

MCA 45 - 65 - 90 - 115



User Guide

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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.



Signals important information.




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

1.2 Abbreviations

- ▶ **3CE**: Collective conduit for sealed boiler
- ▶ **DHW**: Domestic hot water
- ▶ **Hi**: Lower heating value LHV (Nett)
- ▶ **Hs**: Higher heating value HHV (Gross)
- ▶ **PPS**: Polypropylene hardly inflammable
- ▶ **PCU**: Primary Control Unit - PCB for managing burner operation
- ▶ **PSU**: Parameter Storage Unit - Parameter storage for PCBs PCU and SU
- ▶ **SCU**: Secondary Control Unit - control panel PCB
- ▶ **SU**: Safety Unit - Safety PCB
- ▶ **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 initial 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.

1.3.3. User's liability

To guarantee optimum operation of the appliance, the user must respect the following instructions:

- ▶ Read and follow the instructions given in the manuals provided with the appliance.
- ▶ Call on qualified professionals to carry out installation and initial start up.
- ▶ Get your installer to explain your installation to you.
- ▶ Have the required checks and services done.
- ▶ Keep the instruction manuals in good condition close to the appliance.

This appliance is not intended to be used by persons (including children) whose physical, sensory or mental capacity is impaired or persons with no experience or knowledge, unless they have the benefit, through the intermediary of a person responsible for their safety, of supervision or prior instructions regarding use of the appliance. Care should be taken to ensure that children do not play with the appliance.

1.4 Certifications

CE identification no	PIN 0063CL3333
NOx classification	5 (Standards EN)
Type of connection	Chimney: B ₂₃ ⁽¹⁾ , B _{23P} ⁽¹⁾ , Flue gas outlet: C ₁₃ , C ₃₃ , C ₄₃ , C ₅₃ , C ₆₃ , C ₈₃ , C ₉₃
(1) IP20	

2 Safety instructions and recommendations

2.1 Safety instructions



DANGER

If you smell gas:

1. Do not use a naked flame, do not smoke, do not operate electrical contacts or switches (doorbell, light, motor, lift, etc..).
2. Shut off the gas supply.
3. Open the windows.
4. Evacuate the premises.
5. Call your fitter.



DANGER

If you smell flue gases:

1. Switch the appliance off.
2. Open the windows.
3. Evacuate the premises.
4. Call your fitter.



WARNING

Depending on the settings of the appliance:

- ▶ The temperature of the flue gas conduits may exceed 60°C.
- ▶ The temperature of the radiators may reach 85°C.
- ▶ The temperature of the domestic hot water may reach 65°C.



CAUTION

Do not neglect to service the appliance:

- ▶ For completely safe and optimum operation, you must have your boiler regularly serviced by an approved installer.

2.2 Recommendations



WARNING

Only qualified professionals are authorised to work on the appliance and the installation.

- ▶ Regularly check the water pressure in the installation (minimum pressure 0,8 bar, recommended pressure between 1,5 and 2,0 bar).
- ▶ Keep the appliance accessible at all times.
- ▶ Never remove or cover labels and rating plates affixed to the appliance. Labels and rating plates must be legible throughout the entire lifetime of the appliance.
- ▶ 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 Description

3.1 Operating principle

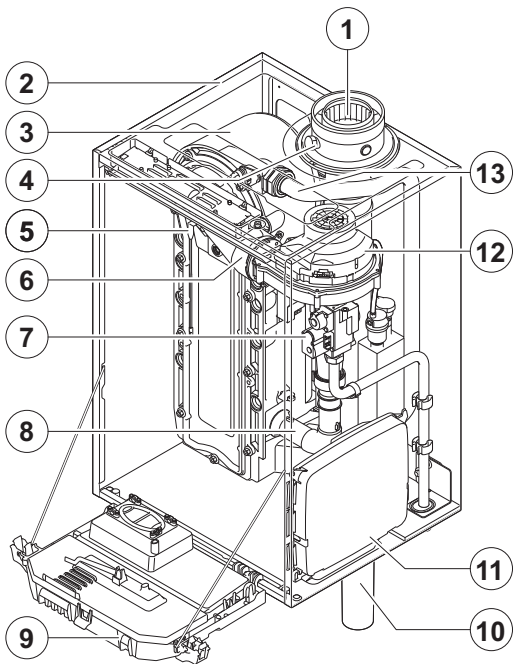
3.1.1. Gas/air setting

The casing fitted to the boiler is also used as an air box. Air is sucked in by the fan and gas injected into the venturi by the fan intake. The fan rotation speed is set according to the settings parameters, the thermal energy requirement and the temperatures measured by the temperature sensors. The gas and air are mixed in the venturi. The gas/air ratio ensures that the quantities of gas and air are adjusted to each other. This provides optimum combustion on the entire output range. The gas/air mixture is fed into the burner on top of the exchanger.

3.1.2. Combustion

The burner heats the heating water circulating in the heat exchanger. At a return temperature lower than around 55°C, the flue gases cool down to a temperature lower than the dew point, thus causing the condensation of the water vapour contained in the flue gases in the lower section of the heat exchanger. The heat released during this condensation process (the latent heat or condensing heat) is also transferred to the heating water. The cooled combustion gases are evacuated via the combustion gas outlet flue. The condensation water is evacuated via a siphon.

3.2 Main parts

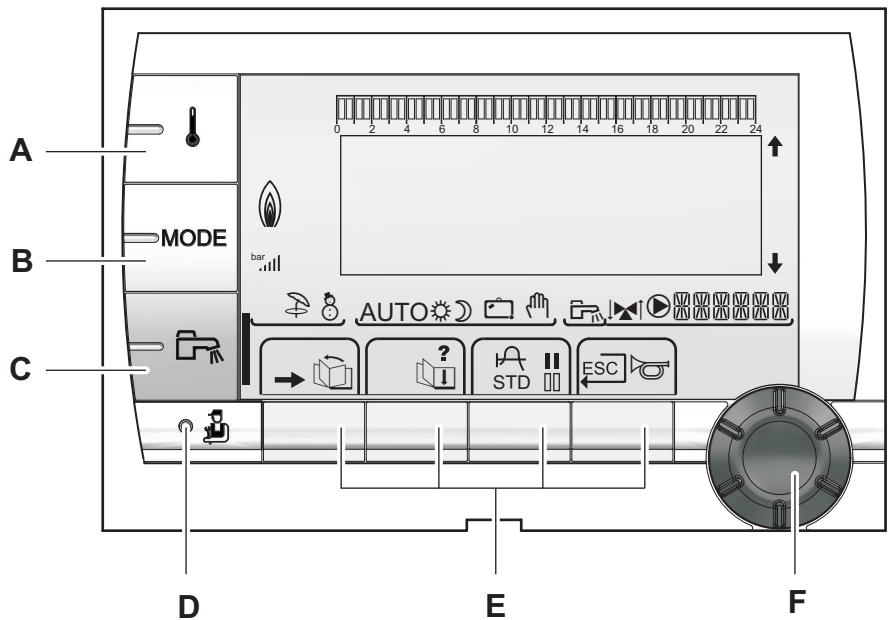


- 1 Flue gas discharge pipe / Air intake
- 2 Casing/air box
- 3 Heat exchanger (Central heating)
- 4 Outlet for measuring combustion gases
- 5 Ignition/ionization electrode
- 6 Mixer pipe
- 7 Combined venturi and gas valve unit
- 8 Air intake silencer
- 9 Instrument box
- 10 Siphon
- 11 Box for the control PCBs
- 12 Fan
- 13 Water flow pipe

T002036-B

3.3 DIEMATIC iSystem control panel

3.3.1. Description of the keys

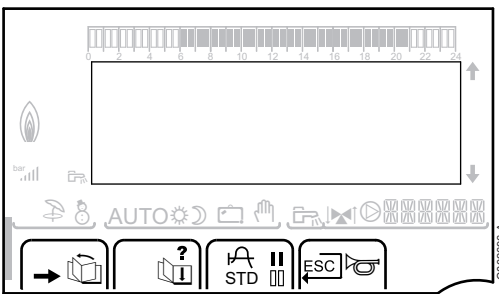


- A Temperature setting key (heating, DHW, swimming pool)
- B Operating mode selection key
- C DHW override key
- D Key to access the parameters reserved for the installer

- 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 selected menu or confirm a value modification

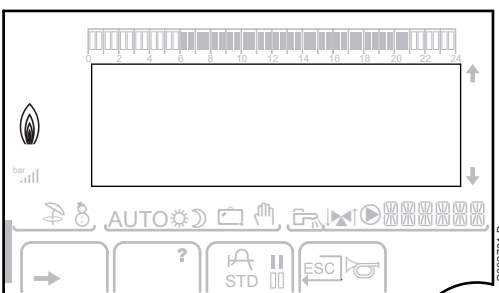
3.3.2. Description of the display

■ Key functions



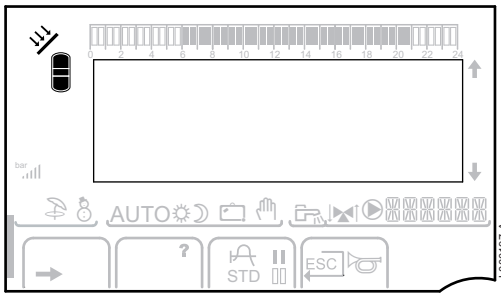
- Access to the various menus
- Used to scroll through the menus
- Used to scroll through the parameters
- ? The symbol is displayed when help is available
- Used to display the curve of the parameter selected
- STD** Reset of the time programmes
- Selection of comfort mode or selection of the days to 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
- Manual reset

■ Flame output level



- The whole symbol flashes: The burner starts up but the flame is not yet present
- Part of the symbol flashes: Output is increasing
- Steady symbol: The required output has been reached
- Part of the symbol flashes: Output is dropping

■ 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

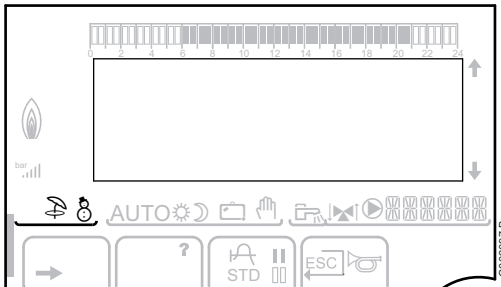


The entire tank is reheated to the solar tank set point



The tank is not loaded - Presence of the solar control system

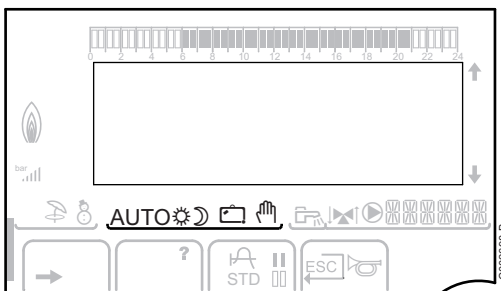
■ Operating modes



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



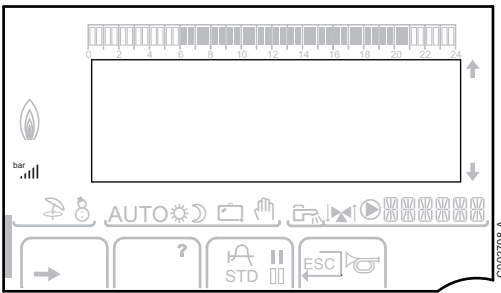
Holiday mode: The symbol is displayed when a HOLIDAY override (antifreeze) is activated

- ▶ Flashing symbol: Holiday mode programmed
- ▶ Steady symbol: Holiday mode active



Manual mode

■ System pressure



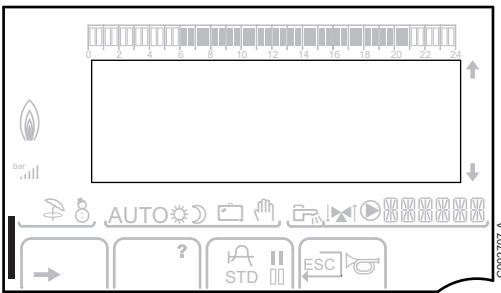
bar Pressure indicator: The symbol is displayed when a water pressure sensor is connected.

