSense Pro module

3.1.2.   Appliance set to 3WV+

Independent control system

▸ No primary circuit control.

▸ Circuits B, C, DHW and AUX available.

▸ Requires an outside temperature sensor.

VM iSense Pro module networked with one or more generators equipped with a DIEMATIC-m3 / iSense Pro control panel

▸ Primary circuit control.

▸ Circuits B, C, DHW and AUX available.

▸ Does not require an outside temperature sensor.

▸ 1 to 10VM iSense Pro modules configured as **3WV+** or generators equipped with a DIEMATIC control panel + 20VM iSense Pro modules configured as **VM/MR**.

▸ DHW priority is activated on all of the system's secondary circuits.
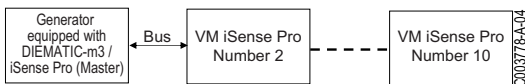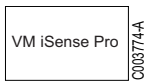
3.1.3.   Appliance set to OTH+3WV

Independent control system

▸ ON/OFF and temperature control of the boiler.

▸ Circuits B, C, DHW and AUX available.

▸ Requires an outside temperature sensor.
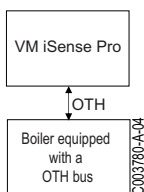
Cascade of boilers equipped with OTH bus
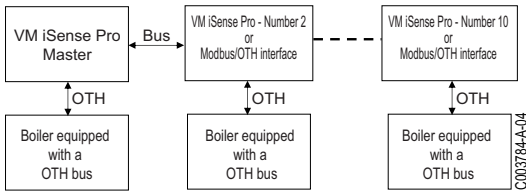
▸ ON/OFF and temperature control of the boiler.

▸ Circuits B, C, DHW and AUX available.

▸ Requires an outside temperature sensor.

▸ 1 to 10VM iSense Pro modules configured as **OTH+3WV** or generators equipped with a DIEMATIC-m3 / iSense Pro control panel or an OTH MODBUS interface + 20VM iSense Pro modules configured as **VM/MR**.

▸ DHW priority is activated on all of the system's secondary circuits.

3.1.4.   Appliance set to 0/1+V3V

Independent control system
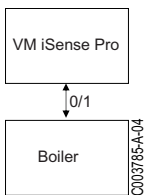
▸ Control of the boiler with an ON/OFF inlet.

▸ Circuits B, C and DHW available.

▸ **S.AUX** used for the ON/OFF command.

▸ The ⊘AUX outlet provides 230V.

▸ Requires an outside temperature sensor.

Slave control system in cascade
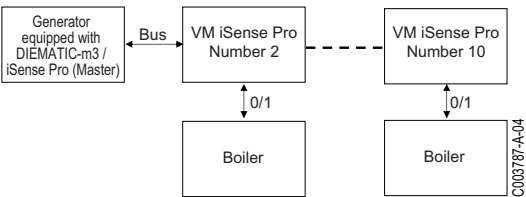
▸ Circuits B, C and DHW available.

▸ **S.AUX** used for the ON/OFF command.

▸ Does not require an outside temperature sensor.

▸ The VM iSense Pro module is always a slave in a cascade installation.

▸ DHW priority is activated on all of the system's secondary circuits.

3.2   Description of the keys
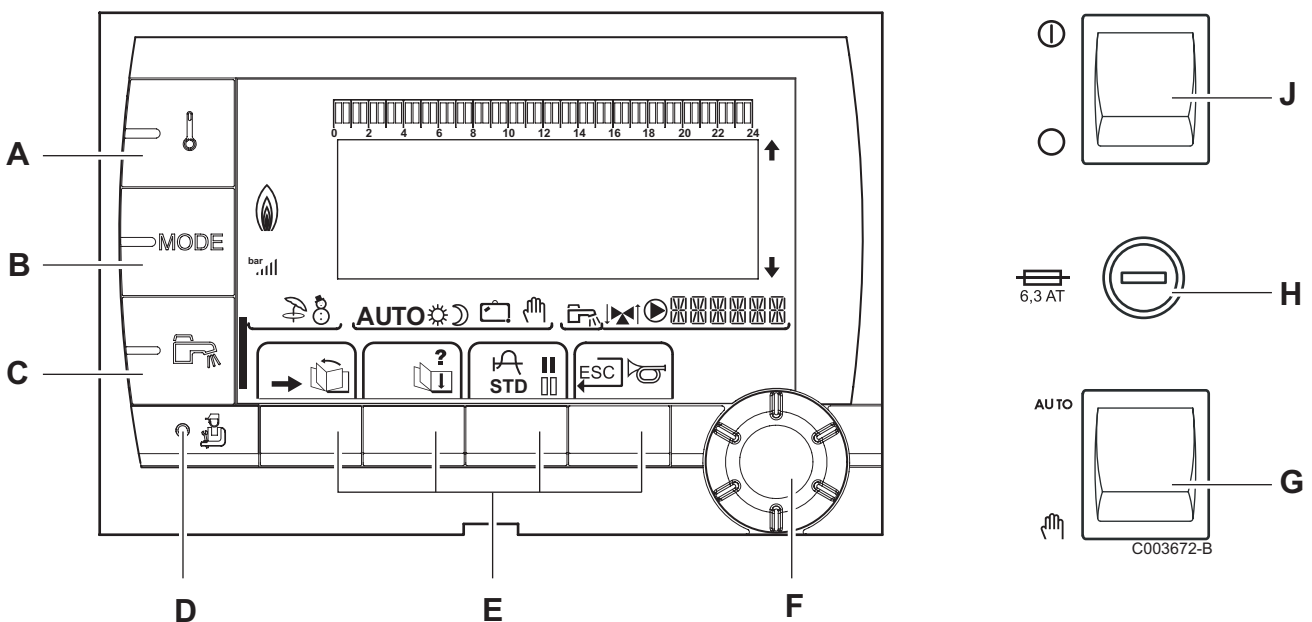
A	Temperature setting key (heating, DHW, swimming pool)
B	Operating mode selection key
C	DHW override key
D	Key to access the parameters reserved for the installer
E	Keys on which the function varies as and when selections are made
F	Rotary setting button:

- ▸ Turn the rotary button to scroll through the menus or modify a value
- ▸ Press the rotary button to access the menu selected or confirm a value modification

G	Button AUTO/MANU
H	Fuse
J	Button ON/OFF

3.3 Description of the display

3.3.1. Key functions
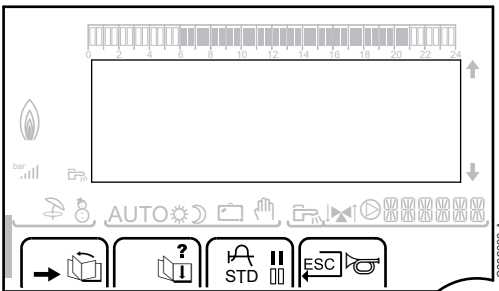
➜	Access to the various menus
🕮	Used to scroll through the menus
🕮	Used to scroll through the parameters
?	The symbol is displayed when help is available
⋔	Used to display the curve of the parameter selected
STD	Reset of the time programmes
‖	Selection of comfort mode or selection of the days to be programmed
⫴	Selection of reduced mode or deselection of the days to be programmed
⏎	Back to the previous level
ESC	Back to the previous level without saving the modifications made

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3.3.2.   Flame symbol
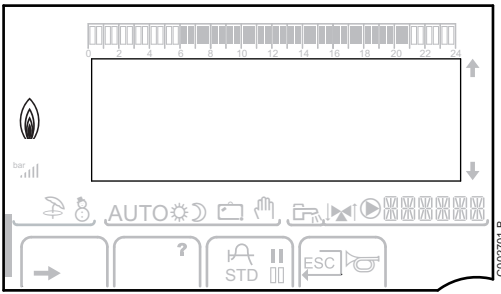
▸ The symbol is displayed: The burner is operating.

▸ The symbol is not displayed: The burner is off.

3.3.3.   Solar (If connected)
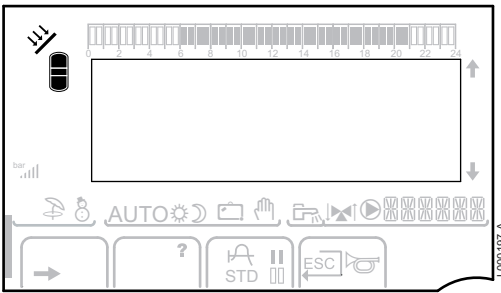
☼	The solar load pump is running
	The top part of the tank is reheated to the tank set point
	The entire tank is reheated to the tank set point
	The entire tank is reheated to the solar tank set point
	The tank is not loaded - Presence of the solar control system

3.3.4.   Operating modes
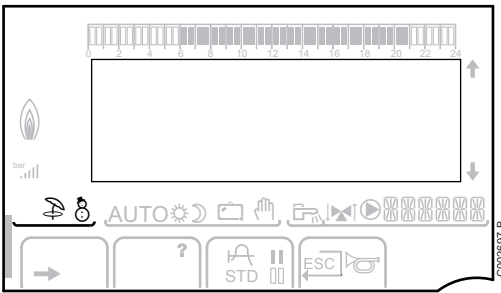
	Summer mode: The heating is off. Domestic hot water continues to be produced
	WINTER mode: Heating and domestic hot water working
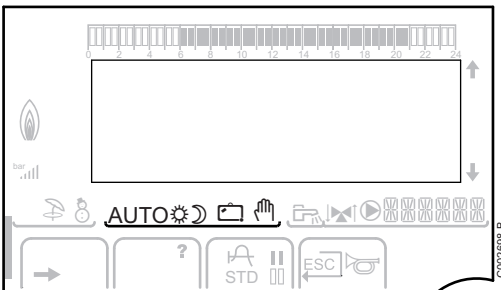
AUTO	Operation in automatic mode according to the timer programme
☼	Comfort mode: The symbol is displayed when a DAY override (comfort) is activated

  ▸ Flashing symbol: Temporary override

  ▸ Steady symbol: Permanent override

☾	Reduced mode: The symbol is displayed when a NIGHT override (reduced) is activated

  ▸ Flashing symbol: Temporary override

  ▸ Steady symbol: Permanent override

◻️   Holiday mode: The symbol is displayed when a HOLIDAY override (antifreeze) is activated

  ▸   Flashing symbol: Holiday mode programmed

  ▸   Steady symbol: Holiday mode active

✋   Manual mode

3.3.5.   Domestic Hot Water override
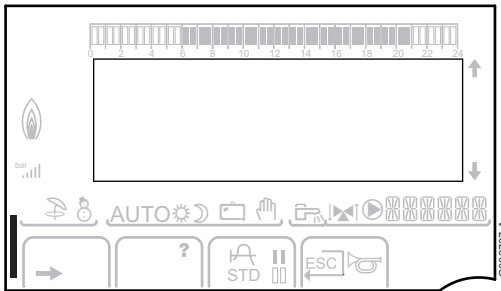
A bar is displayed when a DHW override is activated:

  ▸   Flashing bar: Temporary override

  ▸   Steady bar: Permanent override

3.3.6.   Other information
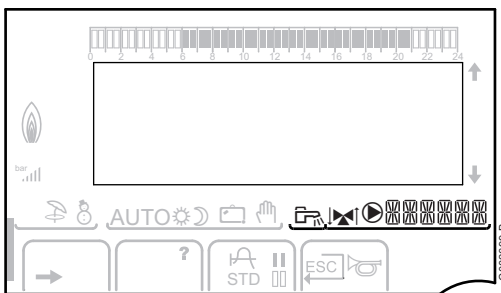
🚿   The symbol is displayed when domestic hot water production is running.

▶◀   Valve indicator: The symbol is displayed when a 3-way valve is connected.

  ▸   ▶◀ : 3-way valve opens

  ▸   ▶◀ : 3-way valve closes

⊙   The symbol is displayed when the pump is operating.

▨▨▨▨▨   Name of the circuit for which the parameters are displayed.

3.4   Technical specifications

  ▸ Electricity supply: 230 V - 50 Hz
  ▸ Output: 10 - 1450 W

4 Installation

4.1 Package list

The delivery includes:

▸ The VM iSense Pro module
▸ Quick installation guide
▸ USB key with the installation and service manual and the user guide

4.2 Mounting

The **VM iSense Pro** module can be affixed to the wall or in an electrical cabinet.

C003570-C

1. Drill 3 holes.
   (1) Drilling template
2. Affix the module.
3. Open the protective hood.
4. Secure the unit with the 3 screws.
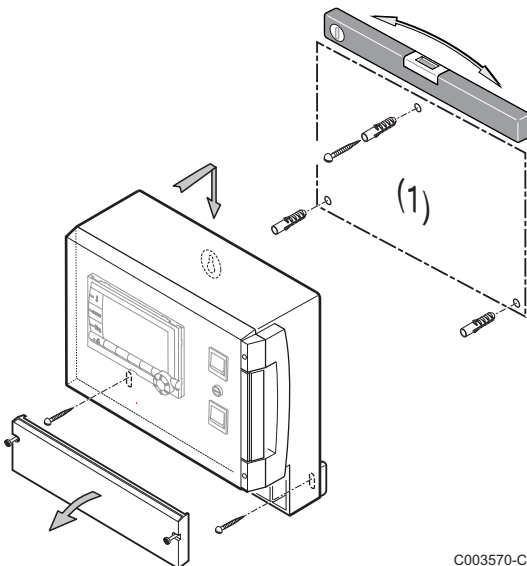
⚠ **CAUTION**

▸ Do not fit a power relay or a power circuit at a distance of less than 10 cm from the box.
▸ Failure to comply with these instructions could lead to interference and control unit malfunctioning or even damage to the electronic circuitry.

4.3   Electrical connections

4.3.1.   Recommendations

⚠️ **WARNING**

‣ Only qualified professionnals may carry out electrical connections, always with the power off.

‣ The appliance is fully pre-wired. Do not modify the connections inside the control panel.

‣ Earth the appliance before making any electrical connections.

Make the electrical connections of the appliance according to:

‣ The instructions of the prevailing standards.

‣ The instructions on the electrical diagrams provided with the boiler.

‣ The recommendations in the instructions.

⚠️ **CAUTION**

‣ Separate the sensor cables from the 230 V cables.

‣ Use 2 pipes or cable guides at least 10 cm apart.

‣ Keep to the polarity shown on the terminals: phase (L), neutral (N) and earth ⏚.

⚠️ **CAUTION**

Failure to comply with these instructions could lead to interference and control unit malfunctioning or even damage to the electronic circuitry.

4.3.2.   Access to the connection terminal
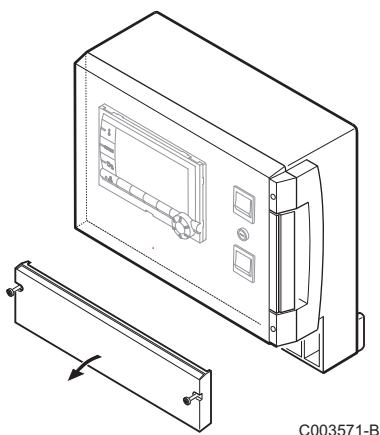
1. Unscrew the 2 screws.
2. Open the protective hood.

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4.3.3. Description of the connection terminal block

C003730-A
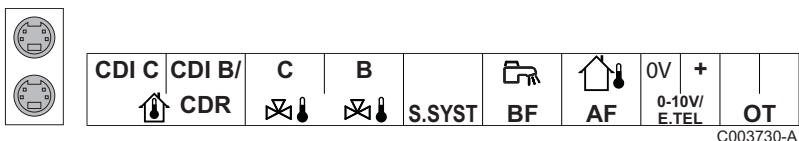
(bus icon)	Connecting the BUS cascade BUS cable - Package AD124 / AD134 / DB119	S.SYST	System sensor - Package AD250
CDI C	Remote control (Circuit C) - Package AD258	BF	DHW sensor - Package AD212
CDI B / CDR	Remote control (Circuit B) - Package AD258 Radio remote control - Circuit B/C - Package AD256	AF	Outside sensor - Package FM46 Outside radio-controlled temperature sensor - Package AD251
C	Outlet sensor circuit C - Package AD199	0-10 V / E.TEL	Inlet 0-10 Volts voice remote monitoring module - Package AD152
B	Outlet sensor circuit B - Package AD199	OT	OpenTherm

C003567-C
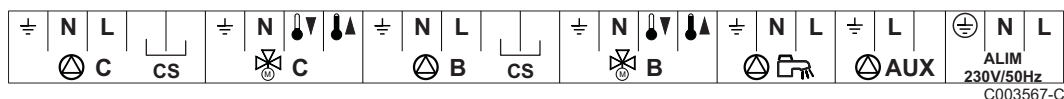
C	Heating pump circuit C	B	3 way valve circuit B
CS	Safety contact - Factory fitted bridge[1]	(pump icon)	D.H.W. load pump
C	3 way valve circuit C	AUX	Auxiliary pump
B	Heating pump circuit B	ALIM 230 V/50Hz	Electricity supply
CS	Safety contact - Factory fitted bridge[1]		
(1) If using underfloor heating, remove the bridge CS and connect a safety thermostat.			

4.4   Installation and connection examples - Appliance set to VM/MR

4.4.1.   VM iSense Pro module networked with one or more generators equipped with a DIEMATIC / iSense Pro control panel

■ **Connecting 2 x 2 valve circuits and a DHW tank**
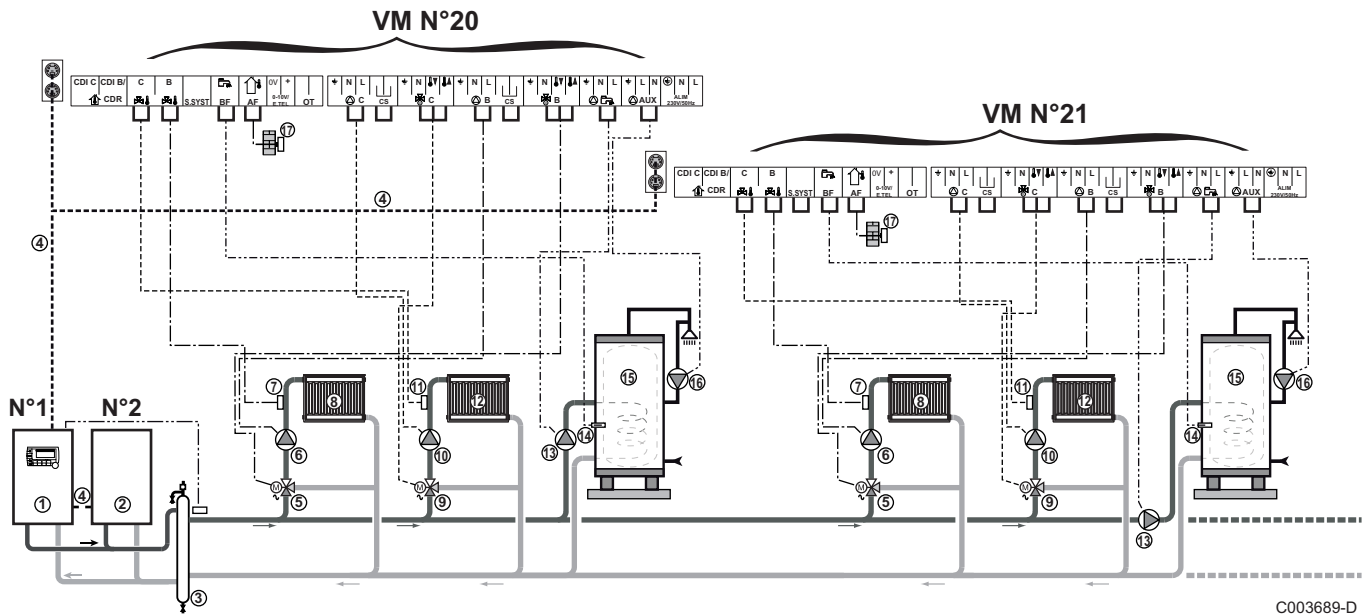
C003689-D

ℹ️ DHW priority is only activated on the secondary circuits connected to the same VM iSense Pro module.