- ▶ Flashing symbol: The water pressure is insufficient.
- ▶ Steady symbol: The water pressure is sufficient.

|||| Water pressure level

- ▶ . : 0,9 to 1,1 bar
- ▶ .| : 1,2 to 1,5 bar
- ▶ .|| : 1,6 to 1,9 bar
- ▶ .||| : 2,0 to 2,3 bar
- ▶ .|||| : > 2,4 bar

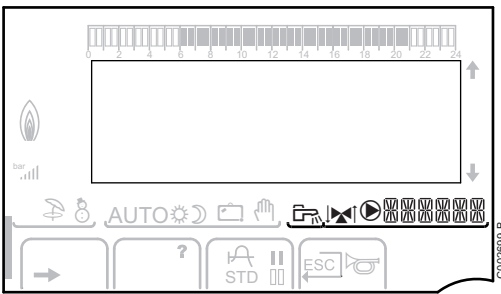
■ Domestic Hot Water override





A bar is displayed when a DHW override is activated:



- ▶ Flashing bar: Temporary override
- ▶ Steady bar: Permanent override

■ Other information




 The symbol is displayed when domestic hot water production is running.

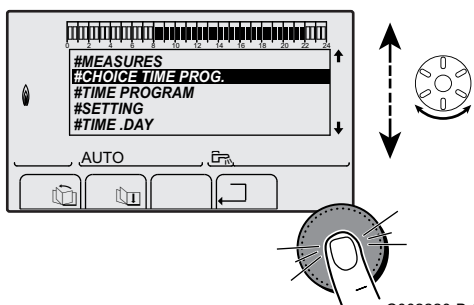
 Valve indicator: The symbol is displayed when a 3-way valve is connected.

- ▶  : 3-way valve opens
- ▶  : 3-way valve closes

 The symbol is displayed when the pump is operating.

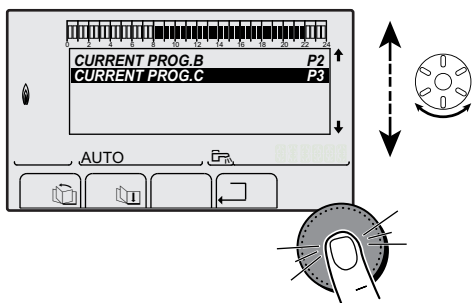
 Name of the circuit for which the parameters are displayed.

3.3.3. Browsing in the menus



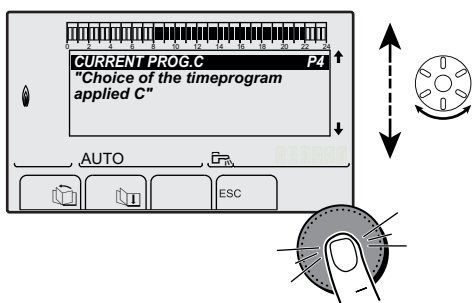
C002220-B-04

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

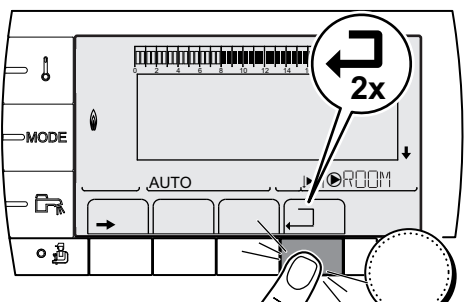
3. To select the desired parameter, turn the rotary button.
4. To modify the parameter, press the rotary button.
To go back to the previous display, press the key .



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**.



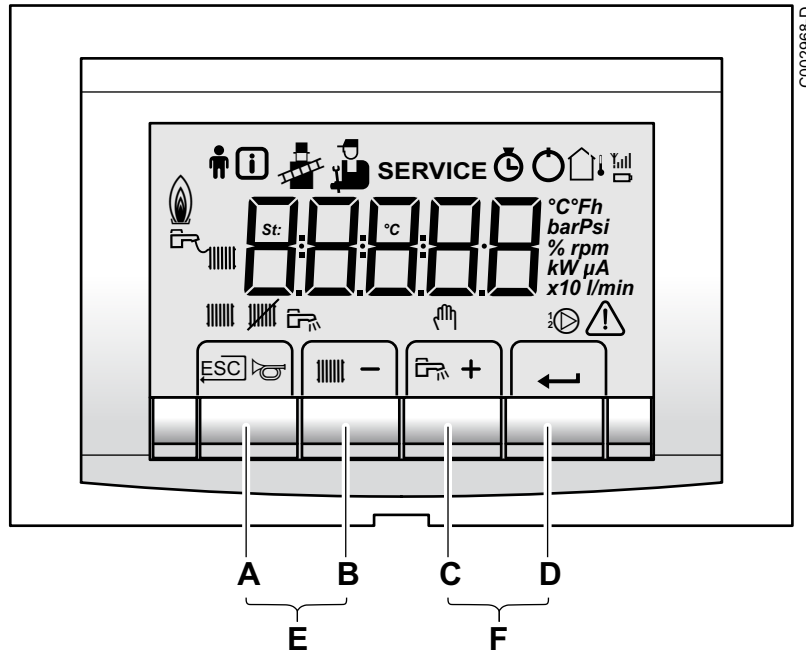
C002224-D-04

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.

3.4 IniControl control panel

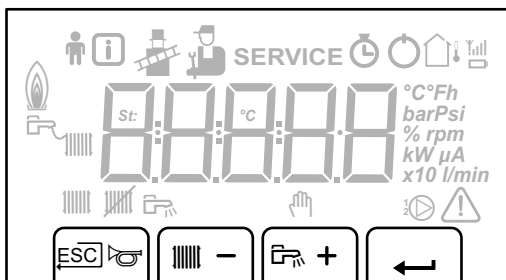
3.4.1. Description of the keys





- A** Return button , Escape or Manual reset
- B** Heating temperature button or **[-]**
- C** DHW temperature button or **[+]**
- D** [Enter] Key
- E** [Chimney-sweeping] keys
Press keys **A** and **B** simultaneously
- F** [Menu] keys
Press keys **C** and **D** simultaneously

3.4.2. Description of the display

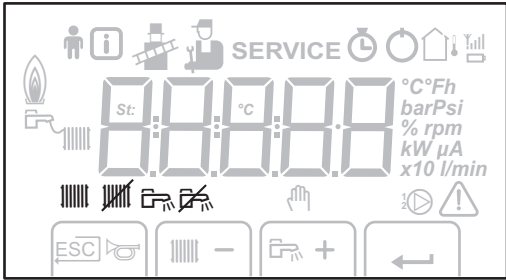
■ Key functions







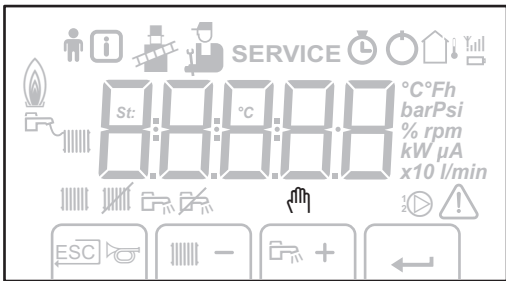
- Back to the previous level without saving the modifications made
- Manual reset
- Central heating function:
Access to the max. heating temperature parameter.
- [-]** To reduce a value

-  DHW function:
Access to sanitary hot water temperature parameter.
- [+]** To increase a value
-  Access the selected menu or confirm a value modification

■ Operating modes

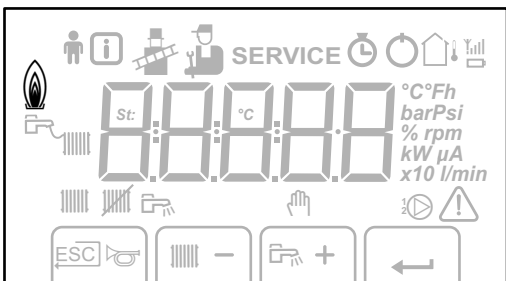






-  State heating pump A
-  Heating programme deactivated:
The heating function is deactivated
-  State DHW pump
-  DHW deactivated



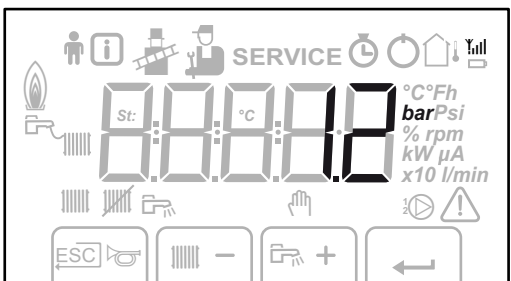
-  Manual mode

■ Flame output level



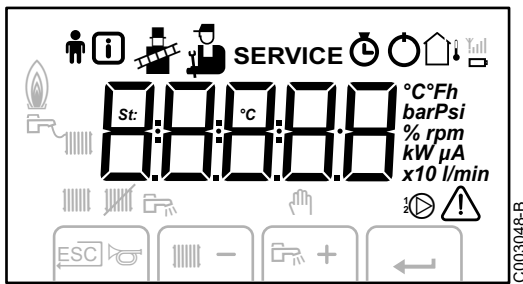
-  Low output level 0 - 25 %
-  Average output level 25 - 50 %
-  High output level 50 - 75 %
-  Output level 75 - 100 %

■ System pressure



- bar** Pressure indicator:
The symbol is displayed next to the installation's pressure value. If no water pressure sensor is connected, -.- appears on the display

■ Other information



User menu:
Parameters at user level can be changed



Information menu:
Reading the various current values



Chimney-sweeping position:
Forced full or part load for CO₂ measurement



Service menu:
Parameters at installer level can be changed

SERVICE

Display with the symbols:
⌘ + **SERVICE** + (Maintenance message)



Hour counter menu:
Readout of the operating hours, number of successful starts and hours on mains supply



On/Off switch:
After 5 lock-outs, the device must be switched off/on again



Outside temperature sensor present



The symbol is displayed when the boiler pump is operating



Defect:
Boiler indicates a fault. This is signalled by a or code and a flashing display

4 Operating the appliance - DIEMATIC iSystem

4.1 Putting the appliance into operation

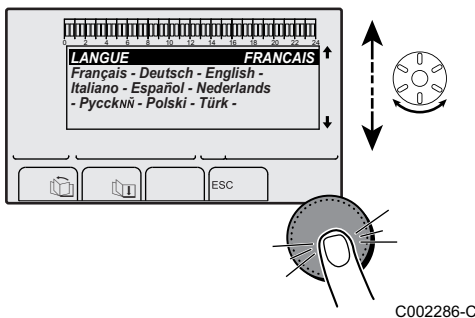
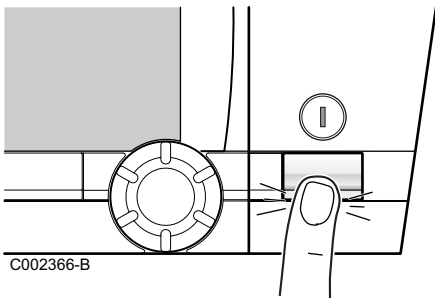
1. Check the water pressure in the installation shown on the control panel display.



If the water pressure is lower than 0,8 bar, more water should be added. If necessary, top up the water level in the heating system (recommended hydraulic pressure between 1,5 and 2,0 bar).

See chapter: "Filling the system", page 36

2. Open the gas valve on the boiler.
3. Turn on the boiler using the on/off switch.



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. The boiler will begin an automatic venting-programme (which lasts approx. 3 minutes) and will do this every time the power supply is isolated. If there is a problem, the error is displayed on the screen.

4.2 Reading out measured values

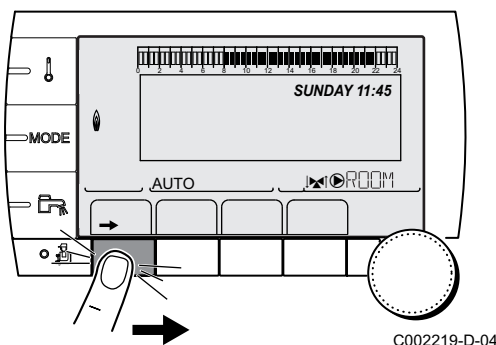
The various values measured by the appliance are displayed in the **#MEASURES** menu.

1. To access user level: Press the → key.
2. Select the menu **#MEASURES**.



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

For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 14.



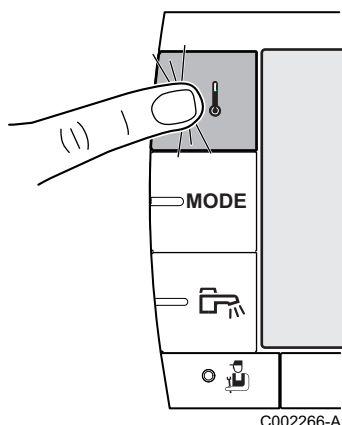
User level - Menu #MEASURES		
Parameter	Description	Unit
OUTSIDE TEMP.	Outside temperature	°C
ROOMTEMP. A ⁽¹⁾	Room temperature of circuit A	°C
ROOMTEMP. B ⁽¹⁾	Room temperature of circuit B	°C
ROOMTEMP. C ⁽¹⁾	Room temperature of circuit C	°C
BOILER TEMP.	Water temperature in the boiler	°C
PRESSURE	Water pressure in the installation	bar
WATER TEMP. ⁽¹⁾	Water temperature in the DHW tank	°C
INST DWH TEMP. ⁽¹⁾	Instant hot water temperature	°C
STOR.TANK.TEMP ⁽¹⁾	Water temperature in the storage tank	°C
DCW TEMPERATURE	Domestic cold water temperature	°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	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
DHW A TEMP. ⁽¹⁾	Water temperature in the second DHW tank connected to circuit A	°C
BACK TEMP	Temperature of the boiler return water	°C
WIND SPEED	Fan rotation speed	rpm
POWER	Instantaneous boiler output (0%: Burner off or running at minimum output)	%
CURRENT (μA)	Ionization current	μA
NB IMPULS.	Number of burner starts (not restartable) The meter is incremented by 8 every 8 start-ups	
RUNTIME	Number of burner operation hours (not restartable) The meter is incremented by 2 every 2 hours	h
IN 0-10V ⁽¹⁾	Voltage at input 0-10 V	V
SEQUENCE	Control system sequence	
CTRL	Software control number	

(1) The parameter is only displayed for the options, circuits or sensors actually connected.

4.3 Changing the settings

4.3.1. Setting the set point temperatures

To set the various heating, DHW and swimming pool temperatures, proceed as follows:



1. Press the ↓ key.
2. To select the desired parameter, turn the rotary button.
3. To modify the parameter, press the rotary button.
To go back to the previous display, press the key □.
4. To modify the parameter, turn the rotary button.
5. To confirm, press the rotary button.



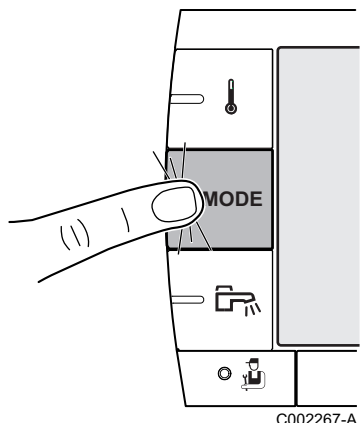
To cancel, press key ESC.

Menu ↓			
Parameter	Adjustment range	Description	Factory setting
DAY TEMP. A	5 to 30 °C	Desired room temperature in comfort periods on circuit A	20 °C
NIGHT TEMP. A	5 to 30 °C	Desired room temperature in reduced periods on circuit A	16 °C
DAY TEMP. B ⁽¹⁾	5 to 30 °C	Desired room temperature in comfort periods on circuit B	20 °C
NIGHT TEMP. B ⁽¹⁾	5 to 30 °C	Desired room temperature in reduced periods on circuit B	16 °C
DAY TEMP. C ⁽¹⁾	5 to 30 °C	Desired room temperature in comfort periods on circuit C	20 °C
NIGHT TEMP. C ⁽¹⁾	5 to 30 °C	Desired room temperature in reduced periods on circuit C	16 °C
WATER TEMP. ⁽¹⁾	10 to 80 °C	Desired domestic hot water temperature in the DHW circuit	55 °C
WATER T.NIGHT ⁽¹⁾ ⁽²⁾	10 to 80 °C	Set tank temperature, night programme	10 °C
TEMP.TANK AUX ⁽¹⁾	10 to 80 °C	Desired domestic hot water temperature in the auxiliary circuit	55 °C
AUX.TANK T.NIGHT ⁽¹⁾⁽²⁾	10 to 80 °C	Set tank temperature, night programme	10 °C
DHW A TEMP. ⁽¹⁾	10 to 80 °C	Desired domestic hot water temperature in circuit A	55 °C
A.TANK T.NIGHT ⁽¹⁾ ⁽²⁾	10 to 80 °C	Set tank temperature, night programme	10 °C
SWIMMING P.T.B ⁽¹⁾	5 to 39 °C	Desired temperature for swimming pool B	20 °C
SWIMMING P.T.C ⁽¹⁾	5 to 39 °C	Desired temperature for swimming pool C	20 °C

(1) The parameter is only displayed for the options, circuits or sensors actually connected.
 (2) The parameter is only displayed if **INSTALLATION** parameter is set to **EXTENDED**

4.3.2. Selecting the operating mode

To select an operating mode, proceed as follows:



1. Press the **MODE** key.
2. To select the desired parameter, turn the rotary button.
3. To modify the parameter, press the rotary button.
To go back to the previous display, press the key \square .
4. To modify the parameter, turn the rotary button.
5. To confirm, press the rotary button.

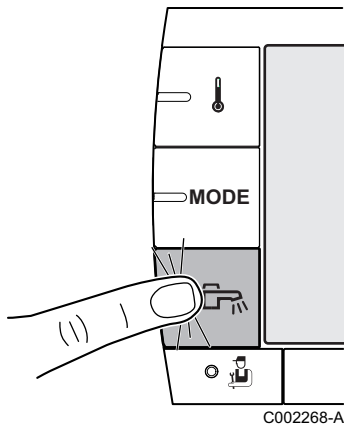
i To cancel, press key **ESC**.

Menu MODE			
Parameter	Adjustment range	Description	Factory setting
AUTOMATIQUE		The comfort ranges are determined by the timer programme.	
DAY	7/7, xx:xx	Comfort mode is forced until the time indicated or all the time (7/7).	Present time + 1 hour
NIGHT	7/7, xx:xx	Reduced mode is forced until the time indicated or all the time (7/7).	Present time + 1 hour
HOLIDAYS	7/7, 1 to 365	The antifreeze mode is active on all boiler circuits. Number of days' holiday: xx ⁽¹⁾ heating OFF: xx:xx ⁽¹⁾ Restarting: xx:xx ⁽¹⁾	Present date + 1 day
SUMMER		The heating is off. Domestic hot water continues to be produced.	
MANUEL		The generator operates according to the set point setting. All of the pumps operate. Option of setting the set point by simply turning the rotary button.	
FORCE AUTO ⁽²⁾	YES / NO	An operating mode override is activated on the remote control (option). To force all circuits to run on AUTOMATIQUE mode, select YES .	

(1) The start and end days and the number of days are calculated in relation to each other.
 (2) The parameter is only displayed if a room sensor is connected.

4.3.3. Forcing domestic hot water production

To force domestic hot water production, proceed as follows:

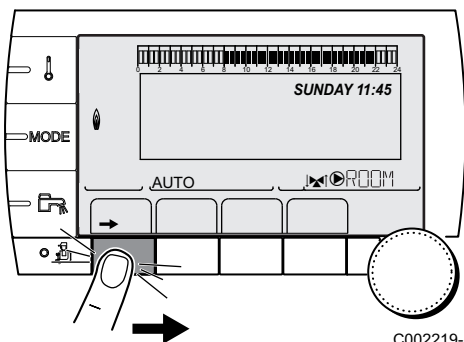


1. Press the **ESC** key.
2. To select the desired parameter, turn the rotary button.
3. To modify the parameter, press the rotary button.
To go back to the previous display, press the key **←**.
4. To modify the parameter, turn the rotary button.
5. To confirm, press the rotary button.

i To cancel, press key **ESC**.

Menu ESC		
Parameter	Description	Factory setting
AUTOMATIQUE	The domestic hot water comfort ranges are determined by the timer programme.	
COMFORT	Domestic hot water comfort mode is forced until the time indicated or all the time (7/7).	Present time + 1 hour

4.3.4. Setting the contrast and lighting on the display



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

i

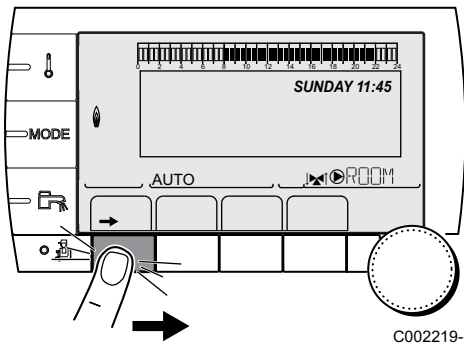
- ▶ Turn the rotary button to scroll through the menus or modify a value.
- ▶ Press the rotary button to access the selected menu or confirm a value modification.

👉 For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 14.

3. Set the following parameters:

User level - Menu #SETTING				
Parameter	Adjustment range	Description	Factory setting	Customer setting
CONTRAST DISP.		Adjusting the display contrast.		
BACK LIGHT	COMFORT	The screen is illuminated continuously in daytime periods.	ECO	
	ECO	The screen is illuminated for 2 minutes whenever pressed.		

4.3.5. Setting the time and date



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1. To access user level: Press the → key.
2. Select the menu **#TIME .DAY**.



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



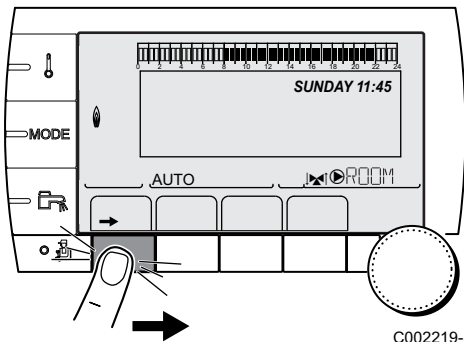
For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 14.

3. Set the following parameters:

User level - Menu #TIME .DAYHEURE / JOUR (1)				
Parameter	Adjustment range	Description	Factory setting	Customer setting
HOURS	0 to 23	Hours setting		
MINUTE	0 to 59	Minutes setting		
DAY	Monday to Sunday	Setting the day of the week		
DATE	1 to 31	Day setting		
MONTH	January to December	Month setting		
YEAR	2008 to 2099	Year setting		
SUM. TIME:	AUTO	automatic switch to summer time on the last Sunday in March and back to winter time on the last Sunday in October.	AUTO	
	MANU	for countries where the time change is done on other dates or is not in use.		

(1) According to the configuration

4.3.6. Selecting a timer programme



C002219-D-04

1. To access user level: Press the → key.
2. Select the menu **#CHOICE TIME PROG..**



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

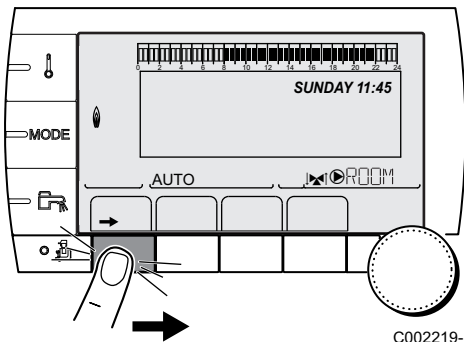


For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 14.