① Master boiler equipped with a Diematic 3 / Diematic m3 / Diematic m-Delta / iSense Pro control panel

② Secondary boiler

③ Low loss header

④ BUS cable

⑤ 3 way valve circuit B

⑥ Heating pump circuit B

⑦ Outlet sensor circuit B

⑧ Heating circuit B

⑨ 3 way valve circuit C

⑩ Heating pump circuit C

⑪ Outlet sensor circuit C

⑫ Heating circuit C

⑬ D.H.W. load pump

⑭ DHW sensor

⑮ DHW storage tank

⑯   Domestic circulation loop pump (Optional)

⑰   Outside temperature sensor (optional) for control per
          zone. Otherwise, the outside temperature of the boiler
          taken into account.

ℹ   ▸ It is possible to connect up to 20 appliances
            configured as **VM/MR** (address of 20 to 39).

          ▸ Connect a safety thermostat if the heating circuit is for
            underfloor heating.

Settings to be made for this type of installation: Appliance set to VM/MR			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
VM NUMBER	Installer level Menu **#NETWORK**	20, 21, 22, ...	☞ "Configuring the network", page 63

☞ For setting master and slave boilers, refer to the boiler's
installation and service manual.

■ **Connecting the options**

For example: TELCOM remote vocal monitoring module, remote
controls for circuits **B** and **C**, second DHW tank

①   Connect the remote control (Package AD258/FM52).

②   Connect the TELCOM remote vocal monitoring module.
          The remote monitoring module can also be connected to
          the **S.SYST** inlet (if available).

③   Connect the DHW sensor of the second tank.

④   Second domestic hot water tank.

⑤   Connect the load pump of the second tank.

Settings to be made for this type of installation			
Parameters	Access	Settings to be made	See chapter
INSTALLATION	Installer level Menu #SYSTEM	EXTENDED	☞ "Displaying the parameters in extended mode", page 48
If second tank connected: S.AUX:[1]	Installer level Menu #SYSTEM	DHW	☞ "Setting the parameters specific to the installation", page 48
If a remote monitoring module is connected to the 0-10V inlet on the terminal block: IN 0-10V	Installer level Menu #SYSTEM	NO	☞ "Setting the parameters specific to the installation", page 48
If a remote monitoring module is connected to the 0-10V inlet on the terminal block: I.TEL:[2]	Installer level Menu #SYSTEM	ANTIFR	☞ "Setting the parameters specific to the installation", page 48
I.SYST	Installer level Menu #SYSTEM	To be customised	☞ "Setting the parameters specific to the installation", page 48
CTC.I.SYST	Installer level Menu #SYSTEM	To be customised	☞ "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if INSTALLATION parameter is set to EXTENDED.			
(2) The parameter is only displayed if the parameter IN 0-10V is set to OFF.			

4.5   Installation and connection examples - Appliance set to 3WV+

4.5.1.   Independent control system
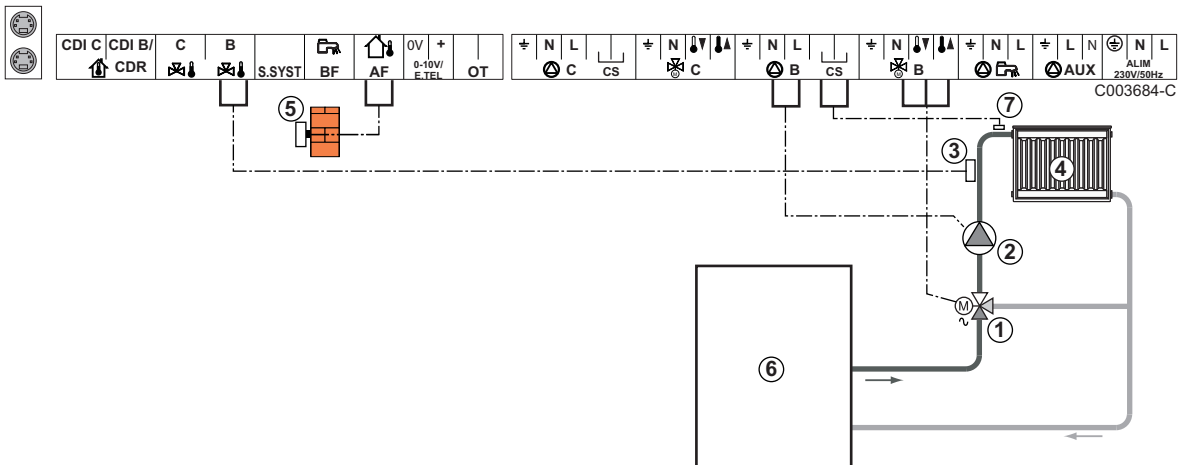
■ 1 mixed heating circuit

C003684-C

① 3 way valve circuit B

② Heating pump circuit B

③ Outlet sensor circuit B

④ Heating circuit B

⑤ Outside sensor

⑥   Primary

⑦   Connect a safety thermostat if the heating circuit is for underfloor heating

i   Earth the various pumps and 3-way valves.

Settings to be made for this type of installation			
Parameters	Access	Settings to be made	See chapter
CIRC.CURVE B	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	☞ "Setting the heating curve", page 52
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	To be customised	☞ "Professional settings", page 56

■ **2 mixed heating circuits and 1 DHW circuit**

①   3 way valve circuit B

②   Heating pump circuit B

③   Outlet sensor circuit B

④   Heating circuit B

⑤   Outside sensor

⑥   Primary

⑦   DHW storage tank

⑧   DHW sensor

⑨   Domestic circulation loop pump (Optional)

⑩   D.H.W. load pump

⑪   3 way valve circuit C

⑫   Heating pump circuit C

⑬   Outlet sensor circuit C

⑭   Heating circuit C

> **i** If using underfloor heating, remove the bridge **CS** and connect a safety thermostat.

Settings to be made for this type of installation			
Parameters	Access	Settings to be made	See chapter
CIRC.CURVE B	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	☞ "Setting the heating curve", page 52
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	To be customised	☞ "Professional settings", page 56
CIRC.CURVE C	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	☞ "Setting the heating curve", page 52
MAX. CIRC. C	Installer level Menu **#SECONDARY LIMITS**	To be customised	☞ "Professional settings", page 56
S.AUX	Installer level Menu **SYSTEM**	**DHW LOOP**	☞ "Setting the parameters specific to the installation", page 48

■ **1 direct heating circuit + 1 mixed heating circuit + 1 DHW circuit**

①	3 way valve circuit B
②	Heating pump circuit B
③	Outlet sensor circuit B
④	Heating circuit B
⑤	Outside sensor
⑥	Primary
⑦	DHW storage tank
⑧	DHW sensor
⑨	Domestic circulation loop pump (Optional)
⑩	D.H.W. load pump
⑫	Heating pump circuit C

⑭   Heating circuit C

i   If using underfloor heating, remove the bridge **CS** and connect a safety thermostat.

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
CIRC.CURVE B	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	☞ "Setting the heating curve", page 52
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	To be customised	☞ "Professional settings", page 56
If circuit C is a direct circuit without a flow sensor: **CIRC. C:**[(1)]	Installer level Menu **#SYSTEM**	**DIRECT**	☞ "Setting the parameters specific to the installation", page 48
CIRC.CURVE C	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	☞ "Setting the heating curve", page 52
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**.			

■ Pool connection

C003686-B

①   Connect the secondary swimming pool pump.

②   Connect the swimming pool sensor.

③   Plate heat exchanger.

④   Pool heating cut-off control

i   When the parameter **I.TEL:** or **S.SYST** is set to **0/1 B**, the swimming pool is no longer heated when the contact is open (factory setting); only the antifreeze function continues to run.
The contact direction can still be adjusted with parameter **CT.TEL** or **CT.SYST**.

⑤   Connect the primary swimming pool pump.

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	Set the value of **MAX. CIRC. B** to the temperature corresponding to the needs of the exchanger	☞ "Professional settings", page 56
CIRC. B:[1]	Installer level Menu **#SYSTEM**	**SWIM.P.**	☞ "Setting the parameters specific to the installation", page 48
If a heating shutdown command is connected to the 0-10V inlet on the terminal block: **IN 0-10V**	Installer level Menu **#SYSTEM**	**NO**	☞ "Setting the parameters specific to the installation", page 48
If a heating shutdown command is connected to the 0-10V inlet on the terminal block: **I.TEL:**[2]	Installer level Menu **#SYSTEM**	**0/1 B**	☞ "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**. (2) The parameter is only displayed if the parameter **IN 0-10V** is set to **OFF**.			

Controlling the pool circuit

The control system can be used to manage a swimming pool circuit in both cases:

Case 1: The control system regulates the primary circuit (boiler/exchanger) and the secondary circuit (exchanger/pool).

▸ Connect the primary circuit pump (boiler/exchanger) to the pump **B** outlet. The temperature **MAX. CIRC. B** is then guaranteed during comfort periods on programme **B** in summer and winter alike.

▸ Connect the pool sensor (package AD212) to the **S OUTL B** input.

▸ Set the set point of the pool sensor using key 🌡 in the range 5 - 39°C.

Case 2: The pool has already a regulation system that is to be kept. The control system only regulates the primary circuit (boiler/exchanger).

▸ Connect the primary circuit pump (boiler/exchanger) to the pump **B** outlet.
The temperature **MAX. CIRC. B** is then guaranteed during comfort periods on programme **B** in summer and winter alike.

ℹ The swimming pool can also be connected to circuit **C**:

▸ Make the connection to the terminal blocks marked **C**.

▸ Set the parameters for circuit **C**.

Hourly programming of the secondary circuit pump

The secondary pump operates during programme **B** comfort periods in summer and winter alike.

Stopping

To prepare your pool for winter, consult your pool specialist.

■ Connecting a mixed tank

①   Connect the electric tank

②   Power control relay to the electrical resistor

③   DHW sensor

④   Connect the outside temperature sensor

⑤   D.H.W. load pump

⑥   Primary

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
S.AUX:[1]	Installer level Menu **#SYSTEM**	**DHW ELEC**	☞ "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**.			

■ Connecting the options

For example: TELCOM remote vocal monitoring module, remote controls for circuits **B** and **C**, second DHW tank

① Connect the remote control (Package AD258/FM52).

② Connect the TELCOM remote vocal monitoring module. The remote monitoring module can also be connected to the **S.SYST** inlet (if available).

③ Connect the DHW sensor of the second tank.

④ Second domestic hot water tank.

⑤ Connect the load pump of the second tank.

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
If second tank connected: **S.AUX:**[(1)]	Installer level Menu **#SYSTEM**	**DHW**	☞ "Setting the parameters specific to the installation", page 48
If a remote monitoring module is connected to the 0-10V inlet on the terminal block: **IN 0-10V**	Installer level Menu **#SYSTEM**	**NO**	☞ "Setting the parameters specific to the installation", page 48
If a remote monitoring module is connected to the 0-10V inlet on the terminal block: **I.TEL:**[(2)]	Installer level Menu **#SYSTEM**	**ANTIFR**	☞ "Setting the parameters specific to the installation", page 48
I.SYST	Installer level Menu **#SYSTEM**	To be customised	☞ "Setting the parameters specific to the installation", page 48
CTC.I.SYST	Installer level Menu **#SYSTEM**	To be customised	☞ "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**.			
(2) The parameter is only displayed if the parameter **IN 0-10V** is set to **OFF**.			

4.5.2. VM iSense Pro module networked with one or more generators equipped with a DIEMATIC-m3 / iSense Pro control panel

■ **Connecting 2 x 2 valve circuits and a DHW tank**

C003734-D

> **ⓘ** DHW priority is activated on all of the system's secondary circuits.

①	Master boiler equipped with a Diematic m3 / iSense Pro control panel
②	Secondary boiler
③	Low loss header
④	BUS cable
⑤	3 way valve circuit B
⑥	Heating pump circuit B
⑦	Outlet sensor circuit B
⑧	Heating circuit B
⑨	3 way valve circuit C
⑩	Heating pump circuit C
⑪	Outlet sensor circuit C
⑫	Heating circuit C
⑬	D.H.W. load pump
⑭	DHW sensor
⑮	DHW storage tank
⑯	Domestic circulation loop pump (Optional)
⑰	Outside temperature sensor (optional) for control per zone. Otherwise, the outside temperature of the boiler taken into account.

ℹ Connect a safety thermostat if the heating circuit is for underfloor heating.

Settings to be made for this type of installation: VM iSense Pro slave module			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	👉 "Displaying the parameters in extended mode", page 48
CASCADE:[1]	Installer level Menu **#NETWORK**	**ON**	👉 "Configuring the network", page 63
MASTER CONTROLLER[1]	Installer level Menu **#SYSTEM**	**OFF**	
SLAVE NUMBER[1]	Installer level Menu **#SYSTEM**	2, 3, ...	
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**			

4.6 Installation and connection examples - Appliance set to OTH+3WV

4.6.1. Independent control system

■ **1 mixed heating circuit**

① 3 way valve circuit B
② Heating pump circuit B
③ Outlet sensor circuit B
④ Heating circuit B
⑤ Outside sensor (optional)
⑥ Boiler with OpenTherm inlet

i

‣ Earth the various pumps and 3-way valves.

‣ Connect a safety thermostat if the heating circuit is for underfloor heating.

Settings to be made for this type of installation			
Parameters	Access	Settings to be made	See chapter
CIRC.CURVE B	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	☞ "Setting the heating curve", page 52
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	To be customised	☞ "Professional settings", page 56

■ **2 mixed heating circuits and 1 DHW circuit**

C003737-B

① 3 way valve circuit B

② Heating pump circuit B

③ Outlet sensor circuit B

④ Heating circuit B

⑤ Outside sensor

⑥ Primary

⑦ DHW storage tank

⑧ DHW sensor

⑨ Domestic circulation loop pump (Optional)

⑩ D.H.W. load pump

⑪ 3 way valve circuit C

⑫ Heating pump circuit C

⑬ Outlet sensor circuit C

⑭ Heating circuit C

⑮ Boiler's OT terminal block

ℹ   Connect a safety thermostat if the heating circuit is for underfloor heating.

Settings to be made for this type of installation			
Parameters	Access	Settings to be made	See chapter
CIRC.CURVE B	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	👉 "Setting the heating curve", page 52
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	To be customised	👉 "Professional settings", page 56

■ **1 direct heating circuit + 1 mixed heating circuit + 1 DHW circuit**

①   3 way valve circuit B

②   Heating pump circuit B

③   Outlet sensor circuit B

④   Heating circuit B

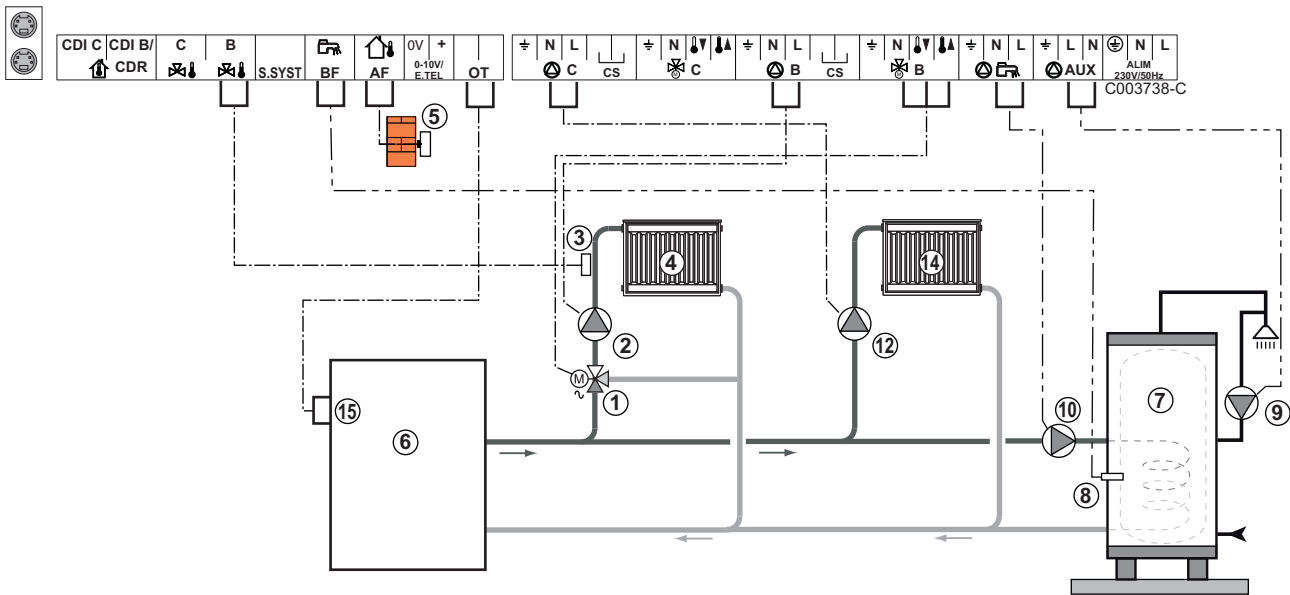⑤   Outside sensor

⑥   Primary

⑦   DHW storage tank

⑧   DHW sensor

⑨   Domestic circulation loop pump (Optional)

⑩   D.H.W. load pump

⑫   Heating pump circuit C

⑭   Heating circuit C

⑮   Boiler's OT terminal block

> ⓘ
> ‣ Earth the various pumps and 3-way valves.
> ‣ Connect a safety thermostat if the heating circuit is for underfloor heating.

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
CIRC.CURVE B	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	☞ "Setting the heating curve", page 52
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	To be customised	☞ "Professional settings", page 56
If circuit C is a direct circuit without a flow sensor: **CIRC. C:**[1]	Installer level Menu **#SYSTEM**	**DIRECT**	☞ "Setting the parameters specific to the installation", page 48
CIRC.CURVE C	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	☞ "Setting the heating curve", page 52
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**.			

■ **Hot water storage tank connection**

QUADRO DU storage tank

In this installation example, the storage tank (type QUADRO DU) incorporates a domestic hot water zone. The boiler starts up systematically to maintain the domestic hot water zone in the storage tank or to maintain the independent tank at temperature.
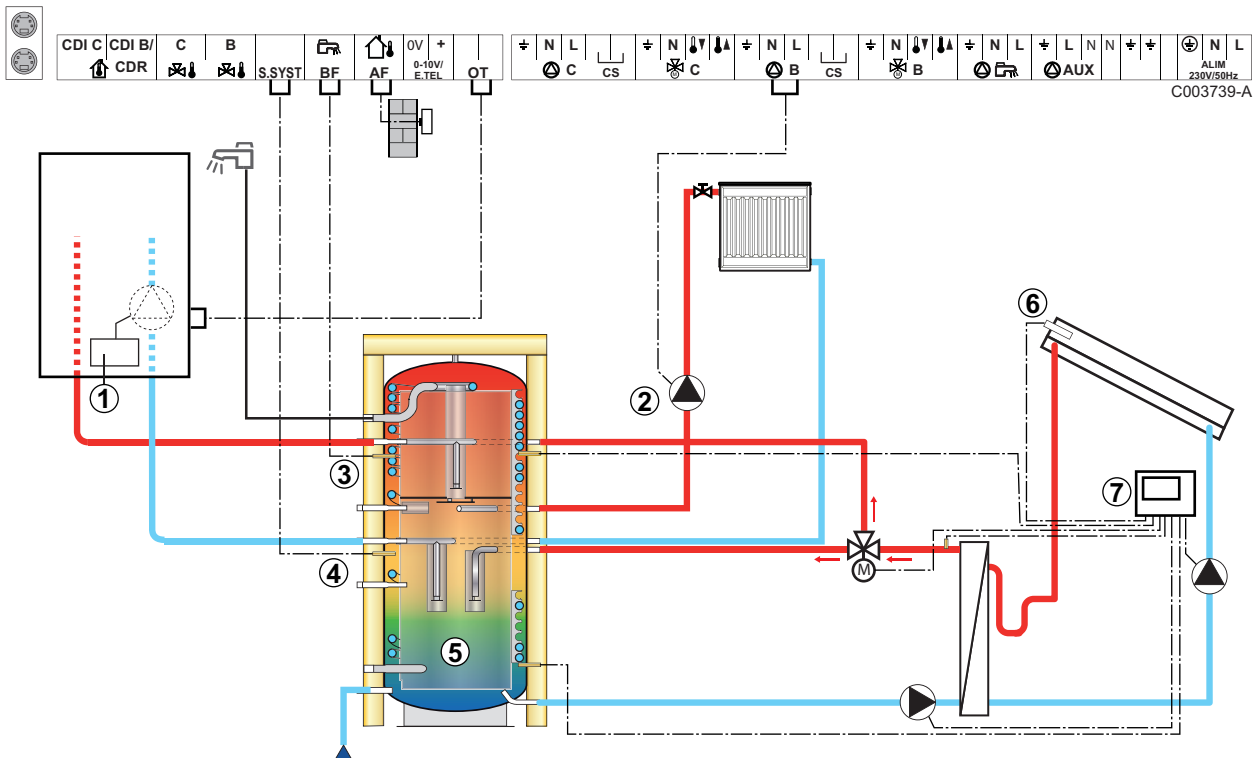
> **i** This type of installation only works if the boiler incorporates a boiler pump managed by the boiler regulator.