3. To select the desired parameter.
4. Assign the desired timer programme (P1 to P4) to the circuit with the rotary button.

User level - Menu #CHOICE TIME PROG.		
Parameter	Adjustment range	Description
CURRENT PROG.A	P1 / P2 / P3 / P4	Comfort programme activated (Circuit A)
CURRENT PROG.B	P1 / P2 / P3 / P4	Comfort programme activated (Circuit B)
CURRENT PROG.C	P1 / P2 / P3 / P4	Comfort programme activated (Circuit C)

4.3.7. Customising a timer programme



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- To access user level: Press the → key.
- Select the menu #TIME PROGRAM.



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

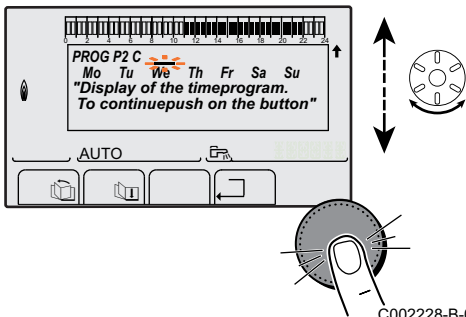


For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 14.

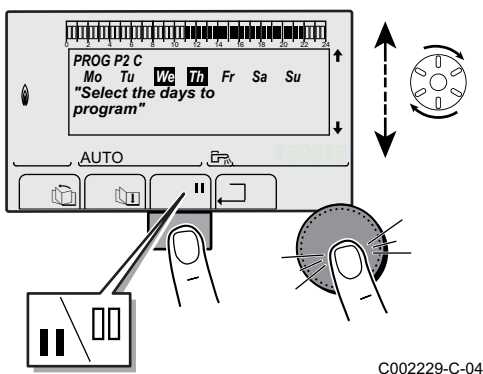
- To select the desired parameter.

User level - Menu #TIME PROGRAM		
Parameter	Time schedule	Description
TIME PROG.A	PROG P2 A PROG P3 A PROG P4 A	Timer programme for circuit A
TIME PROG.B	PROG P2 B PROG P3 B PROG P4 B	Timer programme for circuit B
TIME PROG.C	PROG P2 C PROG P3 C PROG P4 C	Timer programme for circuit C
TIME PROG.DHW		DHW circuit timer programme
TIME PROG.AUX		Auxiliary circuit timer programme

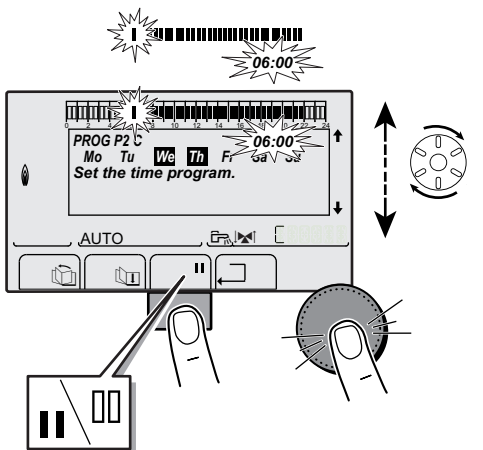
- To select a timer programme to be modified.
- To select to days for which the timer programme is to be modified:**
Turn the rotary button to the left until you reach the day desired. To confirm, press the rotary button.



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C002229-C-04



C002230-E-04

6. **||** : Day selection

Press key **||** / **||** until the symbol **||** is displayed.
Turn the rotary button to the right to select the day(s) desired.

|| : Cancelling the day selection

Press key **||** / **||** until the symbol **||** is displayed.
Turn the rotary button to the right to cancel selection of the relevant day(s).

7. When the days desired for the programme have been selected, press the rotary button to confirm.

8. **To define the timer ranges for the comfort mode and reduced mode:**

Turn the rotary button to the left until **0:00** is displayed. The first segment of the graphic bar for the timer programme flashes.

9. **||** : Comfort mode selection

Press key **||** / **||** until the symbol **||** is displayed.
To select a comfort time range, turn the rotary button to the right.

|| : Reduced mode selection

Press key **||** / **||** until the symbol **||** is displayed.
To select a reduced time range, turn the rotary button to the right.

10. When the times for the comfort mode have been selected, press the rotary button to confirm.

User level - Menu #TIME PROGRAM					
	Day	Comfort periods / Filling enabled:			
		P1 _____	P2 _____	P3 _____	P4 _____
TIME PROG.A	Monday	6:00 to 22:00			
	Tuesday	6:00 to 22:00			
	Wednesday	6:00 to 22:00			
	Thursday	6:00 to 22:00			
	Friday	6:00 to 22:00			
	Saturday	6:00 to 22:00			
	Sunday	6:00 to 22:00			
TIME PROG.B	Monday	6:00 to 22:00			
	Tuesday	6:00 to 22:00			
	Wednesday	6:00 to 22:00			
	Thursday	6:00 to 22:00			
	Friday	6:00 to 22:00			
	Saturday	6:00 to 22:00			
	Sunday	6:00 to 22:00			
TIME PROG.C	Monday	6:00 to 22:00			
	Tuesday	6:00 to 22:00			
	Wednesday	6:00 to 22:00			
	Thursday	6:00 to 22:00			
	Friday	6:00 to 22:00			
	Saturday	6:00 to 22:00			
	Sunday	6:00 to 22:00			

User level - Menu #TIME PROGRAM					
	Day	Comfort periods / Filling enabled:			
		P1 _____	P2 _____	P3 _____	P4 _____
TIME PROG.DHW	Monday				
	Tuesday				
	Wednesday				
	Thursday				
	Friday				
	Saturday				
	Sunday				
TIME PROG.AUX	Monday				
	Tuesday				
	Wednesday				
	Thursday				
	Friday				
	Saturday				
	Sunday				

4.3.8. Setting an annual clock

The annual clock is used to programme up to 10 heating stop periods over one year. The circuits selected for this stop are in Antifreeze mode during the period chosen.

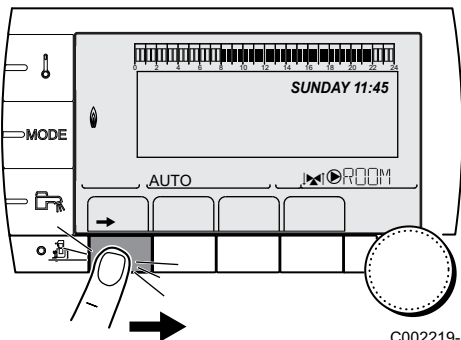
1. To access user level: Press the → key.
2. Select the menu #ANNUAL PROG.



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



For a detailed explanation of menu browsing, refer to the chapter: "Browsing in the menus", page 14.




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3. To select the desired parameter.

OFF	No stop
A	circuit A
B	circuit B
A+B	circuit A, B
C	circuit C
A+C	circuit A, C
B+C	circuit B, C
A+B+C	circuit A, B, C
SU	DHW circuit
A+E	circuit A and DHW
B+E	circuit B and DHW
A+B+W	circuit A, B and DHW
C+E	circuit C and DHW

A+C+W	circuit A, C and DHW
B+C+W	circuit B, C and DHW
ALL	circuit A, B, C and DHW

- Set the start date and the end date of the shutdown selected.
- To deactivate a shutdown, select the shutdown and set to **OFF**.
- To select another shutdown, press the  button.

Annual programme (Factory setting)			
Stop no.	Circuit concerned	Start date	End date
1	OFF	01-01	01-01
2	OFF	01-01	01-01
3	OFF	01-01	01-01
4	OFF	01-01	01-01
5	OFF	01-01	01-01
6	OFF	01-01	01-01
7	OFF	01-01	01-01
8	OFF	01-01	01-01
9	OFF	01-01	01-01
10	OFF	01-01	01-01

For example: Customised programming			
Stop no.	Circuit concerned	Start date	End date
1	A+C	01-11	10-11
2	A+C	20-12	02-01

If setting **STOP: OFF**, the stop is deactivated and the start and end dates are not displayed.

User level - Menu #ANNUAL PROG				
		Description	Factory setting	Adjustment range
STOP N 1:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 01	Setting start date of the stop	01	1-31
	BEG.MONTH N 01	Setting start month of the stop	01	1-12
	END DATE N 01	Setting end date of the stop	01	1-31
	END MONTH N 01	Setting end month of the stop	01	1-12
STOP N 2:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 02	Setting start date of the stop	01	1-31
	BEG.MONTH N 02	Setting start month of the stop	01	1-12
	END DATE N 02	Setting end date of the stop	01	1-31
	END MONTH N 02	Setting end month of the stop	01	1-12
STOP N 3:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 03	Setting start date of the stop	01	1-31
	BEG.MONTH N 03	Setting start month of the stop	01	1-12
	END DATE N 03	Setting end date of the stop	01	1-31
	END MONTH N 03	Setting end month of the stop	01	1-12

User level - Menu #ANNUAL PROG				
		Description	Factory setting	Adjustment range
STOP N 4:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 04	Setting start date of the stop	01	1-31
	BEG.MONTH N 04	Setting start month of the stop	01	1-12
	END DATE N 04	Setting end date of the stop	01	1-31
	END MONTH N 04	Setting end month of the stop	01	1-12
STOP N 5:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 05	Setting start date of the stop	01	1-31
	BEG.MONTH N 05	Setting start month of the stop	01	1-12
	END DATE N 05	Setting end date of the stop	01	1-31
	END MONTH N 05	Setting end month of the stop	01	1-12
STOP N 6:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 06	Setting start date of the stop	01	1-31
	BEG.MONTH N 06	Setting start month of the stop	01	1-12
	END DATE N 06	Setting end date of the stop	01	1-31
	END MONTH N 06	Setting end month of the stop	01	1-12
STOP N 7:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 07	Setting start date of the stop	01	1-31
	BEG.MONTH N 07	Setting start month of the stop	01	1-12
	END DATE N 07	Setting end date of the stop	01	1-31
	END MONTH N 07	Setting end month of the stop	01	1-12
STOP N 8:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 08	Setting start date of the stop	01	1-31
	BEG.MONTH N 08	Setting start month of the stop	01	1-12
	END DATE N 08	Setting end date of the stop	01	1-31
	END MONTH N 08	Setting end month of the stop	01	1-12
STOP N 9:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 09	Setting start date of the stop	01	1-31
	BEG.MONTH N 09	Setting start month of the stop	01	1-12
	END DATE N 09	Setting end date of the stop	01	1-31
	END MONTH N 09	Setting end month of the stop	01	1-12
STOP N 10:		Selection of the circuit stopped	OFF	OFF, A, B, A+B, C, A+C, B+C, A+B+C, SU, A+E, B+E, A+B+W, C+E, A+C+W, B+C+W, ALL
	BEG.DATE N 10	Setting start date of the stop	01	1-31
	BEG.MONTH N 10	Setting start month of the stop	01	1-12
	END DATE N 10	Setting end date of the stop	01	1-31
	END MONTH N 10	Setting end month of the stop	01	1-12

4.4 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).

4.5 Frost protection




CAUTION

- ▶ The antifreeze protection does not function if the appliance is switched off.
- ▶ The integrated protection system only protects the boiler, not the installation. 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:  See chapter: "Selecting the operating mode", page 21.

5 Operating the appliance - IniControl

5.1 Putting the appliance into operation

1. Check the water pressure in the installation shown on the control panel display.



If the water pressure is lower than 0,8 bar, more water should be added. If necessary, top up the water level in the heating system (recommended hydraulic pressure between 1,5 and 2,0 bar).



See chapter: "Filling the system", page 36

2. Open the gas valve on the boiler.
3. Switch on the boiler.
4. The start-up cycle begins and cannot be interrupted. During the start-up cycle, the display shows the following information:

$\boxed{F}\boxed{}:\boxed{X}\boxed{X}$: Software version

$\boxed{P}\boxed{}:\boxed{X}\boxed{X}$: Parameter version

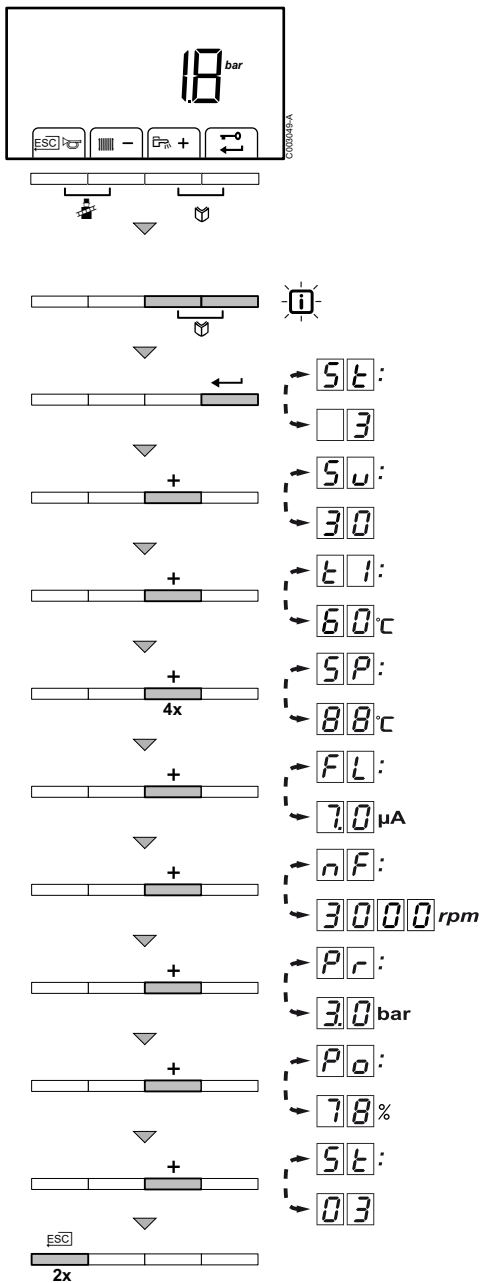
The version numbers are displayed alternately.

5. A vent cycle of a duration of around 3 minutes is carried out automatically.
6. In addition to \boxed{P} , in STAND-BY the display normally shows the water pressure and the symbols ||||| , ⌚ and ⊕ .

5.2 Reading out measured values

The following current values can be read off the information menu \boxed{i} :

- ▶ $\boxed{S}\boxed{t}$ = State.
- ▶ $\boxed{S}\boxed{u}$ = Sub-status.
- ▶ $\boxed{t}\boxed{1}$ = Supply temperature (°C).
- ▶ $\boxed{t}\boxed{2}$ = Return temperature (°C).
- ▶ $\boxed{t}\boxed{3}$ = Calorifier temperature (°C).
- ▶ $\boxed{t}\boxed{4}$ = Outside temperature (°C).
- ▶ $\boxed{t}\boxed{5}$ = Solar boiler temperature (°C).
- ▶ $\boxed{S}\boxed{P}$ = Internal set point (°C).
- ▶ $\boxed{F}\boxed{L}$ = Ionization current (μA).
- ▶ $\boxed{r}\boxed{F}$ = Fan speed in rpm.
- ▶ $\boxed{P}\boxed{r}$ = Water pressure (bar).
- ▶ $\boxed{P}\boxed{o}$ = Supplied relative heat output (%).



The current values can be read as follows:

1. Press the two keys simultaneously. The symbol flashes.
2. Confirm using key . **5E** is displayed, alternating with the current status **3** (for example).
3. Press the **[+]** key. **5U** is displayed, alternating with the current sub-status **30** (for example).
4. Press the **[+]** key. **E1** is displayed, alternating with the current flow temperature **60**°C (for example).
5. Press the **[+]** key successively to scroll down the various parameters. **E2**, **E3**, **E4**, **E5**.
6. Press the **[+]** key. **5P** is displayed, alternating with the internal set point **88**°C (for example).
7. Press the **[+]** key. **FL** is displayed, alternating with the current ionization current **70** µA (for example).
8. Press the **[+]** key. **nF** is displayed, alternating with the current fan rotation speed **3000** rpm (for example).
9. Press the **[+]** key. **Pr** is displayed, alternating with the current water pressure **3.0** bar (for example). If no water pressure sensor is connected, **[-.-]** appears on the display.
10. Press the **[+]** key. **Po** is displayed, alternating with the current modulation percentage **78** % (for example).
11. Press the **[+]** key. The readout cycle starts again with **5E**.
12. Press the key 2 times to return to the current operating mode.

5.3 Changing the settings

5.3.1. Parameter descriptions

Parameter	Description	Adjustment range	Factory setting			
			MCA			
			45	65	90	115
P1	Maximum outlet temperature	20 to 90 °C	80	80	80	80
P2	Domestic hot water temperature: T _{SET}	40 to 65 °C	60	60	60	60
P3	Heating / DHW mode	Do not modify	1	1	1	1
P4	ECO mode	Do not modify	2	2	2	2
P5	Anticipation resistance	Do not modify	0	0	0	0

Parameter	Description	Adjustment range	Factory setting			
			MCA			
			45	65	90	115
P 6	Display screen	Do not modify	2	2	2	2
P 7	Post-circulation of the boiler pump connected to the PCU	1 to 98 minutes 99 minutes = continuous	3	3	3	3
P 8	Brightness of display lighting	Do not modify	1	1	1	1

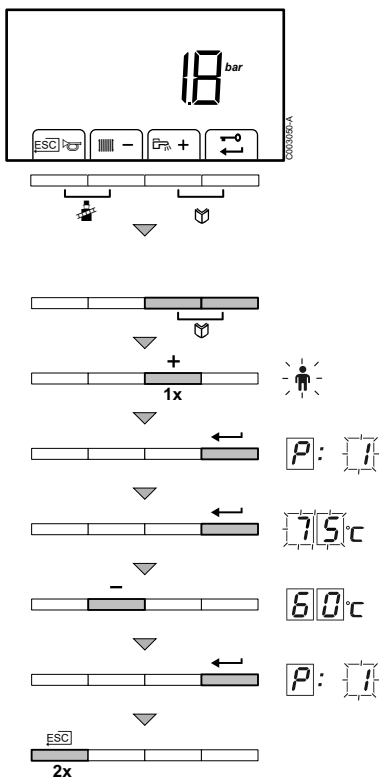
5.3.2. Modification of the user-level parameters

Parameters P 1 to P 8 can be modified by the user in order to meet central heating and DHW comfort needs.



CAUTION

Modification of the factory settings may be detrimental to the functioning of the appliance.

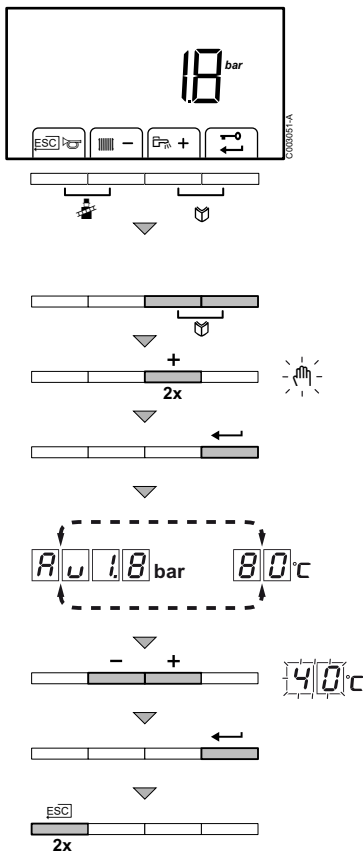


1. Press the two keys simultaneously and then key **[+]** until the symbol flashes on the menu bar.
2. Select the users menu using the key . **P: 1** is displayed with **1** flashing.
3. Press the key a second time. The value 80°C appears and flashes (for example).
4. Change the value by pressing the **[-]** or **[+]** key. In this example using key **[-]** to **60°C**.
5. Confirm the value with the key. **P: 1** is displayed with **1** flashing.
6. Press the key 2 times to return to the current operating mode.



- ▶ The parameters **P 2** to **P 8** are changed in the same way as **P 1**. After step 2, use the **[+]** key to move to the required parameter.
- ▶ The parameters **P 1** (the maximum heating water temperature) and **P 2** (the maximum drinking water temperature) can also be modified using the quick selection menu.

5.3.3. Setting the manual mode



In some cases it may be necessary to switch the boiler to manual operation, For example, if the controller has not yet been connected. The boiler can be switched to automatic or manual operation under the symbol . To do this, proceed as follows:

1. Press the two keys simultaneously and then key **[+]** until the symbol flashes on the menu bar.
2. Press the **←** key:
 - or**
 - The text **AU** with the current water pressure (only if an outside sensor is connected). The flow temperature is determined by the internal heating curve.
 - or**
 - The value of the minimum flow temperature.
3. Press the **[-]** or **[+]** key to increase this value temporarily in manual operation.
4. Confirm the value with the **←** key. The boiler is now set to manual operation.
5. Press the **ESC** key 2 times to return to the current operating mode.

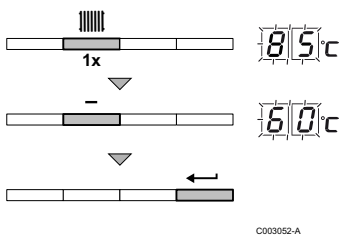
5.3.4. Changing the heating temperature

i If using an outside temperature sensor, the heating flow temperature is adjusted automatically.

In summer, it is possible to reduce the heating flow temperature whilst maintaining comfort. To do this, proceed as follows:

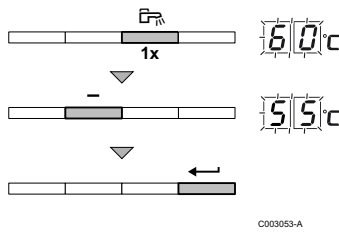
1. Press the key 1 times.
2. The symbol and the current temperature are displayed (the temperature flashes, e.g. **85°C**).
3. Change the value by pressing the **[-]** or **[+]** key. In this example using key **[-]** to **60°C**.
4. To confirm, press the **←** key.






i It also possible to modify this setting using the parameter **P1**.



5.3.5. Modifying the domestic hot water temperature setting

It may be that a lower domestic hot water temperature will be sufficient for your needs. Reduce this temperature and save energy. To do this, proceed as follows:



1. Press the  key 1 times.
2. The symbol  and the current temperature are displayed (the temperature flashes, e.g. °C).
3. Change the value by pressing the [-] or [+] key. In this example using key [-] to °C.
4. To confirm, press the  key.



5.4 Installation shutdown



CAUTION

Do not switch off the boiler.

If the central heating system is not used for a long period, we recommend proceeding as follows:

- ▶ Press key  until **OFF** is displayed.
- ▶ Press key  until **OFF** is displayed.

5.5 Frost protection

When the heating water temperature in the boiler is too low, the integrated boiler protection system starts up. This protection functions as follows:

- ▶ If the water temperature is lower than 7°C, the heating pump starts up.
- ▶ If the water temperature is lower than 4°C, the boiler starts up.
- ▶ If the water temperature is higher than 10°C, the boiler shuts down and the circulation pump continues to run for a short time.
- ▶ If the water temperature in the storage tank is less than 4°C, it is reheated to its set point.

6 Checking and maintenance

6.1 General instructions

The boiler does not require a lot of maintenance. Nevertheless, we recommend having the boiler inspected and serviced at regular intervals.

- ▶ Maintenance and cleaning of the boiler must be carried out at least once a year by a qualified technician.
- ▶ Have the flues swept **at least once a year** or more, depending on the regulations in force in your country.



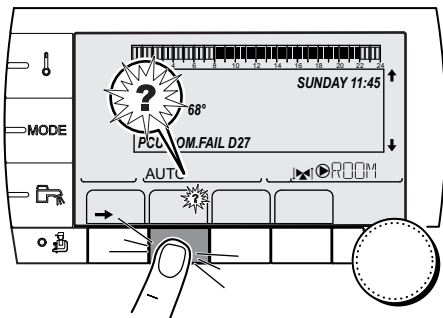
CAUTION

- ▶ Maintenance operations must be done by a qualified engineer.
- ▶ We recommend taking out a maintenance contract.
- ▶ Only original spare parts must be used.
- ▶ Make certain that the flues and chimneys are connected, in good condition and not blocked.