① Boiler regulator

② Connect the heating pump (Circuit B).

③ DHW sensor

④ Connect the sensor from the storage tank (Package AD250).

⑤ Buffer tank.

⑥ Solar sensor probe.

⑦ Connect the solar station to the solar collectors.

Settings to be made for this type of installation			
Parameters	Access	Settings to be made	See chapter
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
I.SYST	Installer level Menu **#SYSTEM**	**STORAGE TANK**	☞ "Setting the parameters specific to the installation", page 48
If circuit B is a direct circuit without a flow sensor: **CIRC. B:**[1]	Installer level Menu **#SYSTEM**	**DIRECT**	☞ "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**.			

> **i** The DHW part is maintained at the DHW set point by the boiler.
> The heating zone is maintained at the set temperature calculated according to the outside temperature. The zone is reheated when the heating buffer temperature sensor ⑤ falls -6°C below the calculated set temperature. Reheating in the heating zone stops when the heating buffer temperature rises above the calculated set temperature.

■ **Pool connection**

C003686-B

① Connect the secondary swimming pool pump.

② Connect the swimming pool sensor.

③   Plate heat exchanger.

④   Pool heating cut-off control

> **ℹ** When the parameter **I.TEL:** or **S.SYST** is set to
> **0/1 B**, the swimming pool is no longer heated
> when the contact is open (factory setting); only
> the antifreeze function continues to run.
> The contact direction can still be adjusted with
> parameter **CT.TEL** or **CT.SYST**.

⑤   Connect the primary swimming pool pump.

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	Set the value of **MAX. CIRC. B** to the temperature corresponding to the needs of the exchanger	☞ "Professional settings", page 56
CIRC. B:[1]	Installer level Menu **#SYSTEM**	**SWIM.P.**	☞ "Setting the parameters specific to the installation", page 48
If a heating shutdown command is connected to the 0-10V inlet on the terminal block: **IN 0-10V**	Installer level Menu **#SYSTEM**	**NO**	☞ "Setting the parameters specific to the installation", page 48
If a heating shutdown command is connected to the 0-10V inlet on the terminal block: **I.TEL:**[2]	Installer level Menu **#SYSTEM**	**0/1 B**	☞ "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**.			
(2) The parameter is only displayed if the parameter **IN 0-10V** is set to **OFF**.			

Controlling the pool circuit

The control system can be used to manage a swimming pool circuit in both cases:

Case 1: The control system regulates the primary circuit (boiler/exchanger) and the secondary circuit (exchanger/pool).

▸ Connect the primary circuit pump (boiler/exchanger) to the pump **B** outlet. The temperature **MAX. CIRC. B** is then guaranteed during comfort periods on programme **B** in summer and winter alike.

▸ Connect the pool sensor (package AD212) to the **S OUTL B** input.

▸ Set the set point of the pool sensor using key 🌡 in the range 5 - 39°C.

Case 2: The pool has already a regulation system that is to be kept. The control system only regulates the primary circuit (boiler/exchanger).

▸ Connect the primary circuit pump (boiler/exchanger) to the pump **B** outlet.
The temperature **MAX. CIRC. B** is then guaranteed during comfort periods on programme **B** in summer and winter alike.

The swimming pool can also be connected to circuit **C**:

▸ Make the connection to the terminal blocks marked **C**.

▸ Set the parameters for circuit **C**.

Hourly programming of the secondary circuit pump

The secondary pump operates during programme **B** comfort periods in summer and winter alike.

Stopping

To prepare your pool for winter, consult your pool specialist.

■ Connecting a mixed tank
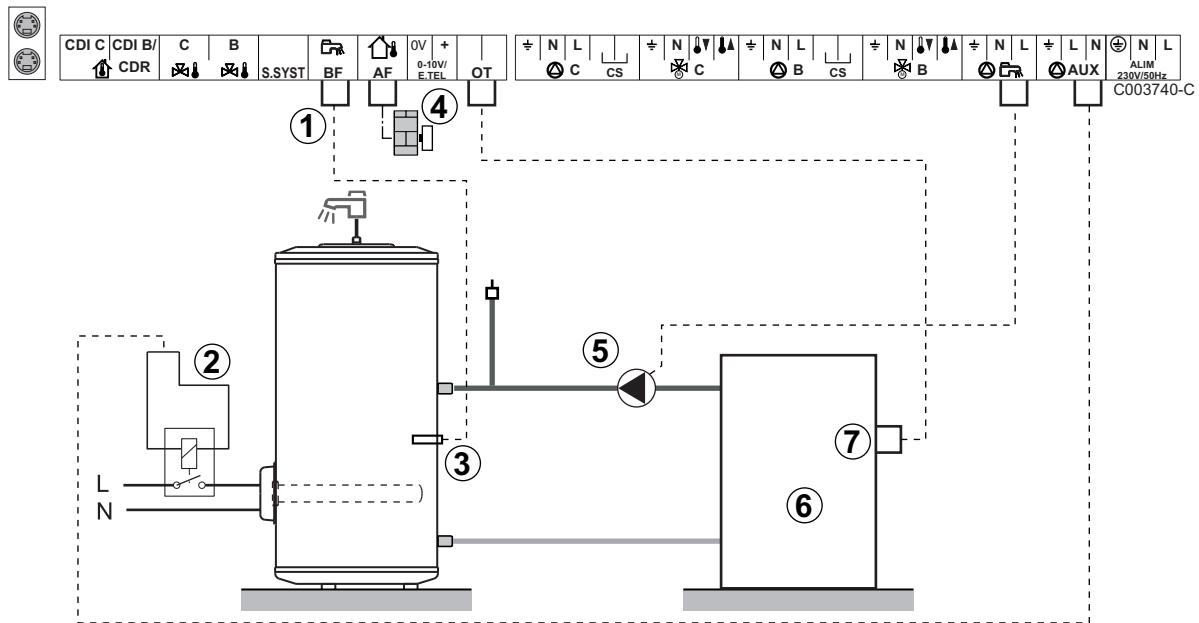
①	Connect the electric tank
②	Power control relay to the electrical resistor
③	DHW sensor
④	Connect the outside temperature sensor
⑤	D.H.W. load pump
⑥	Primary
⑦	Boiler's OT terminal block

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
S.AUX:[(1)]	Installer level Menu **#SYSTEM**	**DHW ELEC**	☞ "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**.			

■ **Connecting the options**

For example: TELCOM remote vocal monitoring module, remote controls for circuits **B** and **C**, second DHW tank

①   Connect the remote control (Package AD258/FM52).

②   Connect the TELCOM remote vocal monitoring module. The remote monitoring module can also be connected to the **S.SYST** inlet (if available).

③   Connect the DHW sensor of the second tank.

④   Second domestic hot water tank.

⑤   Connect the load pump of the second tank.

| Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
If second tank connected: **S.AUX:**[(1)]	Installer level Menu **#SYSTEM**	**DHW**	☞ "Setting the parameters specific to the installation", page 48
If a remote monitoring module is connected to the 0-10V inlet on the terminal block: **IN 0-10V**	Installer level Menu **#SYSTEM**	**NO**	☞ "Setting the parameters specific to the installation", page 48
If a remote monitoring module is connected to the 0-10V inlet on the terminal block: **I.TEL:**[(2)]	Installer level Menu **#SYSTEM**	**ANTIFR**	☞ "Setting the parameters specific to the installation", page 48
I.SYST	Installer level Menu **#SYSTEM**	To be customised	☞ "Setting the parameters specific to the installation", page 48
CTC.I.SYST	Installer level Menu **#SYSTEM**	To be customised	☞ "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**. (2) The parameter is only displayed if the parameter **IN 0-10V** is set to **OFF**.			

4.6.2.   Cascade of boilers equipped with OTH bus
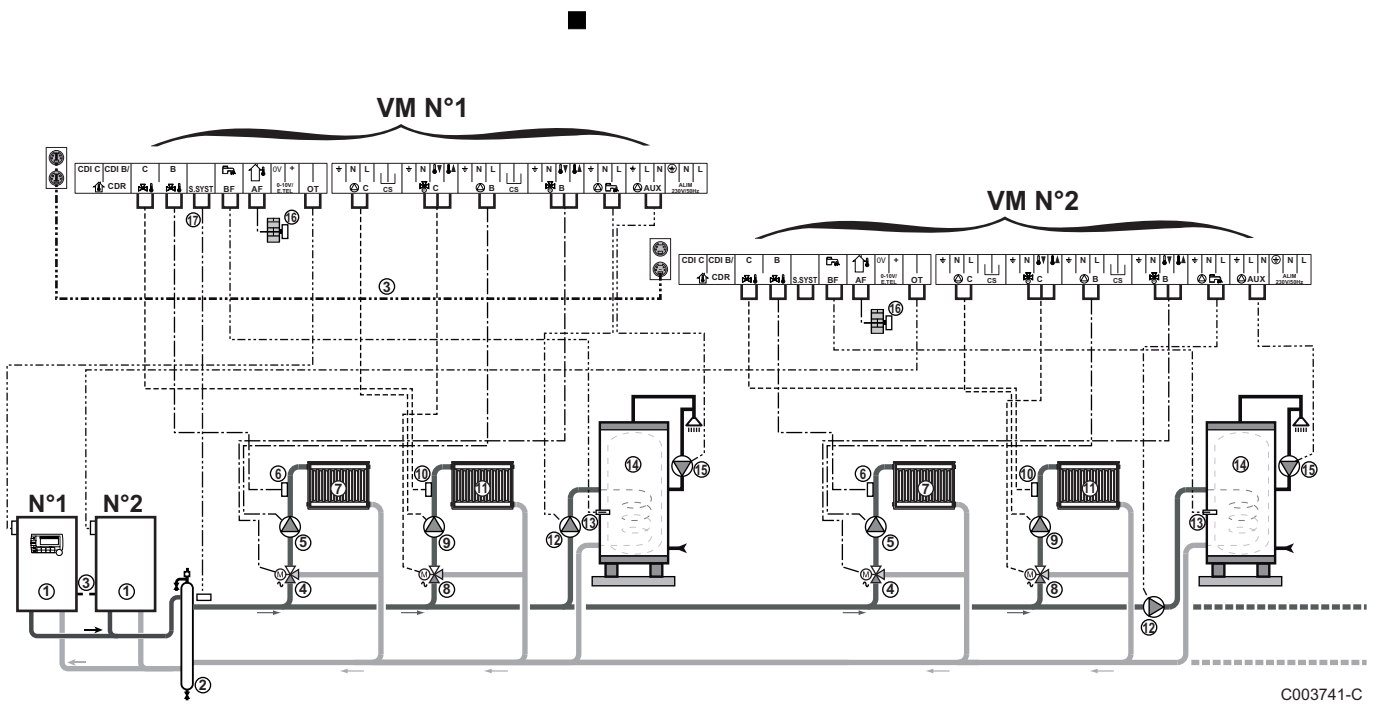
C003741-C

ℹ️ DHW priority is activated on all of the system's secondary circuits.

① Master boiler equipped with a OpenTherm control panel

Secondary boiler

② Low loss header

③ BUS cable to make the link between boilers

④ 3 way valve circuit B

⑤ Heating pump circuit B

⑥ Outlet sensor circuit B

⑦ Heating circuit B

⑧ 3 way valve circuit C

⑨ Heating pump circuit C

⑩ Outlet sensor circuit C

⑪ Heating circuit C

⑫ D.H.W. load pump

⑬ DHW sensor

⑭ DHW storage tank

⑮ Domestic circulation loop pump (Optional)

⑯ Outside sensor (Optional)

⑰ System sensor

> **i** Connect a safety thermostat if the heating circuit is for underfloor heating.

Settings to be made for this type of installation: VM iSense Pro slave module			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
CASCADE:[(1)]	Installer level Menu **#NETWORK**	**ON**	☞ "Configuring the network", page 63
MASTER CONTROLLER[(1)]	Installer level Menu **#SYSTEM**	**OFF**	
SLAVE NUMBER[(1)]	Installer level Menu **#SYSTEM**	2, 3, ...	
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**			

Settings to be made for this type of installation: VM iSense Pro master module			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
CASCADE:[(1)]	Installer level Menu **#NETWORK**	**ON**	☞ "Configuring the network", page 63
MASTER CONTROLLER[(1)]	Installer level Menu **#SYSTEM**	**ON**	
SYSTEM NETWORK[(1)]	Installer level Menu **#SYSTEM**	**ADD GENE MANU**	
PERMUT			
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**			

■ **Cascade of one boiler equipped with VM iSense Pro and one boiler equipped with an OTH Modbus interface board**
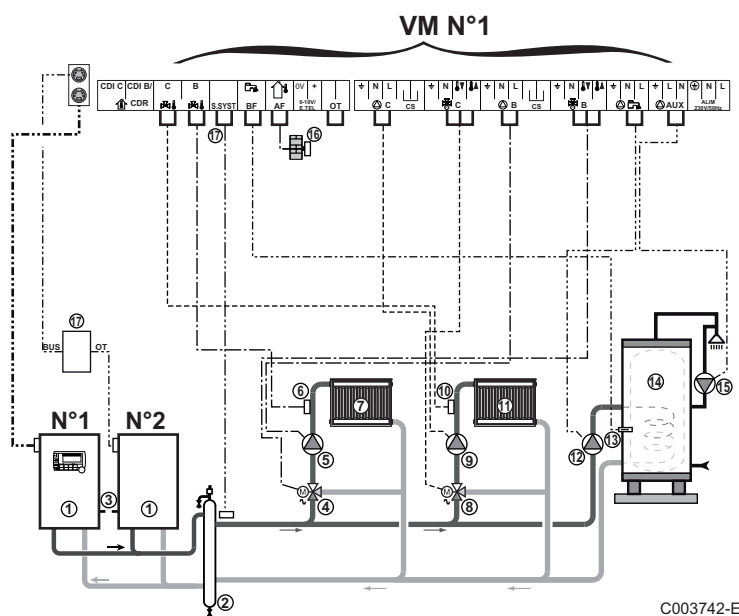
C003742-E

ℹ DHW priority is activated on all of the system's secondary circuits.

①	Master boiler equipped with a OpenTherm control panel
	Secondary boiler
②	Low loss header
③	BUS cable to make the link between boilers
④	3 way valve circuit B
⑤	Heating pump circuit B
⑥	Outlet sensor circuit B
⑦	Heating circuit B
⑧	3 way valve circuit C
⑨	Heating pump circuit C
⑩	Outlet sensor circuit C
⑪	Heating circuit C
⑫	D.H.W. load pump
⑬	DHW sensor
⑭	DHW storage tank
⑮	Domestic circulation loop pump (Optional)
⑯	Outside sensor (Optional)
⑰	OTH Modbus interface board (Package AD286 / AD287)
⑰	System sensor

ℹ Connect a safety thermostat if the heating circuit is for underfloor heating.

| Settings to be made for this type of installation: VM iSense Pro slave module			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
CASCADE:[1]	Installer level Menu **#NETWORK**	**ON**	☞ "Configuring the network", page 63
MASTER CONTROLLER[1]	Installer level Menu **#SYSTEM**	**OFF**	
SLAVE NUMBER[1]	Installer level Menu **#SYSTEM**	2, 3, ...	
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**			

Settings to be made for this type of installation: VM iSense Pro master module			
Parameters	Access	Settings to be made	See chapter
INSTALLATION	Installer level Menu #SYSTEM	EXTENDED	☞ "Displaying the parameters in extended mode", page 48
CASCADE:[1]	Installer level Menu #NETWORK	ON	☞ "Configuring the network", page 63
MASTER CONTROLLER[1]	Installer level Menu #SYSTEM	ON	
SYSTEM NETWORK[1]	Installer level Menu #SYSTEM	ADD SLAVE	
PERMUT			
(1) The parameter is only displayed if INSTALLATION parameter is set to EXTENDED			

4.7   Installation and connection examples - Appliance set to 0/1+V3V

4.7.1.   Independent control system
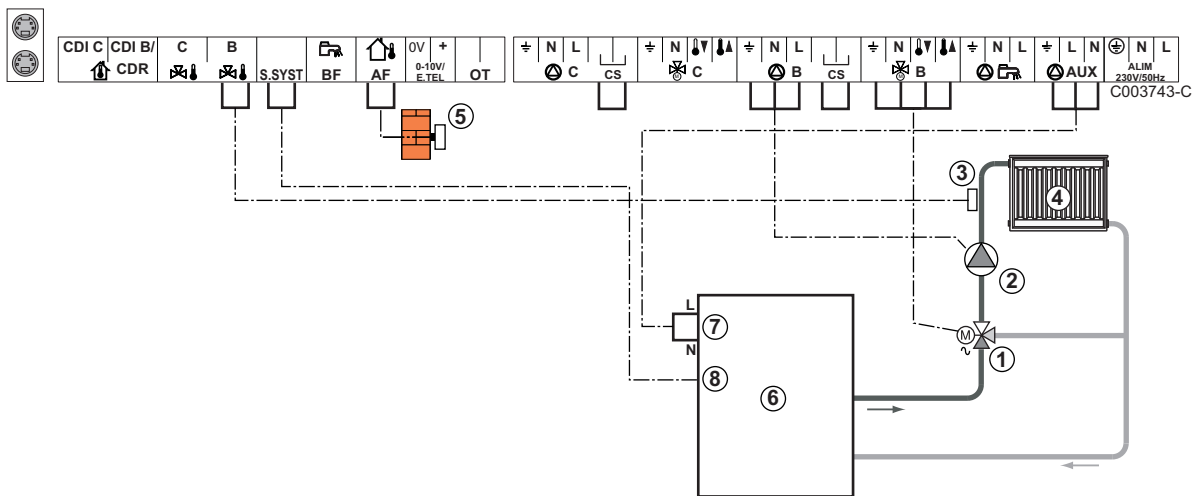
■ 1 mixed heating circuit

① 3 way valve circuit B

② Heating pump circuit B

③ Outlet sensor circuit B

④ Heating circuit B

⑤ Outside sensor

⑥ Boiler

⑦ Boiler control at 230 V

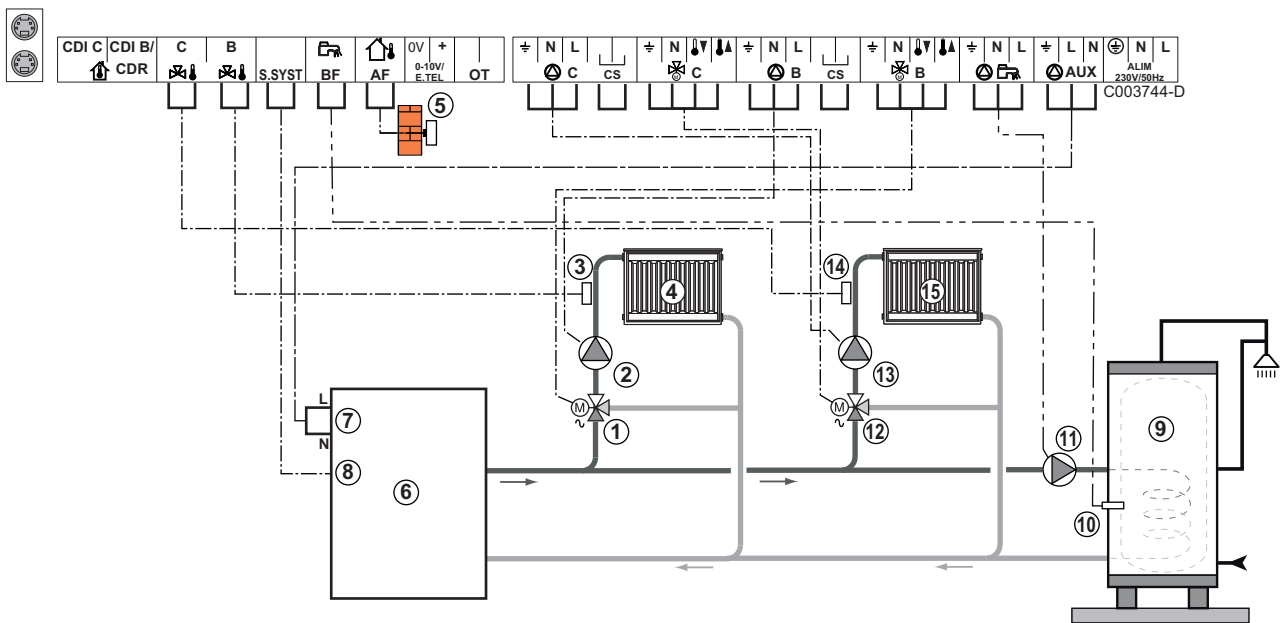⑧ System sensor used as boiler sensor

⚠ **CAUTION**

The VM iSense Pro module does not fulfil the boiler's overheating safety functions.

> ⓘ
> ‣ Earth the various pumps and 3-way valves.
> ‣ Connect a safety thermostat if the heating circuit is for underfloor heating.

Settings to be made for this type of installation			
Parameters	Access	Settings to be made	See chapter
CIRC.CURVE B	Installer level Menu #SECONDARY INSTAL.P	To be customised	☞ "Setting the heating curve", page 52
MAX. CIRC. B	Installer level Menu #SECONDARY LIMITS	To be customised	☞ "Professional settings", page 56

■ 2 mixed heating circuits and 1 DHW circuit

C003744-D

①   3 way valve circuit B

②   Heating pump circuit B

③   Outlet sensor circuit B

④   Heating circuit B

⑤   Outside sensor

⑥   Boiler

⑦   Boiler control at 230 V

⑧   System sensor used as boiler sensor

⑨   DHW storage tank

⑩   DHW sensor

⑪   D.H.W. load pump

⑫   3 way valve circuit C

⑬   Heating pump circuit C

⑭   Outlet sensor circuit C
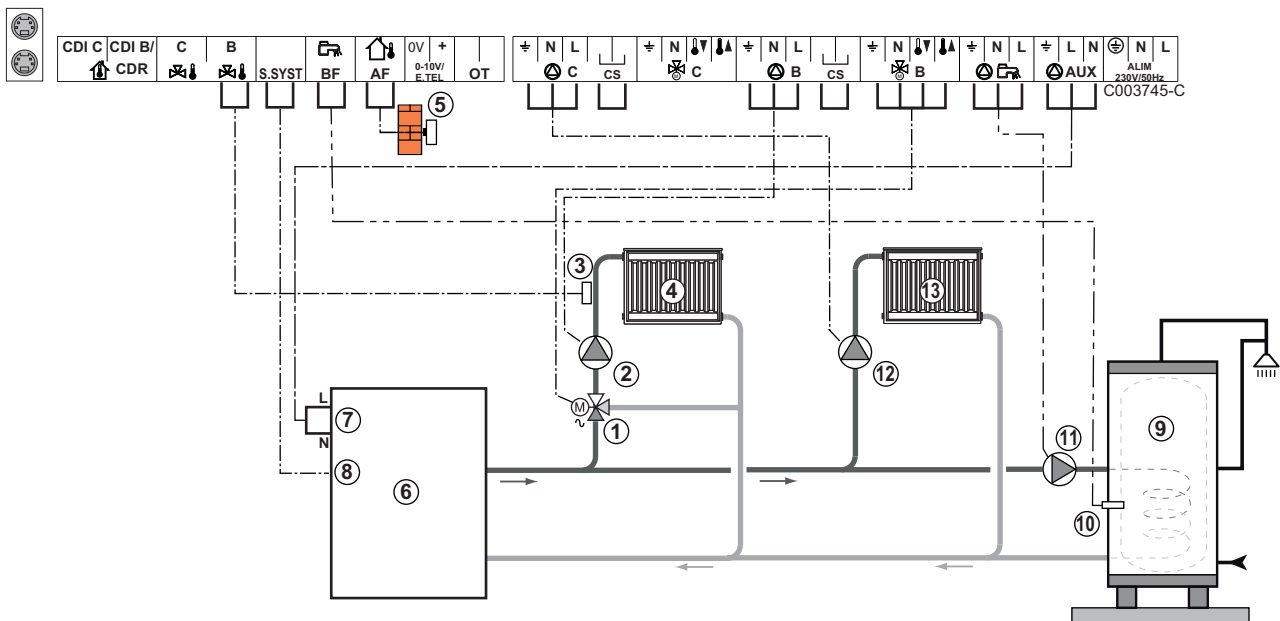
⑮   Heating circuit C

⚠️ **CAUTION**

The VM iSense Pro module does not fulfil the boiler's overheating safety functions.

ℹ️ ▸ Earth the various pumps and 3-way valves.
   ▸ Connect a safety thermostat if the heating circuit is for underfloor heating.

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
CIRC.CURVE B	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	🖝 "Setting the heating curve", page 52
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	To be customised	🖝 "Professional settings", page 56
CIRC.CURVE C	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	🖝 "Setting the heating curve", page 52
MAX. CIRC. C	Installer level Menu **#SECONDARY LIMITS**	To be customised	🖝 "Professional settings", page 56

■ **1 direct heating circuit + 1 mixed heating circuit + 1 DHW circuit**

C003745-C

①   3 way valve circuit B

②   Heating pump circuit B

③   Outlet sensor circuit B

④   Heating circuit B

⑤   Outside sensor

⑥   Boiler

⑦   Boiler control at 230 V

⑧   System sensor used as boiler sensor

⑨ DHW storage tank

⑩ DHW sensor

⑪ D.H.W. load pump

⑫ Heating pump circuit C

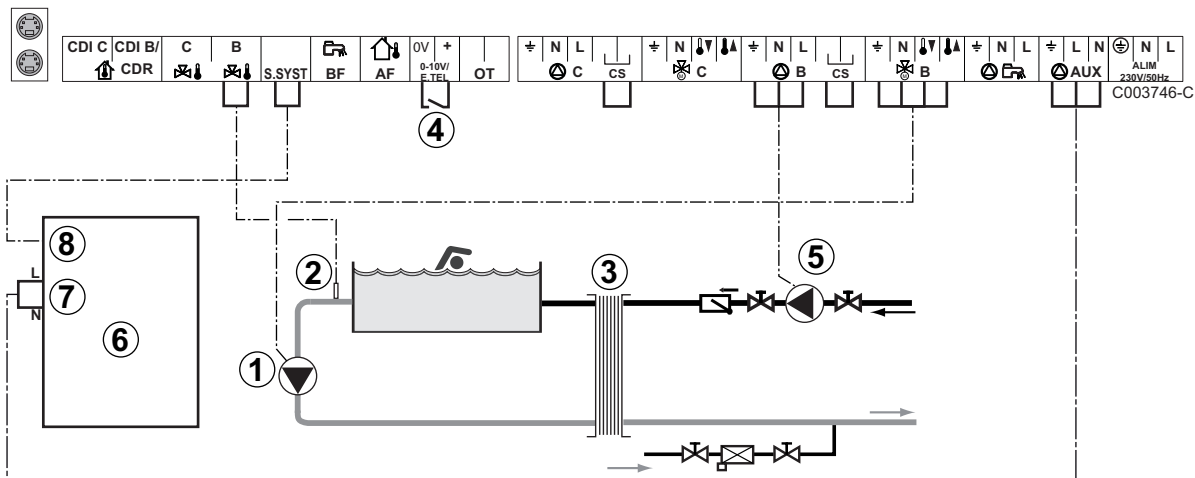⑬ Heating circuit C

> ⚠ **CAUTION**
>
> The VM iSense Pro module does not fulfil the boiler's overheating safety functions.

> **i**
> ▸ Earth the various pumps and 3-way valves.
> ▸ Connect a safety thermostat if the heating circuit is for underfloor heating.

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	👉 "Displaying the parameters in extended mode", page 48
CIRC.CURVE B	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	👉 "Setting the heating curve", page 52
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	To be customised	👉 "Professional settings", page 56
If circuit C is a direct circuit without a flow sensor: **CIRC. C:**[1]	Installer level Menu **#SYSTEM**	**DIRECT**	👉 "Setting the parameters specific to the installation", page 48
CIRC.CURVE C	Installer level Menu **#SECONDARY INSTAL.P**	To be customised	👉 "Setting the heating curve", page 52
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**.			

■ Pool connection

① Connect the secondary swimming pool pump.

② Connect the swimming pool sensor.

③   Plate heat exchanger.

④   Pool heating cut-off control

> **ℹ** When the parameter **I.TEL:** is on **0/1 B**, the swimming pool is no longer heated when the contact is open (factory setting), only the antifreeze continues to be active.
> The contact direction can still be adjusted by the parameter **CT.TEL**.

⑤   Connect the primary swimming pool pump.

⑥   Boiler

⑦   Boiler control at 230 V

⑧   System sensor used as boiler sensor

> ⚠ **CAUTION**
>
> The VM iSense Pro module does not fulfil the boiler's overheating safety functions.

Settings to be made for this type of installation			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
MAX. CIRC. B	Installer level Menu **#SECONDARY LIMITS**	Set the value of **MAX. CIRC. B** to the temperature corresponding to the needs of the exchanger	☞ "Professional settings", page 56
CIRC. B:[1]	Installer level Menu **#SYSTEM**	**SWIM.P.**	☞ "Setting the parameters specific to the installation", page 48
If a heating shutdown command is connected to the 0-10V inlet on the terminal block: **IN 0-10V**	Installer level Menu **#SYSTEM**	**NO**	☞ "Setting the parameters specific to the installation", page 48
If a heating shutdown command is connected to the 0-10V inlet on the terminal block: **I.TEL:**[2]	Installer level Menu **#SYSTEM**	**0/1 B**	☞ "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**.			
(2) The parameter is only displayed if the parameter **IN 0-10V** is set to **OFF**.			

Controlling the pool circuit

The control system can be used to manage a swimming pool circuit in both cases:

Case 1: The control system regulates the primary circuit (boiler/exchanger) and the secondary circuit (exchanger/pool).

▸ Connect the primary circuit pump (boiler/exchanger) to the pump **B** outlet. The temperature **MAX. CIRC. B** is then guaranteed during comfort periods on programme **B** in summer and winter alike.

▸ Connect the pool sensor (package AD212) to the **S OUTL B** input.

▸ Set the set point of the pool sensor using key 🌡 in the range 5 - 39°C.

Case 2: The pool has already a regulation system that is to be kept. The control system only regulates the primary circuit (boiler/exchanger).

▸ Connect the primary circuit pump (boiler/exchanger) to the pump **B** outlet.
The temperature **MAX. CIRC. B** is then guaranteed during comfort periods on programme **B** in summer and winter alike.

i The swimming pool can also be connected to circuit **C**:

▸ Make the connection to the terminal blocks marked **C**.

▸ Set the parameters for circuit **C**.
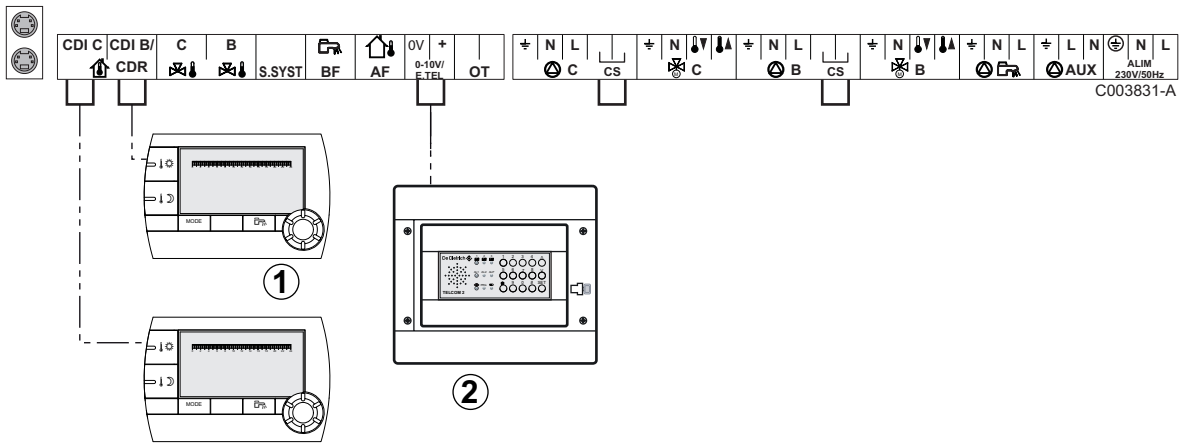
Hourly programming of the secondary circuit pump

The secondary pump operates during programme **B** comfort periods in summer and winter alike.

Stopping

To prepare your pool for winter, consult your pool specialist.

■ **Connecting the options**

For example: TELCOM remote vocal monitoring module, remote controls for circuits **B** and **C**, second DHW tank


① Connect the remote control (Package AD258/FM52).

② Connect the TELCOM remote vocal monitoring module.

Settings to be made for this type of installation			
Parameters	Access	Settings to be made	See chapter
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	👉 "Displaying the parameters in extended mode", page 48
If a remote monitoring module is connected to the 0-10V inlet on the terminal block: **IN 0-10V**	Installer level Menu **#SYSTEM**	**NO**	👉 "Setting the parameters specific to the installation", page 48
If a remote monitoring module is connected to the 0-10V inlet on the terminal block: **I.TEL:**[1]	Installer level Menu **#SYSTEM**	**ANTIFR**	👉 "Setting the parameters specific to the installation", page 48
(1) The parameter is only displayed if the parameter **IN 0-10V** is set to **OFF**.			

4.7.2.   Slave control system in cascade

■ Connecting 2 x 2 valve circuits and a DHW tank

C003747-D
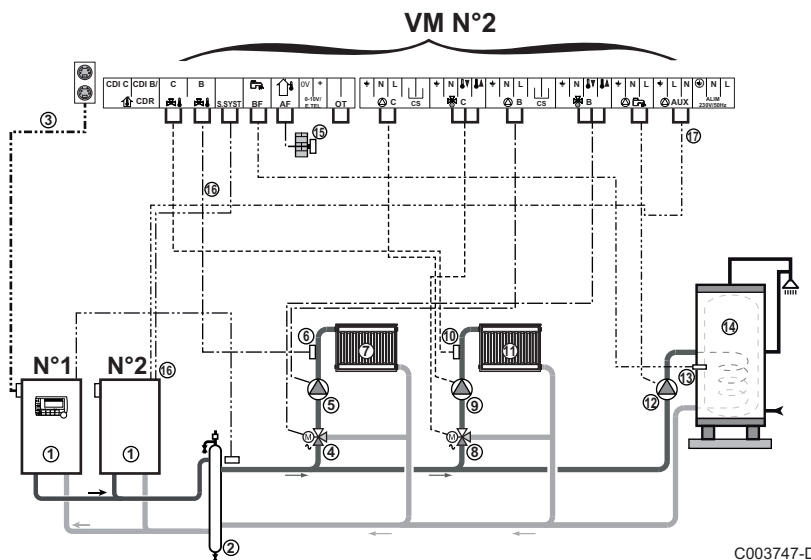
ℹ️ DHW priority is activated on all of the system's secondary circuits.

① Secondary boiler

② Low loss header

③ BUS cable

④ 3 way valve circuit B

⑤ Heating pump circuit B

⑥ Outlet sensor circuit B

⑦ Heating circuit B

⑧ 3 way valve circuit C

⑨ Heating pump circuit C

⑩ Outlet sensor circuit C

⑪   Heating circuit C

⑫   D.H.W. load pump

⑬   DHW sensor

⑭   DHW storage tank

⑮   Outside sensor (Optional)

⑯   System sensor used as boiler sensor

⑰   Boiler control at 230 V

Settings to be made for this type of installation: VM iSense Pro slave module			
Parameters	**Access**	**Settings to be made**	**See chapter**
INSTALLATION	Installer level Menu **#SYSTEM**	**EXTENDED**	☞ "Displaying the parameters in extended mode", page 48
CASCADE:[1]	Installer level Menu **#NETWORK**	**ON**	☞ "Configuring the network", page 63
MASTER CONTROLLER[1]	Installer level Menu **#SYSTEM**	**OFF**	
SLAVE NUMBER[1]	Installer level Menu **#SYSTEM**	2, 3, ...	
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**			

5 Operating the appliance

5.1 Powering up for the first time

C003569-A

C002286-C

C003568-D
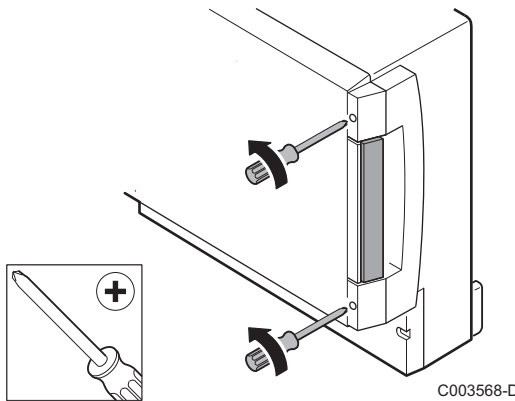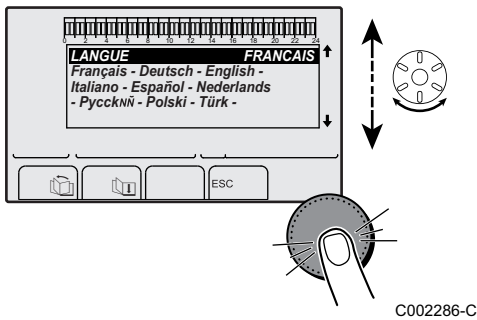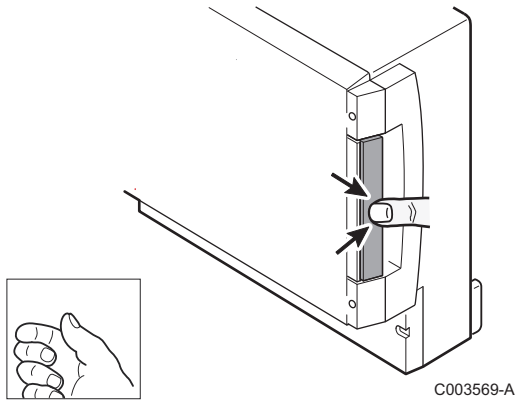
1. Press the spring-loaded tab to open the protective cover.
2. Press button **ON**.
3. Press button **AUTO**.
4. The first time the boiler is powered up, the **LANGUAGE** menu is displayed. Select the desired language by turning the rotary button.
5. To confirm, press the rotary button.
6. Set parameter **CONFIGURATION**. Select the desired setting:

| Setting	Description
VM/MR	Operation with all Diematic control systems - No DHW priority. **If CONFIGURATION parameter is set to VM/MR**: 1. Press key 🔧 for around 5 seconds. 2. Select the menu **#SYSTEM**. 3. Set the parameter **INSTALLATION** to **EXTENDED**. 4. Select the menu **#NETWORK**. 5. Select the parameter **VM NUMBER**. 6. Assign a code (from 20 to 39) to the appliance. The codes assigned to the devices must always be done in increasing order starting with **20** and without omitting any numbers. Never assign the same code to 2 different VM iSense Pro control systems.
3WV+	Operation with Diematic-m 3 - iSense Pro control systems - DHW priority available.
0/1+V3V	Control for an ON/OFF generator
OTH+3WV	Control for a generator by BUS OpenTherm

7. To confirm, press the rotary button.
8. Insert the 2 screws (provided in the documentation bag) at the front of the module to guarantee protection rating IP21.