6.1.1. DIEMATIC iSystem control panel

The boiler displays a message whenever maintenance is necessary.

1. When the message, **REVISION**, is displayed, press ? to display the installer's telephone number.
2. Contact the fitter.
3. Have the required checks and services done.



C002302-D-04

6.2 Periodic checks

- ▶ Check the water pressure in the installation.



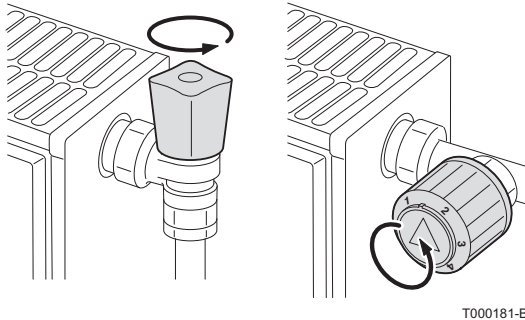
If the water pressure is lower than 0,8 bar, more water should be added. If necessary, top up the water level in the heating system (recommended hydraulic pressure between 1,5 and 2,0 bar).



See chapter: "Filling the system", page 36.



T001507-B



T000181-B

- ▶ Carry out a visual check for the presence of any water leaks.

- ▶ Open and close the radiator valves several times a year (this prevents the valves from seizing up).
- ▶ Clean the outside of the boiler using a damp cloth and a light detergent.

**CAUTION**

Only a qualified professional is authorised to clean the inside of the boiler.

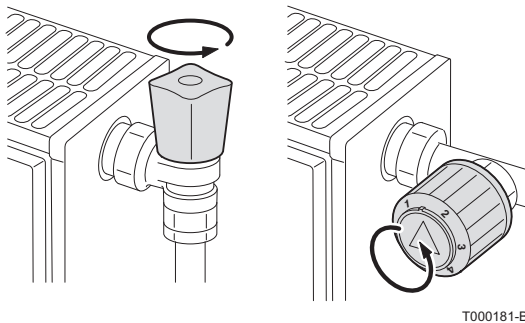
6.3 Filling the system

1. Check the water pressure in the installation shown on the control panel display.

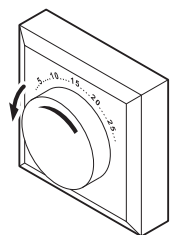


If the water pressure is lower than 0,8 bar, more water should be added. If necessary, top up the water level in the heating system (recommended hydraulic pressure between 1,5 and 2,0 bar).

2. Open the valves on all radiators connected to the heating system.

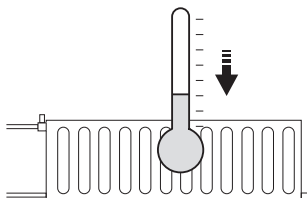


T000181-B



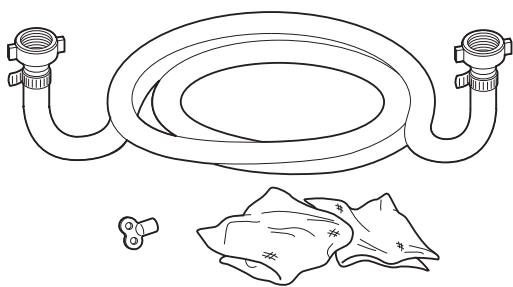
T000182-A

3. Set the room thermostat to as low a temperature as possible.



T000185-A

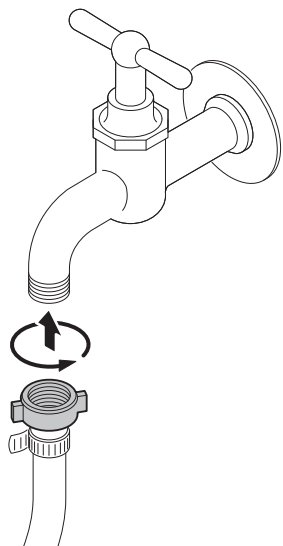
4. Wait until the temperature drops below 40°C and the radiators seem cold before filling the central heating system.



T000845-A

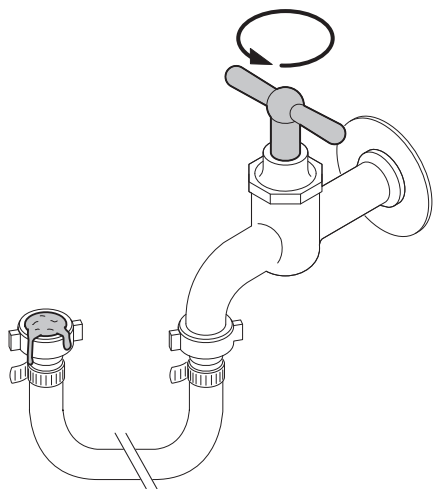
- To fill with water, use a filling tube with two tap connections, a rag and a bleed key.

- Connect the filling tube to a (cold) water tap.



T000846-A

- Eliminate the air from the filling tube. Slowly fill the tube with water. Hold the end of the tube up, above a bucket. Turn off the tap as soon as water runs out of the pipe.

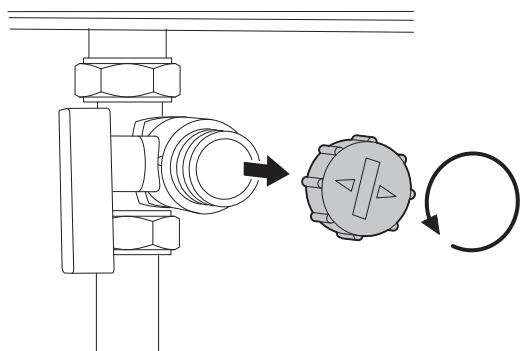


T000847-A

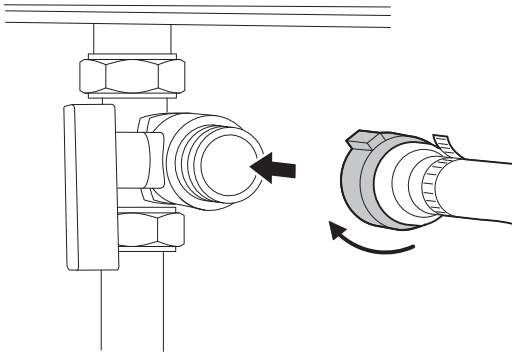
- Unscrew the plug from the filling/draw-off valve.



The filling/draw-off valve is not necessarily located next to the boiler.

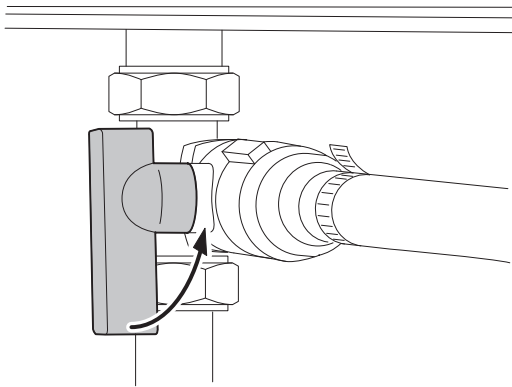


T000848-A



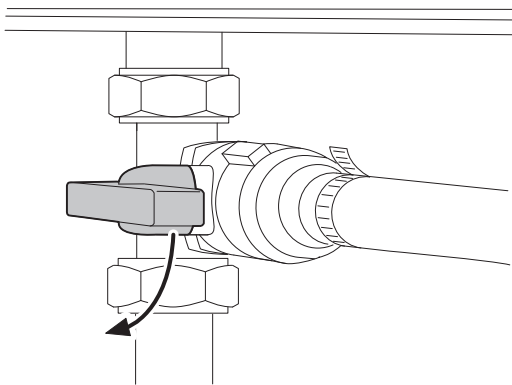
T000849-A

9. Attach the tube to the filling/draw-off valve. Firmly tighten the nut on the filling tube.



T000850-A

10. Open the filling/draw-off valve on the heating system.
 11. Open the running water tap.
 12. Check the water pressure in the installation shown on the control panel display.
 13. Close the water tap when the water pressure reaches 2 bar.



T000853-A

14. Close the filling/draw-off valve on the heating system. Leave the tube on the filling/draw-off valve until the air is purged from the installation.



When water is added, air gets into the heating system. Degas the installation. After the air has been vented, the water pressure can drop below the required level. Check the water pressure in the installation shown on the control panel display. If the water pressure is lower than 0,8 bar, more water should be added.

15. After filling the installation, switch the boiler on.

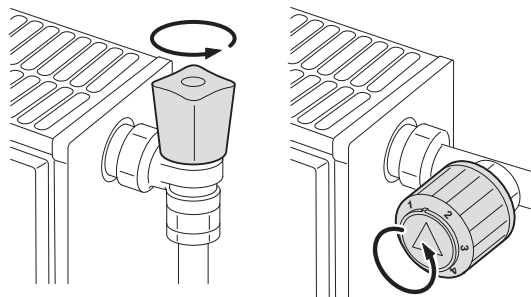


Filling and bleeding the installation 2 times a year should be sufficient to obtain an adequate hydraulic pressure. If it is often necessary to top up the installation with water, contact your fitter.

6.4 Bleeding the heating system

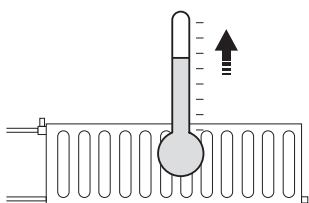
It is essential that you bleed any air in the calorifier, the conduits or the taps to prevent the annoying noises likely to be produced during heating or when tapping water. To do this, proceed as follows:

1. Open the valves on all radiators connected to the heating system.



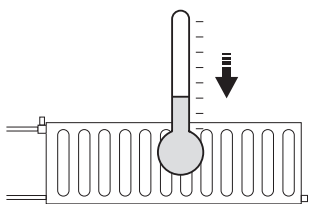
T000181-B

2. Set the heating set point to as high a temperature as possible.
3. Wait until the radiators are hot.



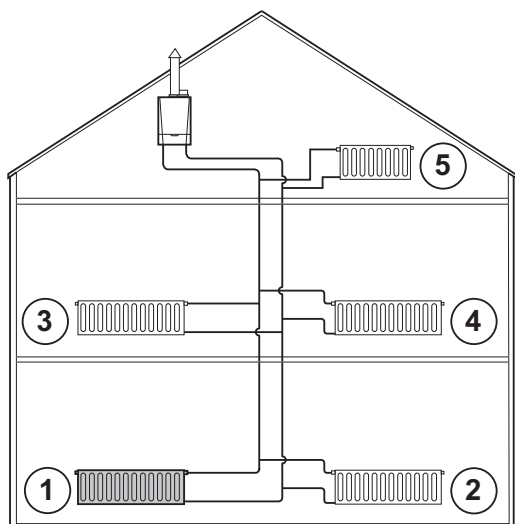
T000184-A

4. Switch the boiler off.
5. Wait around 10 minutes until the radiators are cold.

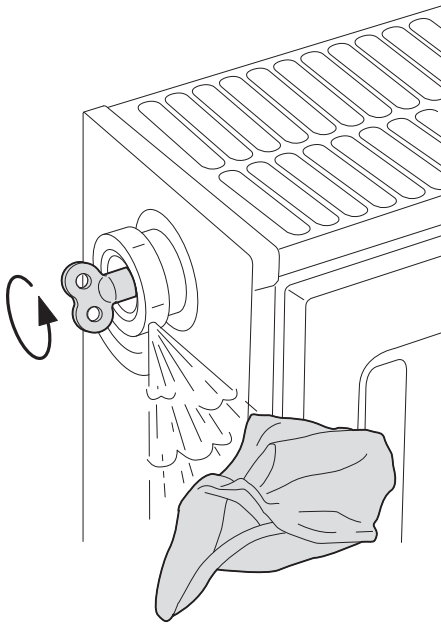


T000185-A

6. Bleed the radiators. Start with the lower floors.

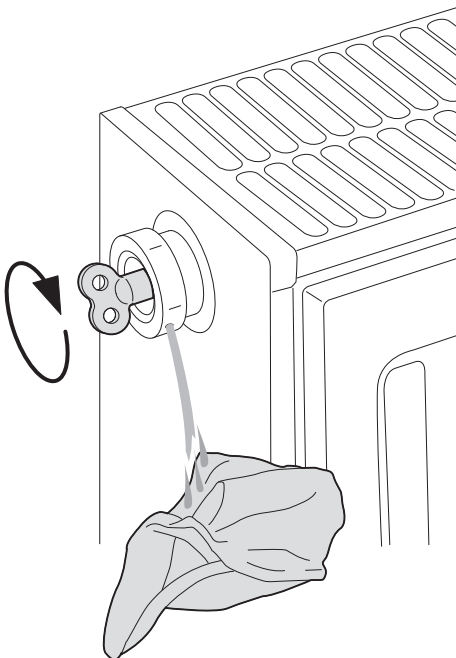


T000854-A



T000217-A

7. Open the bleed connection using the bleed key provided whilst keeping a rag pressed against the connection.



T000218-A

8. Wait until water comes out of the bleed valve and then close the bleed connection.

**CAUTION**

The water may still be hot.