5.2 Access to the various browsing levels

5.2.1. User level

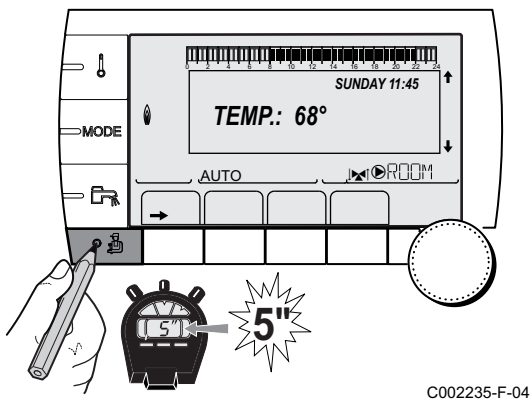The information and settings in the User level can be accessed by everyone.

1. Press the ➜ key.

C002219-D-04
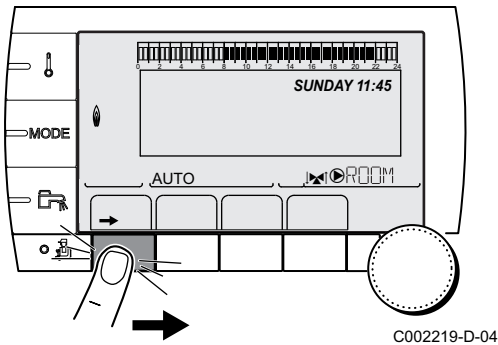
5.2.2. Installer level

The information and settings in the Installer level can be accessed by experienced people.

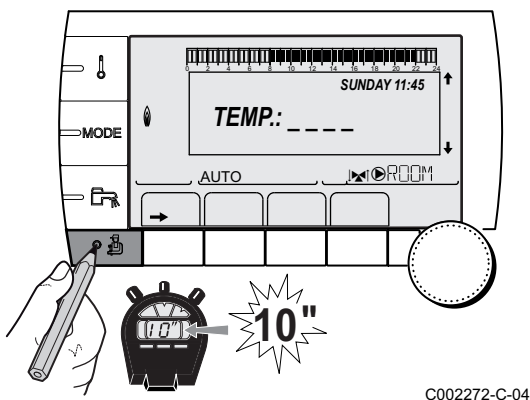1. Press key 🔧 for around 5 seconds.

C002235-F-04

5.2.3. After Sales level

The information and settings in the After Sales level can be accessed by initiates.

1. Press key 🔧 for around 10 seconds.

> **i**   Before the After Sales level is displayed, the Installer level will be displayed. Hold down the 🔧 key until **#PARAMETERS** is displayed.

C002272-C-04

5.3 Browsing in the menus
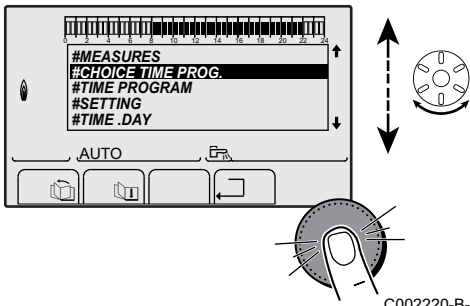
C002220-B-04

1. To select the desired menu, turn the rotary button.
2. To access the menu, press the rotary button.
   To go back to the previous display, press the key ⌐.
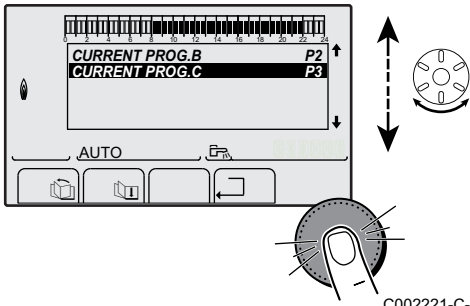
C002221-C-04

3. To select the desired parameter, turn the rotary button.
4. To modify the parameter, press the rotary button.
   To go back to the previous display, press the key ⌐.
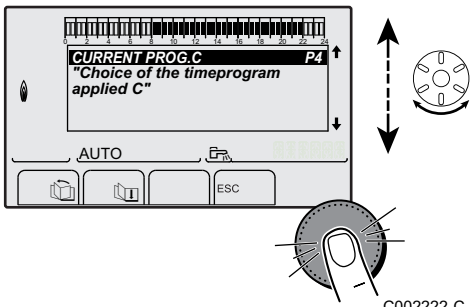
C002222-C-04

5. To modify the parameter, turn the rotary button.
6. To confirm, press the rotary button.

   i To cancel, press key ESC.
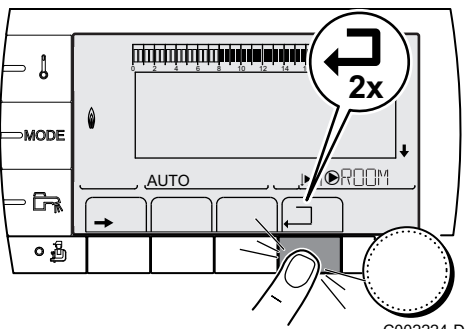
C002224-D-04

7. To go back to the main display, press key ⌐ 2 times.

   i It is possible to use the ⬚ and ⬚ keys instead of the rotary button.

5.4   Reading out measured values

The various values measured by the appliance are displayed in the **#MEASURES** menu.

1. To access user level: Press the ➡ key.

2. Select the menu **#MEASURES**.

ℹ

‣ Turn the rotary button to scroll through the menus or modify a value.

‣ Press the rotary button to access the menu selected or confirm a value modification.

☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46.

C002219-D-04

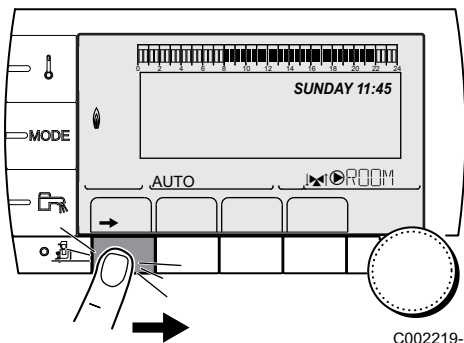| Parameter	Description	Unit
User level - #MEASURES menu		
OUTSIDE TEMP.	Outside temperature	°C
ROOMTEMP. B [1]	Room temperature of circuit B	°C
ROOMTEMP. C [1]	Room temperature of circuit C	°C
BOILER TEMP.[2]	Water temperature in the boiler	°C
WATER TEMP. [1]	Water temperature in the DHW tank	°C
STOR.TANK.TEMP [1]	Water temperature in the storage tank	°C
SWIMMING P.T.B [1]	Water temperature of the swimming pool on circuit B	°C
SWIMMING P.T.C [1]	Water temperature of the swimming pool on circuit C	°C
OUTLET TEMP. B [1]	Temperature of the flow water in circuit B	°C
OUTLET TEMP. C [1]	Temperature of the flow water in circuit C	°C
SYSTEM TEMP. [1]	Temperature of the system flow water if multi-generator	°C
T.DHW BOTTOM [1]	Water temperature in the bottom of the DHW tank	°C
TEMP.TANK AUX [1]	Water temperature in the second DHW tank connected to the AUX circuit	°C
TEMP.SOL.TANK [1][2]	Temperature of the hot water produced by solar power (TS)	°C
SOLAR.COLL.T. [1][2]	Solar panel temperature (TC)	°C
SOLA.ENERGY [1][2]	Solar energy accumulated in the tank	kWh
IN 0-10V [1][2]	Voltage at input 0-10 V	V
CTRL	Software control number	
(1) The parameter is only displayed for the options, circuits or sensors actually connected. (2) According to the configuration		

5.5   Settings after powering up for the first time

### 5.5.1.   Displaying the parameters in extended mode

The display mode on the control panel is set as standard in such a way as only to show the conventional parameters. It is possible to switch to extended mode by proceeding as follows:

1. Access the installer level: Press key 👤 for around 5 seconds.

2. Select the menu **#SYSTEM**.

ℹ️
  ▸ Turn the rotary button to scroll through the menus or modify a value.
  ▸ Press the rotary button to access the menu selected or confirm a value modification.
  ☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46

3. Set parameter **INSTALLATION** to **EXTENDED**.
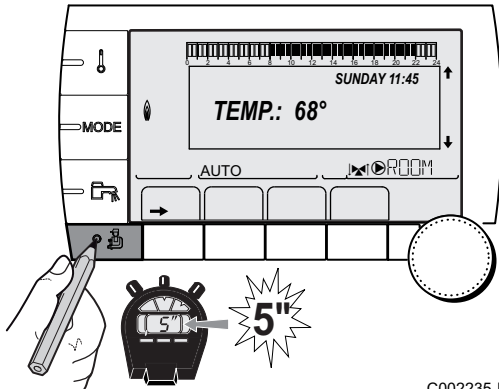
C002235-F-04

Installer level - Menu #SYSTEM				
Parameter	Adjustment range	Description	Factory setting	Customer setting
INSTALLATION	**CLASSIC**	Displays the parameters of a conventional installation	**CLASSIC**	
	EXTENDED	Displays all parameters		

ℹ️ Regardless of what is done to the keys, the regulator switches back to **CLASSIC** mode after 30 minutes.

5.5.2.   Setting the parameters specific to the installation

1. Access the installer level: Press key 👤 for around 5 seconds.

2. Select the menu **#SYSTEM**.

ℹ️
  ▸ Turn the rotary button to scroll through the menus or modify a value.
  ▸ Press the rotary button to access the menu selected or confirm a value modification.
  ☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46

3. Set the following parameters according to the connections made to the PCBs:

C002235-F-04

| Installer level - #SYSTEM menu				
Parameter	**Adjustment range**	**Description**	**Factory setting**	**Customer setting**
CIRC. B: [1]	**3WV**	Connecting a circuit with 3-way valve (For example: Underfloor heating)	**3WV**	
	SWIM.P.	Using the circuit for pool management		
	DIRECT	Use of circuit in direct heating circuit Check and set the heating curve if necessary. See chapter: ☞ "Setting the heating curve", page 52		
CIRC. C: [1]	**3WV**	Connecting a circuit with 3-way valve (For example: Underfloor heating)	**3WV**	
	SWIM.P.	Using the circuit for pool management		
	DIRECT	Use of circuit in direct heating circuit Check and set the heating curve if necessary. See chapter: ☞ "Setting the heating curve", page 52		
S.AUX: [1]	**DHW LOOP**	Use as a domestic loop pump	**DHW LOOP**	
	PROGRAM.	Use as an independent programmable outlet		
	PRIMARY PUMP	The outlet ▶AUX is active if a heating demand is present on the secondary pump		
	DHW	Use of primary circuit of second DHW tank		
	FAILURE	The outlet ▶AUX is active if an fault is detected		
	DHW ELEC	Used to control the electrical resistor according to the timer programme on circuit AUX in summer mode.		
CTC.I.SYST[2]	**CLOSE**	See table below.	**CLOSE**	
	OPEN			
I.SYST [1]	**SYSTEM**[2]	The inlet sensor is used to connect the common flow sensor of a cascade system	**SYSTEM**	
	STORAGE TANK[2]	Hot water storage tank affected to heating only		
	DHW STRAT[2]	Using the DHW tank with 2 sensors (top and bottom)		
	ST.TANK+DHW[2]	Hot water storage tank affected to heating and domestic hot water		
	ANTIFR	Start anti-freeze in boiler command		
	0/1 B	ON or OFF contact: **I.SYST** can be used as an antifreeze activation inlet on circuit **I.SYST**		
	0/1 C	ON or OFF contact: **I.SYST** can be used as an antifreeze activation inlet on circuit **I.SYST**		
	0/1 DHW	ON or OFF contact: **I.SYST** can be used as an antifreeze activation inlet on circuit **I.SYST**		
	0/1 AUX[2]	ON or OFF contact: **I.SYST** can be used as an antifreeze activation inlet on circuit **I.SYST**When **I.SYST** is not active, the auxiliary circuit (AUX) follows the maximum boiler temperature (parameter **BOILER MAX**).		
CT.TEL [1]	**CLOSE**	See table below.	**CLOSE**	
	OPEN			
(1) The parameter is only displayed if **INSTALLATION** is set to **EXTENDED** (2) According to the configuration (3) The parameter is only displayed if **IN 0-10V** is set to **OFF**				

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Installer level - #SYSTEM menu				
Parameter	**Adjustment range**	**Description**	**Factory setting**	**Customer setting**
I.TEL: [1][3]	**ANTIFR**	Start anti-freeze in boiler command	**ANTIFR**	
	0/1 B	ON or OFF contact: **I.TEL:** can be used as an antifreeze activation inlet on circuit **I.TEL:**		
	0/1 C	ON or OFF contact: **I.TEL:** can be used as an antifreeze activation inlet on circuit **I.TEL:**		
	0/1 DHW	ON or OFF contact: **I.TEL:** can be used as an antifreeze activation inlet on circuit **I.TEL:**		
	0/1 AUX[2]	ON or OFF contact: **I.TEL:** can be used as an antifreeze activation inlet on circuit **I.TEL:**When **I.TEL:** is not active, the auxiliary circuit (AUX) follows the maximum boiler temperature (parameter **BOILER MAX**).		
IN 0-10V[2]	**OFF**	The 0-10V inlet on the terminal block can be used as a telephone inlet.	**OFF**	
	ON	Activating the control at 0-10 V		
(1) The parameter is only displayed if **INSTALLATION** is set to **EXTENDED**				
(2) According to the configuration				
(3) The parameter is only displayed if **IN 0-10V** is set to **OFF**				

Influence of the parameter setting CT.TEL on the I.TEL: contact			
CT.TEL	**I.TEL:**	**I.TEL: contact closed**	**I.TEL: contact open**
CLOSE	**ANTIFR**	The antifreeze mode is active on all boiler circuits.	The mode selected on the boiler is active.
	0/1 B	The mode selected on the circuit is active.	The antifreeze mode is active on the circuit concerned.
	0/1 C	The mode selected on the circuit is active.	The antifreeze mode is active on the circuit concerned.
	0/1 DHW	The mode selected on the DHW circuit is active.	The antifreeze mode is active for the DHW circuit.
	0/1 AUX	▸ The ⏵AUX outlet on the connection terminal block is active. ▸ The boiler operates at a set point temperature equal to **BOILER MAX**.	▸ The ⏵AUX outlet on the connection terminal block is not active. ▸ The boiler operates with a set point temperature as a function of the outside temperature.
OPEN	**ANTIFR**	The mode selected on the boiler is active.	The antifreeze mode is active on all boiler circuits.
	0/1 B	The antifreeze mode is active on the circuit concerned.	The mode selected on the circuit is active.
	0/1 C	The antifreeze mode is active on the circuit concerned.	The mode selected on the circuit is active.
	0/1 DHW	The antifreeze mode is active for the DHW circuit.	The mode selected on the DHW circuit is active.
	0/1 AUX	▸ The ⏵AUX outlet on the connection terminal block is not active. ▸ The boiler operates with a set point temperature as a function of the outside temperature.	▸ The ⏵AUX outlet on the connection terminal block is active. ▸ The boiler operates at a set point temperature equal to **BOILER MAX**.

| Influence of the parameter setting CTC.I.SYST on the I.SYST contact			
CTC.I.SYST	I.SYST	I.SYST contact closed	I.SYST contact open
CLOSE	ANTIFR	The antifreeze mode is active on all boiler circuits.	The mode selected on the boiler is active.
	0/1 B	The mode selected on the circuit is active.	The antifreeze mode is active on the circuit concerned.
	0/1 C	The mode selected on the circuit is active.	The antifreeze mode is active on the circuit concerned.
	0/1 DHW	The mode selected on the DHW circuit is active.	The antifreeze mode is active for the DHW circuit.
	0/1 AUX	▸ The ▶AUX outlet on the connection terminal block is active. ▸ The boiler operates at a set point temperature equal to **BOILER MAX**.	▸ The ▶AUX outlet on the connection terminal block is not active. ▸ The boiler operates with a set point temperature as a function of the outside temperature.
OPEN	ANTIFR	The mode selected on the boiler is active.	The antifreeze mode is active on all boiler circuits.
	0/1 B	The antifreeze mode is active on the circuit concerned.	The mode selected on the circuit is active.
	0/1 C	The antifreeze mode is active on the circuit concerned.	The mode selected on the circuit is active.
	0/1 DHW	The antifreeze mode is active for the DHW circuit.	The mode selected on the DHW circuit is active.
	0/1 AUX	▸ The ▶AUX outlet on the connection terminal block is not active. ▸ The boiler operates with a set point temperature as a function of the outside temperature.	▸ The ▶AUX outlet on the connection terminal block is active. ▸ The boiler operates at a set point temperature equal to **BOILER MAX**.

5.5.3.   Naming the circuits and generators

C002235-F-04

C002344-E-04

1. Access the installer level: Press key 🔓 for around 5 seconds.
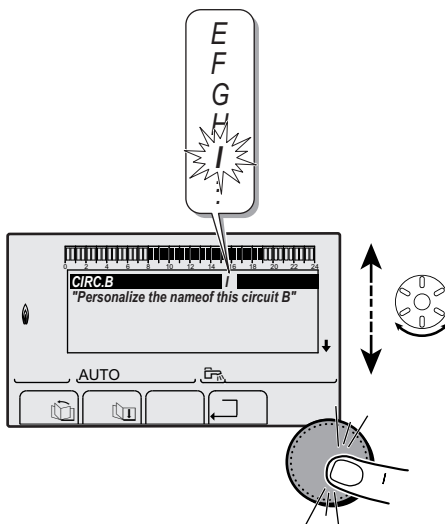2. Select the menu **#NAMES OF THE CIRCUITS**.

> ℹ️
> ▸ Turn the rotary button to scroll through the menus or modify a value.
> ▸ Press the rotary button to access the menu selected or confirm a value modification.
>
> ☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46
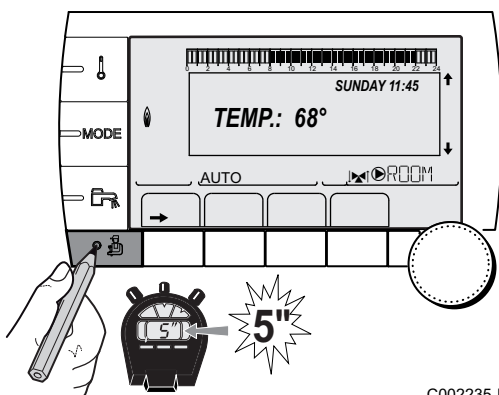
3. Select the circuit or generator you wish to rename.

| Installer level - #NAMES OF THE CIRCUITS menu		
Parameter	**Description**	**Name given by the customer**
CIRC. B:	Circuit B	
CIRC. C:	Circuit C	
CIRC.AUX	Auxiliary circuit	
CIRC.DHW	Domestic hot water circuit	
GENE	Generator	

4. Turn the rotary button to choose the first character from the list. To confirm, press the rotary button.
5. Then press again to enter a second character or turn the rotary button to leave an empty space.

6. Choose the other characters in the same way. The input zone may contain up to 6 characters.

ℹ️ To move from one character to another, turn the rotary button. To exit without modifications, press key ESC.

7. To confirm the name, press the rotary button and then turn the button slightly anti-clockwise. When the symbol ↵ appears, press the rotary button. The name is confirmed.

ℹ️ If the name reaches 6 characters, it is automatically confirmed when the last character is confirmed.
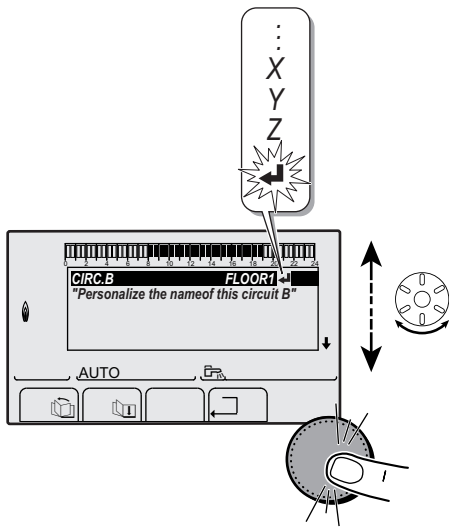
C002345-D-04

5.5.4. Setting the heating curve

1. Access the installer level: Press key 🔧 for around 5 seconds.
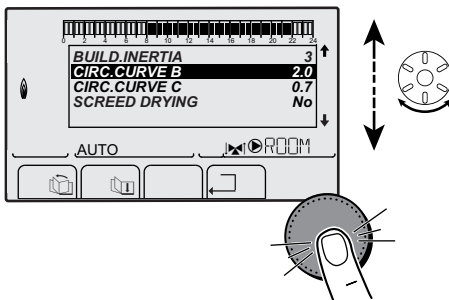
2. Select the menu **#SECONDARY INSTAL.P**.

ℹ️
   ‣ Turn the rotary button to scroll through the menus or modify a value.
   ‣ Press the rotary button to access the menu selected or confirm a value modification.

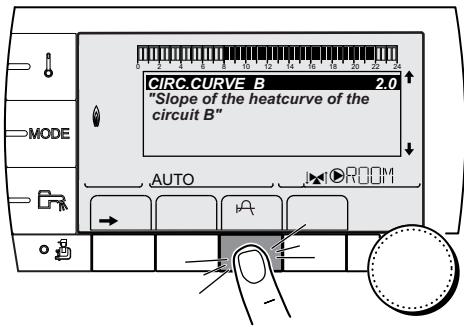   ☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46.
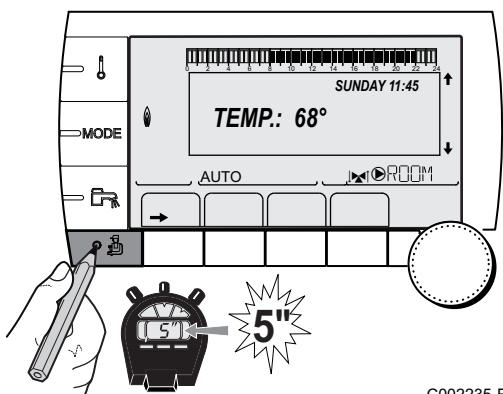
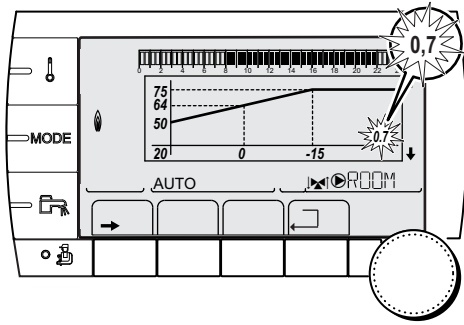C002235-F-04

3. Select the parameter **CIRC. CURVE ...**.

C002316-E-04

C002317-D-04

4. To modify the value directly, turn the rotary button.
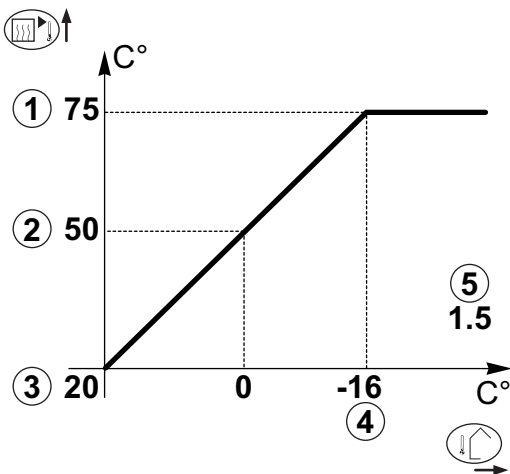   To modify the value by displaying the curve, press key ⌂.

C002318-B-04

5. To modify the curve, turn the rotary button.
6. To confirm, press the rotary button.
   To cancel, press key ESC.

ℹ   **0.7 =** Heating curve set.

■ Heating curve without BCT

The BCT (Base heat Curve Temperature) allows a minimum operating temperature to be imposed on the heating circuit (this temperature may be constant if the circuit gradient is nil).

C002319-B

①   Maximum temperature of the circuit

②   Water temperature in the circuit for an outside temperature of 0°C

③   **DAY** set point on the circuit

④   Outside temperature for which the maximum water temperature in the circuit is reached

⑤   Value of the heating curve
   This value corresponds to the parameter **HEAT.CURV.**

ℹ   When you modify the heating curve, ② and ④ are recalculated and repositioned automatically.

■ Heating curve with BCT

The BCT (Base heat Curve Temperature) allows a minimum operating temperature to be imposed on the heating circuit (this temperature may be constant if the circuit gradient is nil).

⍰ remeha
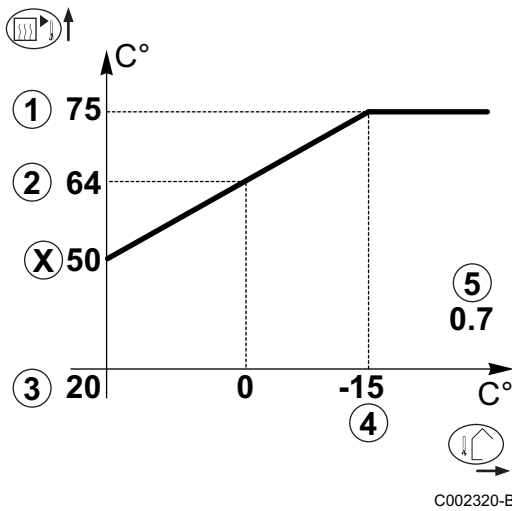
① Maximum temperature of the circuit

② Water temperature in the circuit for an outside temperature of 0°C

③ **DAY** set point on the circuit

④ Outside temperature for which the maximum water temperature in the circuit is reached

⑤ Value of the heating curve
This value corresponds to the parameter **HEAT.CURV.**

x Value set to the parameter **HCZP D**

When you modify the heating curve, ② and ④ are recalculated and repositioned automatically.

C002320-B

5.6   Changing the settings

The module is set for the most common heating systems. With these settings, practically all heating systems operate correctly. The user or installer can optimise the parameters according to own preferences.

☞ For the user settings, refer to the user instructions.

5.6.1.   Language selection

1. Access the installer level: Press key 🔧 for around 5 seconds.

2. Select the menu **#LANGUAGE**.

▸ Turn the rotary button to scroll through the menus or modify a value.

▸ Press the rotary button to access the menu selected or confirm a value modification.

☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46
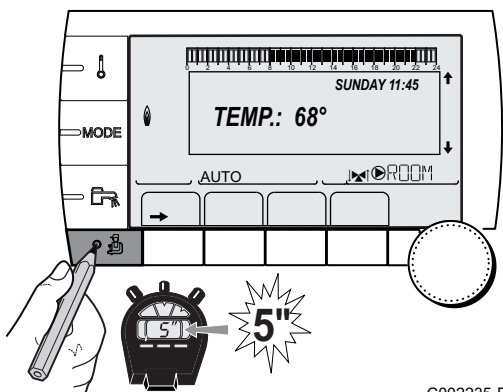
C002235-F-04

Installer level - Menu #LANGUAGE	
Adjustment range	Description
FRANCAIS	Display in French
DEUTSCH	Display in German
ENGLISH	Display in English
ITALIANO	Display in Italian
ESPANOL	Display in Spanish
NEDERLANDS	Display in Dutch
POLSKI	Display in Polish
РУССКИЙ	Display in Russian
TÜRK	Display in Turkish

5.6.2. Defining the configuration mode

C002235-F-04

1. Access the installer level: Press key 🔧 for around 5 seconds.
2. Select the menu **#SYSTEM**.

ℹ️
    ▸   Turn the rotary button to scroll through the menus or modify a value.

    ▸   Press the rotary button to access the menu selected or confirm a value modification.
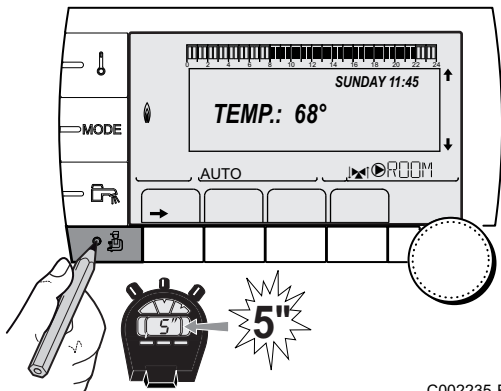
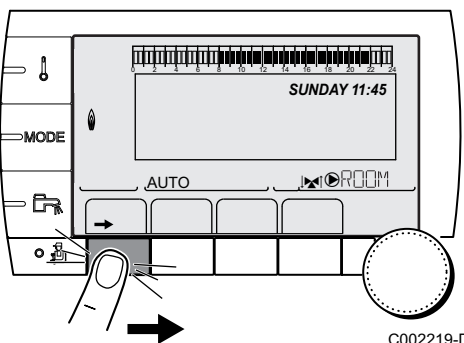👉 For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46

3. Set parameter **CONFIGURATION**:

Installer level - #SYSTEM menu			
Parameter	**Adjustment range**	**Description**	**Customer setting**
CONFIGURATION	VM/MR	Operation with all Diematic control systems - No DHW priority. **If CONFIGURATION parameter is set to VM/MR**: 1. Select the menu **#NETWORK**. 2. Select the parameter **VM NUMBER**. 3. Assign a code (from 20 to 39) to the appliance. The codes assigned to the devices must always be done in increasing order starting with **20** and without omitting any numbers. Never assign the same code to 2 different VM iSense Pro control systems.	
	3WV+	Operation with Diematic-m 3 - iSense Pro control systems - DHW priority available.	
	0/1+V3V	Control for an ON/OFF generator	
	OTH+3WV	Control for a generator by BUS OpenTherm	

5.6.3. Calibrating the sensors

C002219-D-04

1. To access user level: Press the ➡ key.
2. Select the menu **#SETTING**.

ℹ️
    ▸   Turn the rotary button to scroll through the menus or modify a value.

    ▸   Press the rotary button to access the menu selected or confirm a value modification.

👉 For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46

3. To set the following parameters:

| User level - #SETTING menu				
Parameter	**Adjustment range**	**Description**	**Factory setting**	**Customer setting**
SUM/WIN	15 to 30 °C	Used to set the outside temperature above which heating will be shut down. ▸ The heating pumps are shut down. ▸ Domestic hot water continues to be produced. ▸ The symbol ⌂ appears.	22 °C	
	NO	Heating is never shut down automatically		
CALIBR. OUT		Outside sensor calibration: Used to correct the outside temperature	Outside temperature	
CALIBR. ROOM B (1)(2)(3)		Calibration of the room sensor on circuit B: Is used to set a room offset Make this setting 2 hours after switching on, when the room temperature has stabilised	Room temperature of circuit B	
OFFSET ROOM B (1)(4)(3)	-5.0 to +5.0 °C	Room offset on circuit B: Is used to set a room offset Make this setting 2 hours after switching on, when the room temperature has stabilised	0.0	
ANTIFR. ROOM B (1)(2)(3)	0.5 to 20 °C	Room temperature at which the antifreeze mode is activated on circuit B	6 °C	
CALIBR. ROOM C (1)(2)(3)		Calibration of the room sensor on circuit C: Is used to set a room offset Make this setting 2 hours after switching on, when the room temperature has stabilised	Room temperature of circuit C	
OFFSET ROOM C (1)(4)(3)	-5.0 to +5.0 °C	Room offset on circuit C: Is used to set a room offset Make this setting 2 hours after switching on, when the room temperature has stabilised	0.0	
ANTIFR. ROOM C (1)(2)(3)	0.5 to 20 °C	Room temperature antifreeze activation on circuit C	6 °C	
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED** (2) The parameter is only displayed if a room sensor is connected to the circuit concerned (3) The parameter is only displayed if the circuit concerned is actually connected (4) The parameter is only displayed if no room sensor is connected to the circuit concerned or the sensor has no influence				

5.6.4.   Professional settings

C002235-F-04

1. Access the installer level: Press key 🔧 for around 5 seconds.

2. To set the following parameters:

ℹ️

▸ Turn the rotary button to scroll through the menus or modify a value.

▸ Press the rotary button to access the menu selected or confirm a value modification.

☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46.
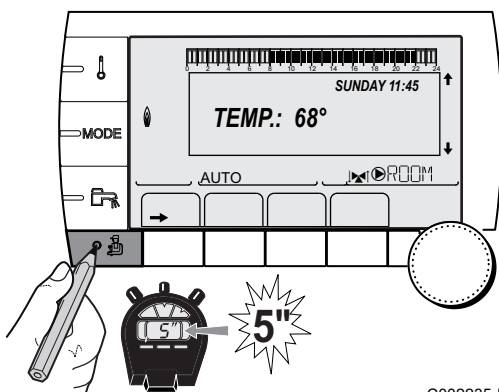
Installer level - #PRIMARY LIMITS menu[1]

Parameter	Adjustment range	Description	Factory setting	Customer setting
BOILER MAX[1]	40 to 90 °C	Maximum temperature authorised by the boiler	90 °C	
BOILER MIN[1]	10 to 50 °C	Minimum temperature authorised by the boiler	20 °C	
(1) According to the configuration				

Installer level - #SECONDARY LIMITS menu

Parameter	Adjustment range	Description	Factory setting
MAX.CIRC.B	20 to 95 °C	Maximum temperature (Circuit B) ☞ "**MAX.CIRC...**", page 60	50 °C
MAX.CIRC.C	20 to 95 °C	Maximum temperature (Circuit C) ☞ "**MAX.CIRC...**", page 60	50 °C
OUT.ANTIFREEZE	**OFF**, -8 to +10 °C	Outside temperature at which the installation's antifreeze protection is activated. Below this temperature the pumps are permanently on and the minimum temperatures for each circuit are respected. When **NIGHT : STOP** is set, the reduced temperature is maintained in each circuit (**#SECONDARY INSTAL.P** menu). **OFF**: Antifreeze protection is not activated	+3 °C
HCZP D B [1][2]	**OFF**, 20 to 90 °C	Curve base temperature in Daytime mode (Circuit B)	**OFF**
HCZP N B [1][2]	**OFF**, 20 to 90 °C	Curve base temperature in Nighttime mode (Circuit B)	**OFF**
HCZP D C [1][2]	**OFF**, 20 to 90 °C	Curve base temperature in Daytime mode (Circuit C)	**OFF**
HCZP N C [1][2]	**OFF**, 20 to 90 °C	Curve base temperature in Nighttime mode (Circuit C)	**OFF**
PRIM.TEMP.DHW[1]	50 to 90 °C	Set point temperature if domestic hot water production	80 °C
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**			
(2) The parameter can be set to the heating curve by pressing key ⌂.			

Installer level - #SECONDARY INSTAL.P menu

Parameter	Adjustment range	Description	Factory setting	Customer setting
BUILD. INERTIA [1]	0 (10 hours) to 10 (50 hours)	Characterisation of building's inertia: 0 for a building with low thermal inertia. 3 for a building with normal thermal inertia. 10 for a building with high thermal inertia. **Modification of the factory setting is only useful in exceptional cases.**	3 (22 hours)	
CIRC.CURVE B[2]	0 to 4	Heating curve of the circuit B ☞ "**CIRC. CURVE ...**", page 60	0.7	
ANTICIP.B	0.0 to 10.0	Activation and adjustment of the anticipation time ☞ "**ANTICIP.B**, **ANTICIP.C** ", page 60	**NO**	
ROOM INFL. B [1]	0 to 10	Influence of room sensor B ☞ "**ROOM S.INFL**", page 61	3	
(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**				
(2) The parameter can be set to the heating curve by pressing key ⌂				
(3) The parameter is only displayed if **SCREED DRYING** is other than **OFF**				
(4) According to the configuration				
(5) The parameter is only displayed if **IN 0-10V** is set to **ON**.				
(6) If a reversal valve is connected, DHW priority will always be total regardless of the setting.				

Installer level - #SECONDARY INSTAL.P menu				
Parameter	**Adjustment range**	**Description**	**Factory setting**	**Customer setting**
CIRC.CURVE C[(2)]	0 to 4	Heating curve of the circuit C ☞ **"CIRC. CURVE ..."**, page 60	0.7	
ANTICIP.C	0.0 to 10.0	Activation and adjustment of the anticipation time ☞ **"ANTICIP.B**, **ANTICIP.C "**, page 60	**NO**	
ROOM INFL. C [(1)]	0 to 10	Influence of room sensor C ☞ **"ROOM S.INFL"**, page 61	3	
SCREED DRYING	NO, B, C, B+C	Drying the floor ☞ **"SCREED DRYING"**, page 61	**NO**	
START DRYING TEMP[(3)]	20 to 50 °C	Screed drying start temperature	20 °C	
STOP DRYING TEMP[(3)]	20 to 50 °C	Screed drying stop temperature	20 °C	
NB DAYS DRYING[(3)]	0 to 99		0	
NIGHT [(1)]	**DEC.**	The lower temperature is maintained (Night mode) ☞ **"NIGHT"**, page 62	**DEC.**	
	STOP	The boiler is stopped (Night mode) ☞ **"NIGHT"**, page 62		
IN 0-10V[(4)]	**OFF / TEMPERATURE**	Activating the control at 0-10 V ☞ "Function 0-10 V", page 62	**OFF**	
VMIN/OFF 0-10V [(1)(5)]	0 to 10 V	Voltage corresponding to the instruction set minimum	0.5 V	
VMAX 0-10V [(1)(5)]	0 to 10 V	Voltage corresponding to the instruction set maximum	9.5 V	
CONS.MIN 0-10V [(1)] [(5)]	10 to 70 °C	Instruction minimum set temperature	20 °C	
CONS.MAX 0-10V [(1)] [(5)]	10 to 100 °C	Maximum set temperature	80 °C	
BAND WIDTH [(1)]	4 to 16 K	Control unit bandwidth for the 3-way valves. Option of increasing the bandwidth if the valves are rapid or of reducing it if they are slow.	**12 K**	
BOIL/3WV SHIFT [(1)]	0 to 16 K	Minimum temperature difference between the boiler and the valves	**4 K**	
H. PUMP DELAY [(1)]	0 to 15 minutes	Timing of the shutdown of the heating pumps. The timing of heating pump shutdown prevents the boiler overheating.	**4 minutes**	

(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**
(2) The parameter can be set to the heating curve by pressing key ⌐A
(3) The parameter is only displayed if **SCREED DRYING** is other than **OFF**
(4) According to the configuration
(5) The parameter is only displayed if **IN 0-10V** is set to **ON**.
(6) If a reversal valve is connected, DHW priority will always be total regardless of the setting.