9. Switch on the boiler. A vent cycle of a duration of around 3 minutes is carried out automatically.
10. After venting, check whether the pressure in the installation is still sufficient.



If the water pressure is lower than 0,8 bar, more water should be added. If necessary, top up the water level in the heating system (recommended hydraulic pressure between 1,5 and 2,0 bar).



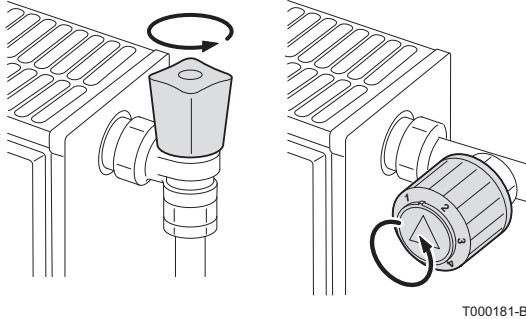
See chapter: "Filling the system", page 36

11. Set the heating set point.

6.5 Draining the installation

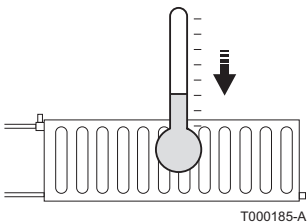
It may become necessary to empty the water from the heating system when the radiators have to be replaced, should there be a major water leak or a risk of frost. To do this, proceed as follows:

1. Open the valves on all radiators connected to the heating system.



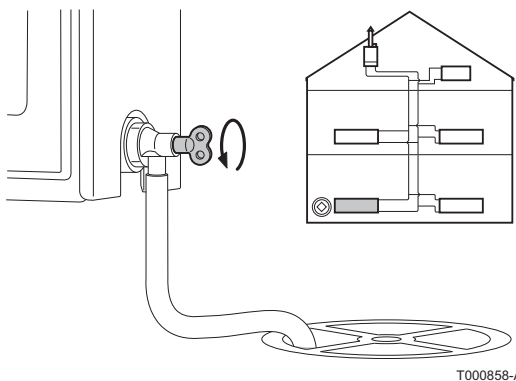
T000181-B

2. Switch off the boiler electrical power supply.
3. Wait around 10 minutes until the radiators are cold.



T000185-A

4. Connect an evacuation hose to the plug located at the lowest level. Place the end of the hose in a discharge sump or in a place where the water discharged from the valve can not do any damage.
5. Open the filling/draw-off valve on the heating system. Vent the heating installation.



T000858-A



WARNING

The water may still be hot.

6. When no more water comes out of the drainage plug, close the drainage valve.

7 Troubleshooting

7.1 Anti-hunting



This display only concerns boilers with the DIEMATIC iSystem control panel.

When the boiler is in Anti-short-cycle operating mode, the symbol ? flashes.

1. Press the "?" key.
The message **Operation assured when the restart temperature will be reached** is displayed.



This message is not an error message but an item of information.

7.2 Messages (Code type Bxx or Mxx)

In the case of failure, the control panel displays a 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. Switch the boiler off and switch back on.
The boiler starts up again automatically when the reason for the blocking has been removed.
3. If the code is displayed again, correct the problem by following the instructions in the table below:



Depending on the control panel, the message display is different:

- ▶ DIEMATIC iSystem control panel: The code and the message are displayed.
- ▶ IniControl control panel: Only the code is displayed.

Code	Messages	Description	Checking / solution
B00	BL.CRC.PSU	The PSU PCB is incorrectly configured	Parameter error on the PSU PCB ▶ Contact the professional who takes care of maintenance of the appliance
B01	BL.MAX BOILER	Maximum flow temperature exceeded	The water flow in the installation is insufficient ▶ Check the circulation (direction, pump, valves)
B02	BL.HEATING SPEED	The increase in flow temperature has exceeded its maximum limit	The water flow in the installation is insufficient ▶ Check the circulation (direction, pump, valves) ▶ Check the water pressure
			Sensor error ▶ Contact the professional who takes care of maintenance of the appliance
B07	BL.DT OUTL RET.	Maximum difference between the flow and return temperature exceeded	The water flow in the installation is insufficient ▶ Check the circulation (direction, pump, valves) ▶ Check the water pressure
			Sensor error ▶ Contact the professional who takes care of maintenance of the appliance
B08	BL.RL OPEN	The RL inlet on the PCU PCB terminal block is open	Parameter error ▶ Contact the professional who takes care of maintenance of the appliance
			Bad connection ▶ Contact the professional who takes care of maintenance of the appliance
B09	BL.INV. L/N	▶ Contact the professional who takes care of maintenance of the appliance	
B10 B11	BL.BL INPUT OPEN	The BL inlet on the PCU PCB terminal block is open	The contact connected to the BL inlet is open ▶ Contact the professional who takes care of maintenance of the appliance
			Parameter error ▶ Contact the professional who takes care of maintenance of the appliance
			Bad connection ▶ Contact the professional who takes care of maintenance of the appliance
B13	BL.PCU COM BL.COM PCU-D4	Communication error with the SCU PCB	Bad connection ▶ Contact the professional who takes care of maintenance of the appliance
			SCU PCB not installed in the boiler ▶ Contact the professional who takes care of maintenance of the appliance
B14	BL.WATER MIS.	The water pressure is lower than 0,8 bar	Not enough water in the circuit ▶ Top up the installation with water
B15	BL.GAS PRESS	Gas pressure too low	Incorrect setting of the gas pressure switch on the SCU PCB ▶ Check that the gas valve is fully opened ▶ Contact the professional who takes care of maintenance of the appliance
B16	BL.BAD SU	The SU PCB is not recognised	Wrong SU PCB for this boiler ▶ Contact the professional who takes care of maintenance of the appliance
B17	BL.PCU ERROR	The parameters saved on the PCU PCB are impaired	Parameter error on the PCU PCB ▶ Contact the professional who takes care of maintenance of the appliance

Code	Messages	Description	Checking / solution
B18	BL.BAD PSU	The PSU PCB is not recognised	Wrong PSU PCB for this boiler <ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance
B19	BL.NO CONFIG	The boiler has not been configured	The PSU PCB has been changed <ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance
B21	BL.COM SU	Communication error between the PCU and SU PCBs	Bad connection <ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance
B22	BL.FLAME LOS	No flame during operation	No ionization current <ul style="list-style-type: none"> ▶ Check that the gas valve is fully opened ▶ Contact the professional who takes care of maintenance of the appliance
B25	BL.SU ERROR	Internal error on the SU PCB	<ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance
B26	BL.DHW. S.	The DHW tank sensor is disconnected or short circuited	<ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance
B27	BL.DHW INST	The sensor on the plate exchanger outlet is disconnected or short circuited	<ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance
M04	REVISION	A service is required	The date programmed for the service has been reached <ul style="list-style-type: none"> ▶ If the symbol ? flashes, press key ?. The installer's contact details are displayed. ▶ Contact the professional who takes care of maintenance of the appliance
M05	REVISION A	An A, B or C service is required	The date programmed for the service has been reached <ul style="list-style-type: none"> ▶ If the symbol ? flashes, press key ?. The installer's contact details are displayed. ▶ Contact the professional who takes care of maintenance of the appliance
M06	REVISION B		
M07	REVISION C		
M20	DISGAS	A boiler vent cycle is underway	Switching the boiler on <ul style="list-style-type: none"> ▶ Wait 3 minutes
	FL.DRY.B XX DAYS	Floor drying is active XX DAYS = Number of days' floor drying remaining.	Floor drying is underway. Heating on the circuits not concerned is shut down. <ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance
	FL.DRY.C XX DAYS		
	FL.DRY.B+C XX DAYS		
M23	CHANGE OUTSI.S	The outside temperature sensor is defective.	Change the outside radio temperature sensor.
	STOP N XX	The shutdown is active XX = Number of the active shutdown	A shutdown is underway. The circuits selected for this stop are in Antifreeze mode during the period chosen.

7.3 Faults (Code type Lxx or Dxx)

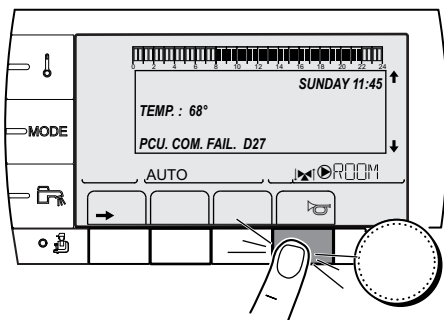
In the event of operational failure, the control panel flashes and displays an error message and a corresponding code.



Depending on the control panel, the message display is different:

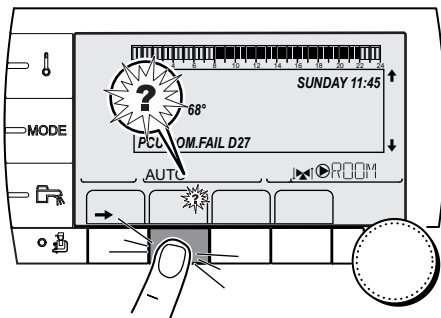
- ▶ DIEMATIC iSystem control panel: The code and the message are displayed.
- ▶ IniControl control panel: Only the code is displayed.

7.3.1. DIEMATIC iSystem control panel



C002604-B-04

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. If the code is displayed again, switch off the boiler and then switch it back on.



C002302-D-04

3. Press the ? key. Follow the instructions displayed to solve the problem.
4. Consult the meaning of the codes in the table below:

7.3.2. IniControl control panel

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. If the code is displayed again, switch off the boiler and then switch it back on.