Installer level - #SECONDARY INSTAL.P menu				
Parameter	**Adjustment range**	**Description**	**Factory setting**	**Customer setting**
HW. PUMP DELAY[1]	0 to 15 minutes	Timing of the shutdown of the domestic hot water pump. The timing of the domestic hot water load pump shutdown prevents the boiler and the heating circuits overheating (Only if a load pump is used).	**2 minutes**	
ADAPT	**ON**	Automatic adaptation of the heating curves for each circuit with a room sensor with an influence of >0.	**ON**	
	OFF	The heating curves can only be modified manually.		
PRIORITY DHW[6]	**TOTAL**	Interruption of pool heating and reheating during domestic hot water production.	**TOTAL**	
	SLIDING	Domestic hot water production and heating on the valve circuits if the available output is sufficient and the hydraulic connection allows.		
	NO	Heating and domestic hot water production in parallel if the hydraulic connection allows. ⚠ Risk of overheating in the direct circuit.		
LEG PROTEC		The anti legionella function acts to prevent the development of legionella in the dhw tank, these bacteria are responsible for legionellosis.	**OFF**	
	OFF	Anti-legionella function not activated		
	DAILY	The tank is overheated every day from 4:00 o'clock to 5:00 o'clock		
	WEEKLY	The tank is overheated every Saturday from 4:00 o'clock to 5:00 o'clock		

(1) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**
(2) The parameter can be set to the heating curve by pressing key ⌂
(3) The parameter is only displayed if **SCREED DRYING** is other than **OFF**
(4) According to the configuration
(5) The parameter is only displayed if **IN 0-10V** is set to **ON**.
(6) If a reversal valve is connected, DHW priority will always be total regardless of the setting.

Installer level - Menu #SOLAR[1]				
Parameter	**Adjustment range**	**Description**	**Factory setting**	**Customer setting**
DEC.SOLAR DHW	0 to 30 °C	Maximum drop in the DHW set point when the solar pump is running at 100%	5°C	
REFERENCE DT	10 to 20 °C	Temperature difference that the solar pump tries to maintain between the solar DHW sensor and the panel	10°C	
MAX.T.COLLECTOR	100 to 125 °C	Temperature of the panel above which the solar pump starts up. The pump does not operate if the temperature of the solar tank is higher than 80°C	100°C	
MAX TPS PUMP	1 to 5 min	Minimum operating duration of the solar pump at 100% on start-up	1 minute	

(1) The menu is only displayed if the solar control system is connected and the **INSTALLATION** parameter is set to **EXTENDED**

| Installer level - Menu #SOLAR[1]				
Parameter	Adjustment range	Description	Factory setting	Customer setting
MIN.PUMP SPEED	50 to 100 %	Minimum speed of the solar pump	50%	
TUBULAR COLLECTOR	**YES** / **NO**	Set to **YES** if tubular collectors are used	**NO**	
MAX FLOW	0 to 20 l/min	Maximum flow rate of the solar pump ☞ **"MAX FLOW"**, page 63	6.7 l/mim.	
(1) The menu is only displayed if the solar control system is connected and the **INSTALLATION** parameter is set to **EXTENDED**				

■ **MAX.CIRC...**

⚠ **WARNING**

If using underfloor heating, do not modify the factory setting (50 °C). To install this, please consult existing legislation.

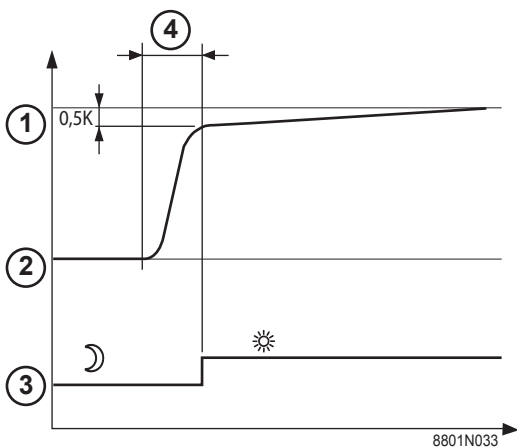Connect a safety thermostat to the CS contact on the pump connector.

■ **CIRC. CURVE ...**

Heating curve circuit B or C

M001678-B
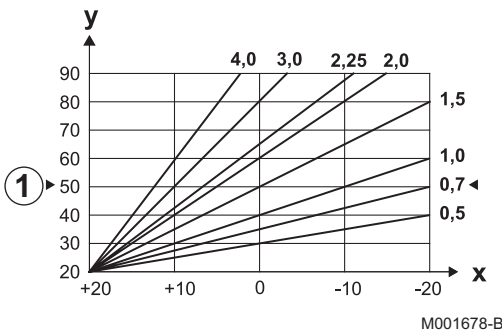
x	Outside temperature (°C)
y	Water flow temperature (°C)
①	Maximum temperature of the circuit B - C

■ **ANTICIP.B, ANTICIP.C**

①	Room temperature instruction - Comfort
②	Room temperature instruction - Low
③	Time schedule
④	Anticipation time = Accelerated reheating phase

8801N033

The anticipation function calculates the heating restart time to reach the desired room temperature less 0.5 K at the time programmed for switching to comfort mode.
The start time of the timed programmed corresponds to the end of the accelerated reheating phase.
The function is activated by setting a different **OFF** value.
The value set corresponds to the time considered necessary to return the installation to the required temperature (outside temperature 0°C), starting from a residual room temperature corresponding to the low nocturnal instruction.
Anticipation is optimised if a room sensor is connected.
The regulator will automatically fine set the anticipation time.

> **i** This function is dependent on the surplus output available in the installation.

■ SCREED DRYING

Used to force a constant flow temperature or a train to accelerate screed drying on underfloor heating.
The setting for these temperatures must follow the screed-layer's recommendations.
The activation of this parameter (setting other than **OFF**) forces the permanent display of **SCREED DRYING** and deactivates all other functions on the control unit.
When floor drying is active on a circuit, all other circuits (e.g. DHW) are shut down. The use of this function is only possible on circuits B and C.
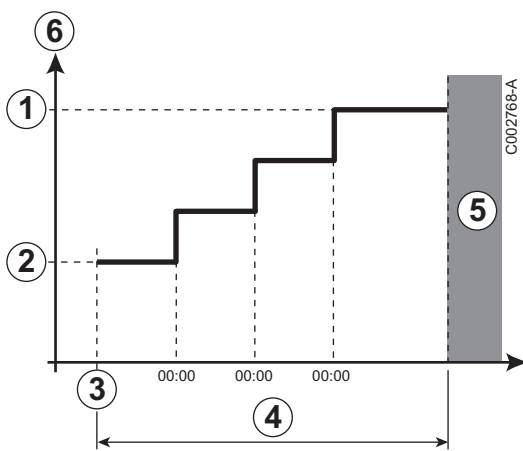
①	**STOP DRYING TEMP**
②	**START DRYING TEMP**
③	Today
④	**NB DAYS DRYING**
⑤	Normal regulation (End of drying)
⑥	Heating temperature setting (°C)
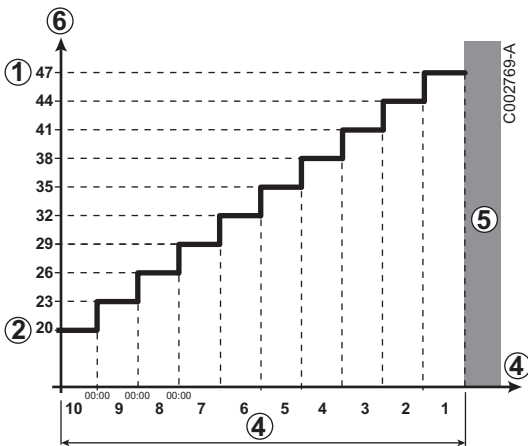
For example

①	**STOP DRYING TEMP**: **47 °C**
②	**START DRYING TEMP**: **20 °C**
④	**NB DAYS DRYING**
⑤	Normal regulation (End of drying)
⑥	Heating temperature setting (°C)

> **i** Every day at midnight (00:00): the set point (**START DRYING TEMP**) is recalculated and the remaining number of days (**NB DAYS DRYING**) is decremented.

■ ROOM S.INFL

Used to adjust the influence of the room sensor on the water temperature for the circuit concerned.

0	No influence (remote control fitted in a location with no influence)
1	Slight influence
3	Average influence (recommended)
10	Room thermostat type operation

■ NIGHT

> **i**   This parameter is displayed if at least one circuit does not include a room sensor.

For circuits without a room sensor:

▸ **NIGHT :DEC.** (Reduced): The reduced temperature is maintained during reduced periods. The circuit pump operates constantly.

▸ **NIGHT :STOP** (Stop): Heating is shut down during reduced periods. When installation antifreeze is active, the reduced temperature is maintained during reduced periods.

For circuits with a room sensor:

▸ When the room temperature is lower than the room sensor set point: The reduced temperature is maintained during reduced periods. The circuit pump operates constantly.

▸ When the room temperature is higher than the room sensor set point: Heating is shut down during reduced periods. When installation antifreeze is active, the reduced temperature is maintained during reduced periods.

■ Function 0-10 V

This function controls the boiler using an external system that includes a 0-10 V output connected to the 0-10 V input. This control imposes an instruction set temperature on the boiler. It will be necessary to ensure that the parameter **BOILER MAX** is higher than **CONS.MAX 0-10V**.

M001679-A
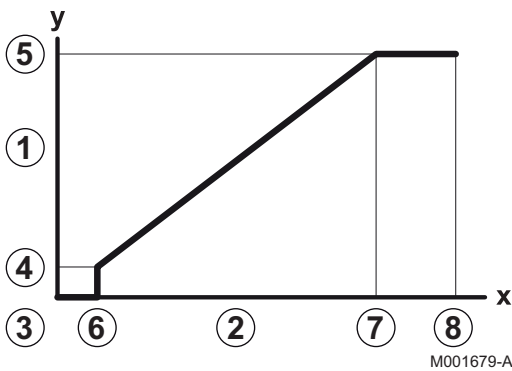
1	Instruction set outlet temperature (°C)
2	Power input signal (V) - DC
3	0 V
4	**CONS.MIN 0-10V**
5	**CONS.MAX 0-10V**
6	**VMIN/OFF 0-10V**
7	**VMAX 0-10V**
8	10 V
x	Voltage at input
y	Boiler temperature

If the input voltage is less than **VMIN/OFF 0-10V**, the boiler is off. The boiler temperature setting corresponds strictly to the 0-10 V input. The secondary boiler circuits continue to operate but have no impact on the water temperature in the boiler. If using the 0-10 V input and a secondary boiler circuit, the external regulator providing this 0-10 V power supply must always request a temperature at least equal to the needs of the secondary circuit.

■ **MAX FLOW**

In order for the regulator to calculate the quantity of heat produced by the installation (parameter kWh), input parameter **MAX FLOW**. The parameter **MAX FLOW** is equal to the flow in litres per minute in the solar circuit.
Establish the **MAX FLOW** value with the help of the table below, according to the configuration of the installation and the number or surface area of collectors.
When the flow is input incorrectly, the display kWh will also be incorrect.

i The quantity of heat (kWh value) can only be used for checks carried out for personal reasons.

Flat solar panels				
Solar panel installation	Area (m^2)	Number of panels	Flow rate (l/h)	Flow rate (l/min)
	3...5	1 or 2	400	6,7
	6...8	3 or 4	300	5,0
	8...10	4 or 5	250	4,1
	8...10	2x2	750	12,5
	12...15	2x3	670	11,2
	16...20	2x4	450	7,5
	12...15	3x2	850	14,2
	18...23	3x3	800	13,4
	24...30	3x4	650	10,9
	16...20	4x2	1200	20,0
	24...30	4x3	850	14,2

5.6.5. Configuring the network
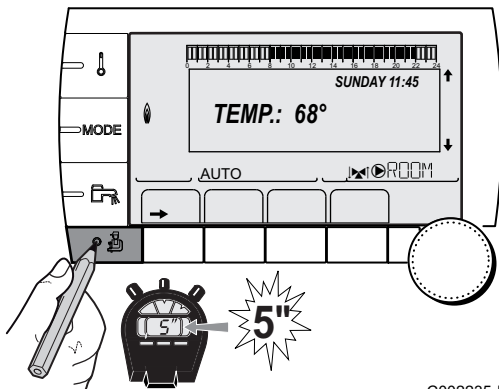

C002235-F-04

1. Access the installer level: Press key 🔧 for around 5 seconds.

2. Select the menu **#NETWORK**.

i
   ‣ Turn the rotary button to scroll through the menus or modify a value.
   ‣ Press the rotary button to access the menu selected or confirm a value modification.

   ☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46

3. To set the following parameters:

| Installer level - Menu #NETWORK[1]				
Parameter	Adjustment range	Description	Factory setting	Customer setting
VM NUMBER[2]	20 to 39	Set the module's network address	20	
CASCADE:[2]	ON / NO	ON: System in cascade	NO	
VM NETWORK[2]		Specific menu: Enlist VMs in cascade mode ☞ See chapter: "Connecting VM iSense Pro in cascade", page 65		
MASTER CONTROLLER [3]	ON / NO	Configure this control system as master on the bus	ON	
SYSTEM NETWORK [4]		Specific menu: Enlist VMs in cascade mode ☞ See chapter: "Connecting VM iSense Pro in cascade", page 65		
FUNCT [4]	CLASSIC	Operation in cascade: Successive triggering of the various boilers in the cascade according to requirements	CLASSIC	
	PARALLEL	Functioning in parallel cascade: If the outside temperature is lower than the value PARALLEL CASC., all of the boilers are started up at the same time		
PARALLEL CASC. [5]	-10 to 20 °C	Outside temperature triggering all stages in parallel mode	10 °C	
TIMER GENE P. CASC[3]	0 to 30 min	Minimum duration of post-operation of the generator pump	0 mn	
INTER STAGE TIMER [3]	1 to 60 min	Time delay for starting up or shutting down generators.	4 mn	
SLAVE NUMBER [6]	2 to 10	Set the network address of the secondary generator	2	
(1) The menu is displayed only if the INSTALLATION parameter is set to EXTENDED (2) According to the configuration (3) The parameter is only displayed if CASCADE: is set to ON (4) The parameter is only displayed if MASTER CONTROLLER is set to ON (5) The parameter is only displayed if FUNCT is set to PARALLEL (6) The parameter is only displayed if MASTER CONTROLLER is set to OFF				

■ Connecting appliances in cascade

It is possible, in a cascade configuration, to enlist generators and/or VM iSense Pro as slaves. Proceed as follows:
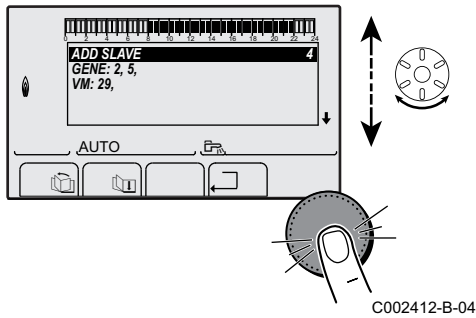
1. Set parameter **CASCADE:** to **ON**.
2. Select **SYSTEM NETWORK** and press the rotary button to go to the specific menu.
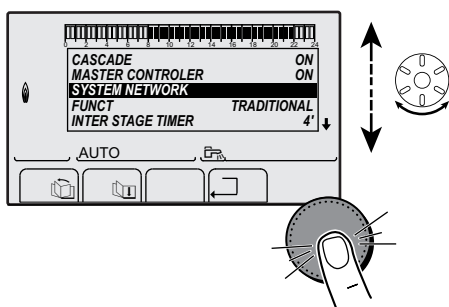

C002409-C-04
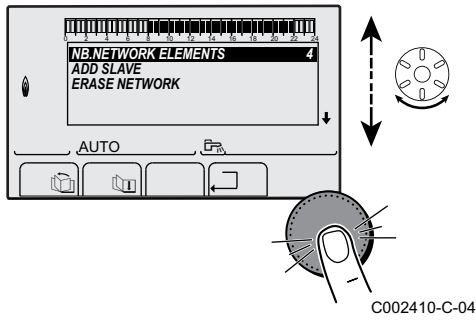
3. To add a slave appliance to the network, select **ADD SLAVE**.

4. The screen displayed allows you to choose numbers for the slave boilers to be added to the network. Numbers 2 to 10 are dedicated to the generators and numbers 20 to 39 to the VM iSense Pro. Turn the rotary button to scroll through the numbers and press to confirm the number chosen. Press ⌐ to go back to the previous list.

5. To remove a slave appliance from the network, select **ERASE NETWORK**.
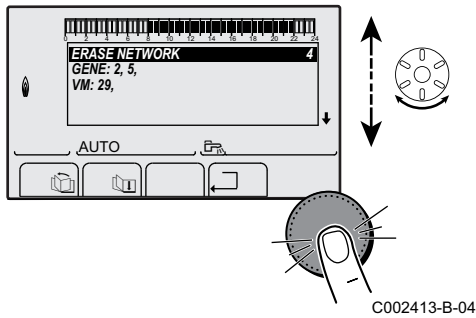
6. The screen displayed allows you to choose the numbers of the slave boilers to be removed from the network. Turn the rotary button to scroll through the numbers and press to remove the number chosen. Press ⌐ to go back to the previous list.
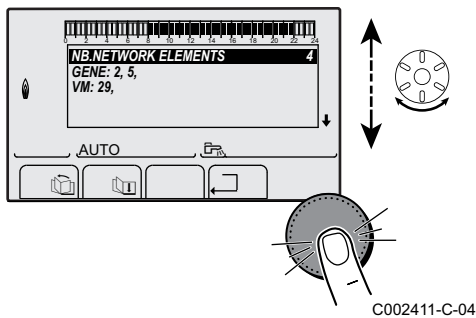
7. Select **NB. ELEMENTS.NETWORK**. This screen summarises the elements in the network recognised by the system. Press ⌐ to go back to the previous list.

■ **Connecting VM iSense Pro in cascade**

It is possible to assign VMs only as slaves. Proceed as follows:

1. Set parameter **CASCADE:** to **NO**.
2. Select **VM NETWORK** and press the rotary button to go to the specific menu.
3. The screen displayed is used to select the numbers of the slave VMs to be added to the network. Numbers 20 to 39 are dedicated to the VMs. Turn the rotary button to scroll through the numbers and press to confirm the number chosen. Press ⌐ to go back to the previous list.
4. To remove a slave VM from the network, select **DELETE VM**.

5. The screen displayed is used to select the numbers of the slave VMs to be removed from the network. Turn the rotary button to scroll through the numbers and press to remove the number chosen. Press ⌐ to go back to the previous list.

6. Select **NB. ELEMENTS.NETWORK**. This screen summarises the elements in the network recognised by the system. Press ⌐ to go back to the previous list.