7.3.3. List of faults

Code	Faults	Cause of the fault	Description	Checking / solution
L00	PSU FAIL	PCU	PSU PCB not connected	Bad connection PSU PCB faulty ▶ Contact the professional who takes care of maintenance of the appliance
L01	PSU PARAM FAIL	PCU	The safety parameters are incorrect	Bad connection PSU PCB faulty ▶ Contact the professional who takes care of maintenance of the appliance
L02	DEF.OUTLET S.	PCU	The boiler flow sensor has short-circuited	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
L03	DEF.OUTLET S.	PCU	The boiler flow sensor is on an open circuit	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
L04	DEF.OUTLET S.	PCU	Boiler temp too low	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance No water circulation ▶ Vent the air in the heating system ▶ Check the circulation (direction, pump, valves) ▶ Check the water pressure
L05	STB OUTLET	PCU	Boiler temperature too high	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance No water circulation ▶ Vent the air in the heating system ▶ Check the circulation (direction, pump, valves) ▶ Check the water pressure
L06	BACK S.FAILURE	PCU	The return temperature sensor has short-circuited	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
L07	BACK S.FAILURE	PCU	The return temperature sensor is on an open circuit	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
L08	BACK S.FAILURE	PCU	Return temperature too low	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance No water circulation ▶ Vent the air in the heating system ▶ Check the circulation (direction, pump, valves) ▶ Check the water pressure

Code	Faults	Cause of the fault	Description	Checking / solution
L09	STB BACK	PCU	Return temperature too high	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
				No water circulation ▶ Vent the air in the heating system ▶ Check the circulation (direction, pump, valves) ▶ Check the water pressure
L10	DEP-RET>MAX	PCU	Difference between the flow and return temperatures insufficient	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
				No water circulation ▶ Vent the air in the heating system ▶ Check the circulation (direction, pump, valves) ▶ Check the water pressure
L11	RET-DEP>MAX	PCU	Difference between the flow and return temperatures too great	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
				No water circulation ▶ Vent the air in the heating system ▶ Check the circulation (direction, pump, valves) ▶ Check the water pressure
L12	STB OPEN	PCU	Maximum boiler temperature exceeded (STB thermostat maximum)	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
				No water circulation ▶ Vent the air in the heating system ▶ Check the circulation (direction, pump, valves) ▶ Check the water pressure
L14	BURNER FAILURE	PCU	5 burner start-up failures	No ignition ▶ Contact the professional who takes care of maintenance of the appliance
				Ignition arc, but no flame formation ▶ Check that the gas valve is fully opened ▶ Contact the professional who takes care of maintenance of the appliance
				Presence of the flame but insufficient ionization (<3 µA) ▶ Check that the gas valve is fully opened ▶ Contact the professional who takes care of maintenance of the appliance

Code	Faults	Cause of the fault	Description	Checking / solution
L16	PARASIT FLAME	PCU	Detection of a parasite flame	Ionization current present when there should not be a flame Ignition transformer defective Gas valve defective The burner remains very hot: CO ₂ too high ▶ Contact the professional who takes care of maintenance of the appliance
L17	VALVE FAIL	PCU	Problem on the gas valve	Bad connection SU PCB faulty ▶ Contact the professional who takes care of maintenance of the appliance
L34	FAN FAILURE	PCU	The fan is not running at the right speed	Bad connection Fan defective ▶ Contact the professional who takes care of maintenance of the appliance
L35	BACK>BOIL FAIL	PCU	Flow and return reversed	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance Water circulation direction reversed ▶ Check the circulation (direction, pump, valves)
L36	I-CURRENT FAIL	PCU	The flame went out more than 5 times in 24 hours while the burner was operating	No ionization current ▶ Check that the gas valve is fully opened ▶ Contact the professional who takes care of maintenance of the appliance
L37	SU COM.FAIL	PCU	Communication failure with the SU PCB	Bad connection ▶ Contact the professional who takes care of maintenance of the appliance
L38	PCU COM.FAIL	PCU	Communication failure between the PCU and SCU PCBs	Bad connection SCU PCB not connected or faulty ▶ Contact the professional who takes care of maintenance of the appliance
L39	BL OPEN FAIL	PCU	The BL inlet opened for a short time	Bad connection External cause Parameter incorrectly set ▶ Contact the professional who takes care of maintenance of the appliance
L40	TEST.HRU.FAIL	PCU	HRU/URC unit test error	Bad connection External cause Parameter incorrectly set ▶ Contact the professional who takes care of maintenance of the appliance
L250	DEF.WATER MIS.	PCU	The water pressure is too low	Hydraulic circuit incorrectly vented Water leak Measurement error ▶ Top up with more water if necessary ▶ Reset the boiler
L251	MANOMETRE FAIL	PCU	Fault on the water pressure sensor	Wiring problem The manometer is defective Sensor pcb defective ▶ Contact the professional who takes care of maintenance of the appliance

Code	Faults	Cause of the fault	Description	Checking / solution
D03 D04	OUTL S.B FAIL. OUTL S.C FAIL.	SCU	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 Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
D05	OUTSI.S.FAIL.	SCU	Outside temperature sensor fault Remarks: The boiler operates on BOILER MAX temperature. 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 Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
D07	SYST.SENS.FAIL.	SCU	System sensor fault	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
D09	DHW S.FAILURE	SCU	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 Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
D11 D12 D13	ROOM S.A FAIL. ROOM S.B FAIL. ROOM S.C FAIL.	SCU	A room temperature sensor fault B room temperature sensor fault C room temperature sensor fault Note: The circuit concerned operates without any influence from the room sensor.	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
D14	MC COM.FAIL	SCU	Communication failure between the SCU PCB 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	SCU	Storage tank sensor fault Note: The hot water storage tank reheating operation is no longer assured.	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
D16 D16	SWIM.P.B. S.FAIL SWIM.P.C. S.FAIL	SCU	Swimming pool sensor fault circuit B Swimming pool sensor fault circuit C Note: Pool reheating is independent of its temperature.	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
D17	DHW 2 S.FAIL	SCU	Sensor fault tank 2	Bad connection Sensor fault ▶ Contact the professional who takes care of maintenance of the appliance
D27	PCU COM. FAIL	SCU	Communication failure between the SCU and PCU PCBs ▶ Contact the professional who takes care of maintenance of the appliance	

Code	Faults	Cause of the fault	Description	Checking / solution
D32	5 RESET:ON/OFF	SCU	5 resets done in less than an hour	
			<ul style="list-style-type: none"> ▶ Switch the boiler off and switch back on ▶ If the boiler does not start after several resets (5 attempts possible), contact your heating engineer and inform him of the error message displayed 	
D37	TA-S SHORT-CIR	SCU	The Titan Active System® is short-circuited	
			<ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance <p>Remarks: Domestic hot water production has stopped but can nonetheless be restarted using key .</p> <p>The tank is no longer protected. If a tank without Titan Active System® is connected to the boiler, check that the TAS simulation connector (delivered with package AD212) is fitted to the sensor card.</p>	
D38	TA-S DISCONN	SCU	The Titan Active System® is on an open circuit	
			<ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance <p>Remarks: Domestic hot water production has stopped but can nonetheless be restarted using key .</p> <p>The tank is no longer protected. If a tank without Titan Active System® is connected to the boiler, check that the TAS simulation connector (delivered with package AD212) is fitted to the sensor card.</p>	
D99	DEF.BAD PCU	SCU	The SCU software version does not recognise the PCU connected	
			<ul style="list-style-type: none"> ▶ Contact the professional who takes care of maintenance of the appliance 	

8 Technical specifications

8.1 Technical specifications

Boiler type			MCA 45	MCA 65	MCA 90	MCA 115
General						
Flow rate setting	Adjustable		Modulating, Start/Stop, 0 - 10 V			
Nominal output (Pn) Heating System (80/60 °C)	minimum-maximum	kW	8,0 - 40,0	12,0 - 61,0	14,1 - 84,2	16,6 - 107,0
	Factory setting	kW	40,0	61,0	84,2	107,0
Nominal output (Pn) Heating System (50/30 °C)	minimum-maximum	kW	8,9 - 43,0	13,3 - 65,0	15,8 - 89,5	18,4 - 114,0
	Factory setting	kW	43,0	65,0	89,5	114,0
Data on the gases and combustion gases						
Gas consumption G20 (Natural gas H)	minimum-maximum	m ³ /h	0,9 - 4,4	1,3 - 6,6	1,5 - 9,1	1,8 - 11,7
Gas consumption G31 (Propane)	minimum-maximum	m ³ /h	0,3 - 1,7	0,5 - 2,5	0,6 - 3,5	0,6 - 4,7
NOx-Emission per year (EN 483)		mg/kWh	37	32	45	46
Mass flue gas flow rate	minimum-maximum	Kg/h	14 - 69	21 - 104	28 - 138	36 - 178
Flue gas temperature	minimum-maximum	°C	30 - 67	30 - 68	30 - 68	30 - 72
Maximum counter pressure		Pa	150	100	160	220
Characteristics of the heating circuit						
Water content		l	5,5	6,5	7,5	7,5
Water operating pressure	minimum	kPa (bar)	80 (0,8)	80 (0,8)	80 (0,8)	80 (0,8)
Water operating pressure (PMS)	maximum	kPa (bar)	400 (4,0)	400 (4,0)	400 (4,0)	400 (4,0)
Water temperature	maximum	°C	110	110	110	110
Operating temperature	maximum	°C	90	90	90	90
Electrical characteristics						
Power supply voltage		V/Hz	230/50	230/50	230/50	230/50
Power consumption - Full load	maximum	W	68	88	125	199
Power consumption - Part load	maximum	W	18	23	20	45
Power consumption - Standby	maximum	W	5	6	4	7
Electrical protection index		IP	X4D	X4D	X4D	X4D
Other characteristics						
Weight (empty)	Total	kg	53	60	67	68
Acoustic level at 1 metre		dB(A)	45	45	52	51

9 Energy savings

9.1 Energy-saving advice

- ▶ Keep the room in which the boiler is installed well ventilated.
- ▶ Do not block ventilation outlets.
- ▶ Do not cover the radiators. Do not hang curtains in front of the radiators.
- ▶ Install reflective panels behind the radiators to prevent heat losses.
- ▶ Insulate the pipes in rooms that are not heated (cellars and lofts).
- ▶ Close the radiators in rooms not in use.
- ▶ Do not run hot (or cold) water pointlessly.
- ▶ Install a water-saving shower head to save up to 40 % energy.
- ▶ Take showers rather than baths. A bath consumes twice as much water and energy.

9.2 Recommendations

The remote control is available in the following versions:

- ▶ Wire
- ▶ Radio

The setting of the control panel and/or of the remote control has a considerable influence on energy consumption.

A few tips:

- ▶ In the room in which the room thermostat is installed, it's advised not to use thermostatic valve radiators. If a thermostatic valve is used the valve must be fully opened.
- ▶ Completely closing and opening thermostatic valve radiators causes undesirable temperature fluctuations. Open and close thermostatic valves in small steps.
- ▶ Lower the temperature to around 20°C. This reduces heating costs and energy consumption.
- ▶ Lower the temperature when you air the rooms.
- ▶ When setting a time schedule, bear days when you are absent and holidays in mind.

10 Warranty

10.1 General

You have just purchased one of our appliances and we thank you for the trust you have placed in our products.

Please note that your appliance will provide good service for a longer period of time if it is regularly checked and maintained.

Your fitter and our customer support network are at your disposal at all times.

10.2 Warranty terms

The following provisions are not exclusive of the buyer being able benefit from the legal provisions applicable regarding hidden defects in the buyer's country.

Starting from the purchase date shown on the original fitter's invoice, your appliance has a contractual guarantee against any manufacturing defect.

The length of the guarantee is mentioned in the price catalogue. The manufacturer is not liable for any improper use of the appliance or failure to maintain or install the unit correctly (the user shall take care to ensure that the system is installed by a qualified engineer).

In particular, the manufacturer shall not be held responsible for any damage, loss or injury caused by installations which do not comply with the following:

- ▶ applicable local laws and regulations,
- ▶ specific requirements relating to the installation, such as national and/or local regulations,
- ▶ the manufacturer's instructions, in particular those relating to the regular maintenance of the unit,
- ▶ the rules of the profession.

The warranty is limited to the exchange or repair of such parts as have been recognised to be faulty by our technical department and does not cover labour, travel and carriage costs.

The warranty shall not apply to the replacement or repair of parts damaged by normal wear and tear, negligence, repairs by unqualified parties, faulty or insufficient monitoring and maintenance, faulty power supply or the use of unsuitable fuel.

Sub-assemblies such as motors, pumps, electric valves etc. are guaranteed only if they have never been dismantled.

The legislation laid down by european directive 99/44/EEC, transposed by legislative decree No. 24 of 2 February 2002 published in O.J. No. 57 of 8 March 2002, continues to apply.

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All technical and technological information contained in these technical instructions, as well as any drawings and technical descriptions supplied, remain our property and shall not be multiplied without our prior consent in writing.

28/08/12



De Dietrich 

DE DIETRICH THERMIQUE

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