## 5.6.6.   Return to the factory settings

To reset the appliance, proceed as follows:

1. Press key ⌡, ➡ and ⌐ simultaneously for 4 seconds. The menu **#RESET** is displayed.

2. To set the following parameters:

C002296-B-04
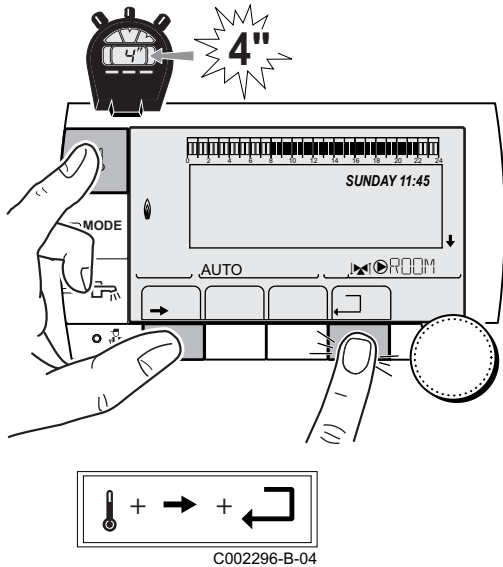
Menu #RESET			
Choice of generator	**Parameter**		**Description**
GENERATOR	**RESET**	**TOTAL**	Performs a TOTAL RESET of all parameters
		EXCEPT PROG.	Performs a parameter RESET but retains the timer programmes
		PROG.	Performs a RESET on the timer programmes but retains the parameters
		SENSOR SCU	Performs a RESET of the generator sensors connected
		ROOM SENSOR	Performs a RESET of the room sensors connected

C002286-C

After reset (**TOTAL RESET** and **RESET EXCEPT PROG.**), the control system goes back to the display of the language choice after a few seconds.

1. Select the desired language by turning the rotary button.

2. To confirm, press the rotary button.
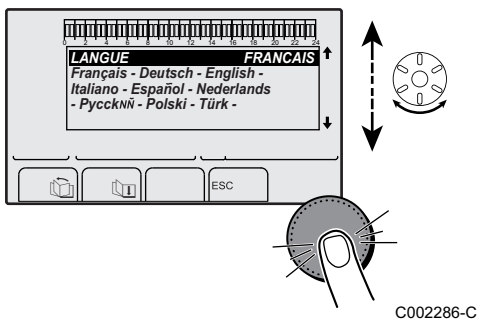
6   Switching off the appliance

6.1   Installation shutdown

⚠ **CAUTION**

Do not switch off the mains supply to the appliance. If the central heating system is not used for a long period, we recommend activating the **HOLIDAYS** mode (to ensure the anti-grip of the heating pump).

6.2   Frost protection

⚠ **CAUTION**

▸ The antifreeze protection does not function if the appliance is switched off.
▸ To protect the installation, set the appliance to **HOLIDAYS** mode.

The **HOLIDAYS** mode protects:

▸ The installation if the outside temperature is lower than 3°C (factory setting).
▸ The room temperature if a remote control is connected and the room temperature is lower than 6 °C (factory setting).
▸ The domestic hot water tank if the tank temperature is lower than 4 °C (the water is reheated to 10 °C).

To configure the holidays mode: ☞ Refer to the user instructions.

7 Troubleshooting

7.1 Installer's contact details

C002272-C-04

To display the installer's telephone number when an error is displayed, proceed as follows:

1. Access the "After Sales" level: Hold key 🔧 down until **#PARAMETERS** is displayed.
2. Select the menu **#SUPPORT**.

ℹ️
   ▸ Turn the rotary button to scroll through the menus or modify a value.
   ▸ Press the rotary button to access the menu selected or confirm a value modification.

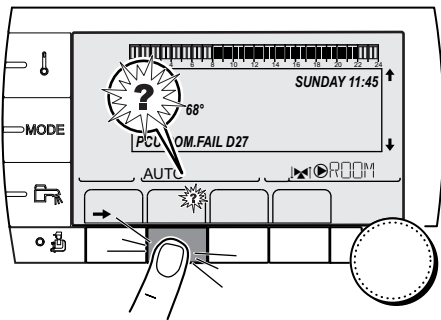   ☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46

3. To set the following parameters:

After Sales level - #SUPPORT menu	
Parameter	**Description**
NAME	Input the installer's name
TELEPHONE NUM.	Input the installer's telephone number

When an error is displayed, press **?** to display the installer's telephone number.
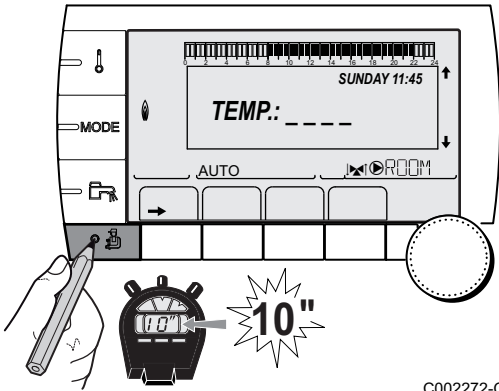
C002302-D-04

7.2   Messages (type code Mxx)

The module may display the following messages:

Code no.	Messages	Description	Checking / solution
	FL.DRY.B XX DAYS	Floor drying is active	Floor drying is underway. Heating on the circuits not concerned is shut down.
	FL.DRY.C XX DAYS	**XX** DAYS = Number of days' floor drying remaining.	
	FL.DRY.B+C XX DAYS		▸ Wait for the number of days shown to change to 0
			▸ Set the parameter **SCREED DRYING** to **OFF**
M30	**BL.COM.MODBUS**	No communication with the master regulation by the network MODBUS.	Check the wiring between the module and the master appliance.
M31	**BL.SYSTEM NETWORK**	Incorrect configuration of the network MODBUS.	▸ Check that the address of the appliance is correctly configured in the **#NETWORK** menu.
			▸ Check that the cascade configuration is set correctly on the master module.

7.3   Message history

C002272-C-04

C002381-B-04

The menu (#MESSAGE HISTORIC) is used to consult the last 10 messages displayed by the control panel.

1. Access the "After Sales" level: Hold down the 🔧 key until **#PARAMETERS** is displayed.
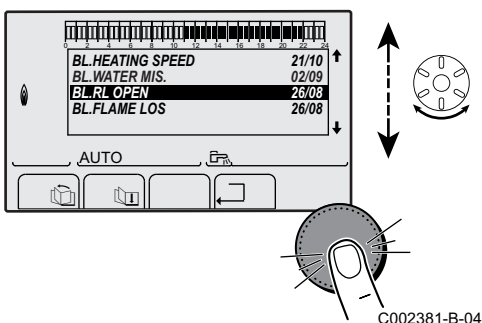
2. Select the menu (#MESSAGE HISTORIC).

ℹ️

▸   Turn the rotary button to scroll through the menus or modify a value.

▸   Press the rotary button to access the menu selected or confirm a value modification.

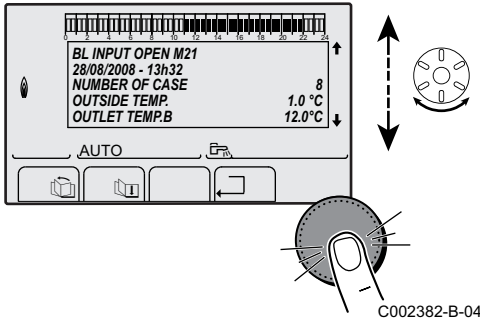☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46
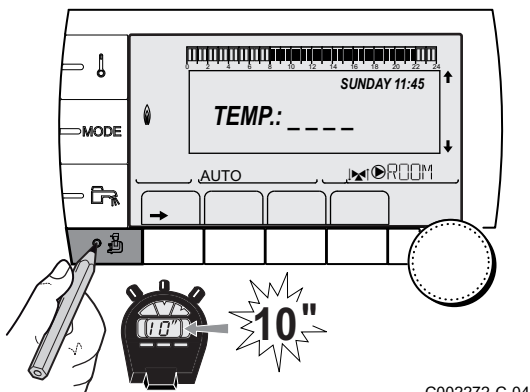
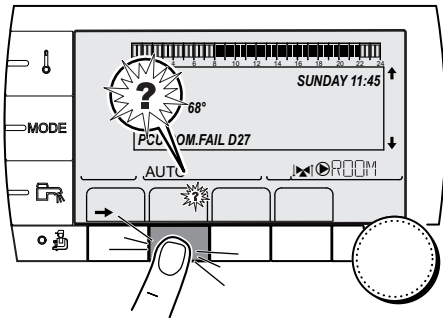3. The list of the last 10 messages is displayed.

C002382-B-04

4. Select a message to consult the information pertaining to it.

7.4   Faults

C002302-D-04

If a malfunction occurs, the module flashes and displays an error message and a corresponding code.

1. Make a note of the code displayed.
   The code is important for the correct and rapid diagnosis of the type of failure and for any technical assistance that may be needed.
2. Press the **?** key. Follow the instructions displayed to solve the problem.
3. Consult the meaning of the codes in the table below:

Code	Faults	Description	Checking / solution
D03 D04	**OUTL S.B FAIL.** **OUTL S.C FAIL.**	Circuit B flow sensor fault Circuit C flow sensor fault Remarks: The circuit pump is running. The 3-way valve motor on the circuit is no longer powered and can be adjusted manually.	Bad connection ▸ Check whether the sensor is connected: ☞ See chapter: "Deletion of sensors from the memory in the PCB", page 72 ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted Sensor fault ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary
D05	**OUTSI.S.FAIL.**	Outside temperature sensor fault Remarks: The set point of the appliance is equal to the maximum. The valve setting is no longer ensured but monitoring the maximum temperature of the circuit after the valve is ensured. Valves may be manually operated. Reheating the domestic hot water remains ensured.	Bad connection ▸ Check whether the sensor is connected ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted Sensor fault ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary

Code	Faults	Description	Checking / solution
D07	SYST.SENS.FAIL.	System sensor fault	Bad connection ▸ Check whether the sensor is connected: ☞ See chapter: "Deletion of sensors from the memory in the PCB", page 72 ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted
			Sensor fault ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary
D09	DHW S.FAILURE	Domestic hot water sensor fault Remarks: Heating of domestic hot water is no longer ensured. The load pump operates. The load temperature of the dhw tank is the same as the boiler.	Bad connection ▸ Check whether the sensor is connected: ☞ See chapter: "Deletion of sensors from the memory in the PCB", page 72 ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted
			Sensor fault ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary
D12 D13	ROOM S.B FAIL. ROOM S.C FAIL.	B room temperature sensor fault C room temperature sensor fault Note: The circuit concerned operates without any influence from the room sensor.	Bad connection ▸ Check whether the sensor is connected: ☞ See chapter: "Deletion of sensors from the memory in the PCB", page 72 ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted
			Sensor fault ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary
D14	MC COM.FAIL	Break in communication between the iSense Pro module and the boiler radio module	Bad connection ▸ Check the link and the connectors
			Boiler module failure ▸ Change the boiler module
D15	ST.TANK S.FAIL	Storage tank sensor fault Note: The hot water storage tank reheating operation is no longer assured.	Bad connection ▸ Check whether the sensor is connected: ☞ See chapter: "Deletion of sensors from the memory in the PCB", page 72 ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted
			Sensor fault ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary
D16 D16	SWIM.P.B. S.FAIL SWIM.P.C. S.FAIL	Swimming pool sensor fault circuit B Swimming pool sensor fault circuit C Note: Pool reheating is independent of its temperature.	Bad connection ▸ Check whether the sensor is connected: ☞ See chapter: "Deletion of sensors from the memory in the PCB", page 72 ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted
			Sensor fault ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary

Code	Faults	Description	Checking / solution
D17	DHW 2 S.FAIL	Sensor fault tank 2	**Bad connection** ▸ Check whether the sensor is connected: ☞ See chapter: "Deletion of sensors from the memory in the PCB", page 72 ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted **Sensor fault** ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary
D18	ST.TANK S.FAIL	Solar tank sensor fault	**Bad connection** ▸ Check whether the sensor is connected: ☞ See chapter: "Deletion of sensors from the memory in the PCB", page 72 ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted **Sensor fault** ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary
D19	SOL.COL.S.FAIL	Header sensor fault	**Bad connection** ▸ Check whether the sensor is connected: ☞ See chapter: "Deletion of sensors from the memory in the PCB", page 72 ▸ Check the link and the connectors ▸ Check that the sensor has been correctly fitted **Sensor fault** ▸ Check the Ohmic value of the sensor ▸ Replace the sensor if necessary
D20	SOL COM.FAIL	▸ Switch the boiler off and switch back on ▸ Check whether the solar module is switched on. If necessary, replace the fuse ☞ Refer to the installation, commissioning and service manual for the DHW tank ▸ Check the connection between the SCU-C and the solar module	
D50	DEF.COM.OTH	Break in communication between the iSense Pro module and the boiler control panel.	▸ Check the wiring between the iSense Pro module and the control panel ▸ Check that the **CONFIGURATION** parameter in the **#SYSTEM** menu is set to **OTH+3WV**
D51	DEF XX:SEE BOIL.	An error is displayed on the boiler control panel.	▸ Refer to the boiler's installation and service manual.

7.4.1. Deletion of sensors from the memory in the PCB

The configuration of the sensors is memorised by the PCB. If a sensor fault appears whilst the corresponding sensor is not connected or has been voluntarily removed, please delete the sensor from the PCB memory.

▸ Press key **?** repeatedly until **Do you want to delete this sensor?** is displayed.

▸ Select **YES** by turning the rotary button and press to confirm.

ℹ A defective outside temperature sensor cannot be deleted from the SCU PCB.

7.5 Failure history

The menu **#DEFAULT HISTORIC** is used to consult the last 10 faults displayed by the control panel.

1. Access the "After Sales" level: Hold down the 🔧 key until **#PARAMETERS** is displayed.
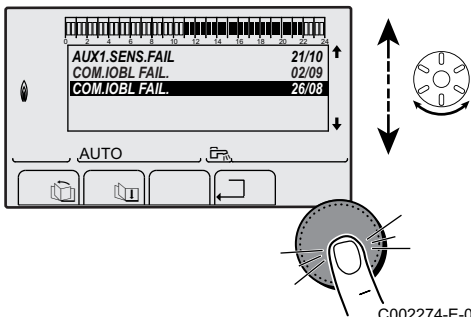
2. Select the menu **#DEFAULT HISTORIC**.

ℹ
   ‣ Turn the rotary button to scroll through the menus or modify a value.
   ‣ Press the rotary button to access the menu selected or confirm a value modification.

   ☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46
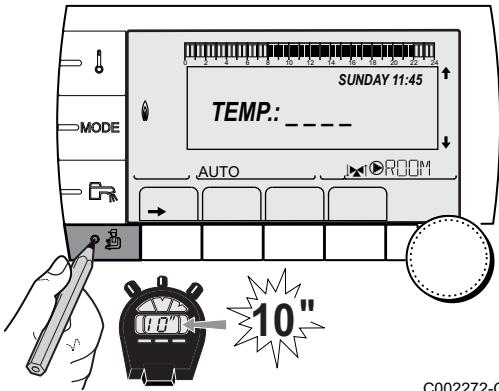
C002272-C-04

C002274-E-04

3. The list of the last 10 faults is displayed.

4. Select a fault to consult the information pertaining to it.

C002275-C-04

7.6 Parameter and input/output check (mode tests)

Use the following menus to target the cause of a malfunction.

1. Access the "After Sales" level: Hold down the 🔧 key until **#PARAMETERS** is displayed.
2. Check the following parameters:

ℹ️

▸ Turn the rotary button to scroll through the menus or modify a value.

▸ Press the rotary button to access the menu selected or confirm a value modification.

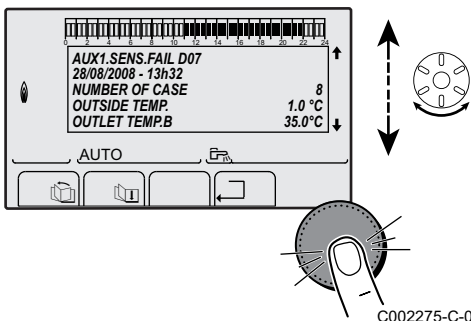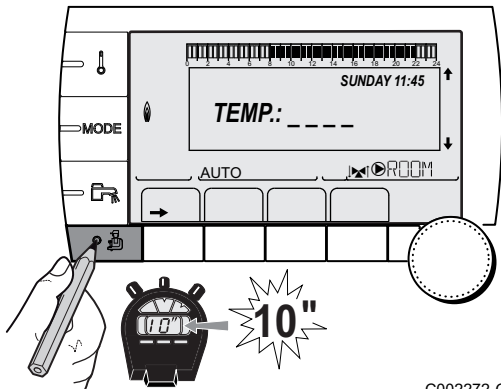☞ For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 46

C002272-C-04

After Sales level - #PARAMETERS menu	
Parameter	**Description**
PERMUT	Master boiler active
STAGE	Number of boilers requesting heating
NB.CASC.:[1]	Number of boilers recognised in the cascade
NB. VM:[1]	Number of VM iSense Pro control systems recognised in the cascade
MEAN OUTSIDE T	Average outside temperature
CALC.T. BOILER[1]	Temperature calculated by the boiler
BOILER. T. [2]	Measurement of the boiler flow sensor
CALCULATED T. B [3]	Calculated temperature for circuit B
CALCULATED T. C [3]	Calculated temperature for circuit C
OUTLET TEMP. B [2] [3]	Temperature of the flow water in circuit B
OUTLET TEMP. C [2] [3]	Temperature of the flow water in circuit C
OUTSIDE TEMP. [2]	Outside temperature
ROOMTEMP. B [2] [3]	Room temperature of circuit B
ROOMTEMP. C [2] [3]	Room temperature of circuit C
WATER TEMP. [2][3]	Water temperature in the DHW tank
IN 0-10V [2][3]	Voltage at input 0-10 V
STOR.TANK.TEMP [2] [3]	Water temperature in the storage tank
SYSTEM TEMP. [2][3]	Temperature of the system flow water if multi-generator
T.DHW BOTTOM [2][3]	Water temperature in the bottom of the DHW tank
TEMP.TANK AUX [2][3]	Water temperature in the second DHW tank connected to the AUX circuit
KNOB B[3]	Position of temperature setting button on room sensor B
KNOB C[3]	Position of temperature setting button on room sensor C
OFFSET ADAP B [3]	Parallel trigger calculated for circuit B
OFFSET ADAP C [3]	Parallel trigger calculated for circuit C
(1) According to the configuration	
(2) The parameter can be displayed by pressing key ⌂.	
(3) The parameter is only displayed for the options, circuits or sensors actually connected	

After Sales level - #TEST OUTPUTS menu

Parameter	Adjustment range	Description
P. CIRC. B [1]	ON / NO	Stop/start pump circuit B
P. CIRC. C [1]	ON / NO	Stop/start pump circuit C
HW. PUMP [1]	ON / NO	Stop/start domestic hot water pump
AUX.CIRC.	ON / NO	On/Off auxiliary outlet
3WV B [1]	REST	No command
	OPEN:	Opening 3-way valve circuit B
	CLOSE:	Closure 3-way valve circuit B
3WV C [1]	REST	No command
	OPEN:	Opening 3-way valve circuit C
	CLOSE:	Closure 3-way valve circuit C
(1) The parameter is only displayed for the options, circuits or sensors actually connected		

After Sales level - #TEST INPUTS menu

Parameter	Status OK	Description
PHONE REM.[1]	0 / 1	Status of the telephone inlet
I.SYST[2]	0 / 1	Status of the telephone inlet
R.CTRL B [3]	ON	Presence of a remote control B
	NO	No remote control B
R.CTRL C [1]	ON	Presence of a remote control C
	NO	No remote control C
(1) The parameter is only displayed if **IN 0-10V** is set to **OFF** (2) According to the setting of the **I.SYST** parameter (3) The parameter is only displayed for the options, circuits or sensors actually connected		

After Sales level - #INFORMATION menu[1]

Parameter	Adjustment range	Description
S/N SCU		Serial no. of the iSense Pro DIN control panel
CTRL		Control version
MC.VERSION [2]		Version of the boiler radio module programme
CALIBRA.CLOCK		Clock calibration
(1) The menu is displayed only if the **INSTALLATION** parameter is set to **EXTENDED** (2) The parameter is only displayed for the options, circuits or sensors actually connected		

After Sales level - #CONFIGURATION menu

Parameter	Adjustment range	Description
MODE:	MONO/ ALL.CIRC.	To chose if the exemption made for one remote control applies to a single circuit (**MONO**) or if it must be transmitted to a group of circuits (**ALL CIRC**)

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