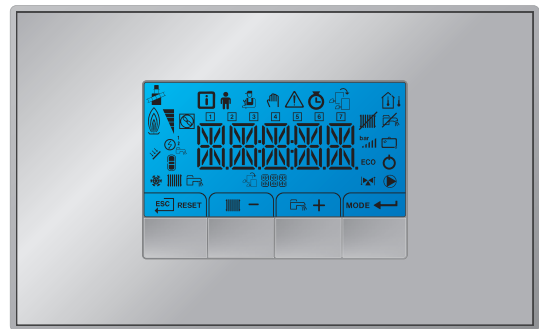


# EVODENS PRO



## Service Manual

Control panel & High-efficiency wall-hung gas boiler

AMC Pro 45 - 65 - 90 - 115

Inicontrol 2

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## 1 Safety

### 1.1 Liabilities

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#### 1.1.1 Manufacturer's liability

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Our products are manufactured in compliance with the requirements of the various Directives applicable. They are therefore delivered with the CE marking and any documents necessary. In the interests of the quality of our products, we strive constantly to improve them. We therefore reserve the right to modify the specifications given in this document.

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

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

#### 1.1.2 Installer's liability

---

The installer is responsible for the installation and initial commissioning of the appliance. The installer must observe the following instructions:

- Read and follow the instructions given in the manuals provided with the appliance.
- Install the appliance in compliance with prevailing legislation and standards.
- Carry out initial commissioning and any checks necessary.
- Explain the installation to the user.
- If maintenance is necessary, warn the user of the obligation to check the appliance and keep it in good working order.
- Give all the instruction manuals to the user.

#### 1.1.3 User's liability

---

To guarantee optimum operation of the system, you must abide by the following instructions:

- Read and follow the instructions given in the manuals provided with the appliance.
- Call on a qualified professional to carry out installation and initial commissioning.
- Get your installer to explain your installation to you.

- Have the required inspections and maintenance carried out by a qualified installer.
- Keep the instruction manuals in good condition close to the appliance.

## 2 About this manual

### 2.1 Additional documentation

---

The following documentation is available in addition to this manual:

- Installation and user manual
- Water quality instructions

### 2.2 Symbols used in the manual

---

This manual contains special instructions, marked with specific symbols. Please pay extra attention when these symbols are used.

**Caution**

Risk of material damage.

**Important**

Please note: important information.

**See**

Reference to other manuals or pages in this manual.

## 3 Description of the product

The AMC Pro boiler is delivered with a combination of the control panel, control unit and extension PCB. The contents of this manual are based on the following software and navigation information:

Tab.1 Software and navigation information

	Name visible in display	Software version
Boiler <b>AMC Pro</b>	CU-GH08	01.07
Control panel <b>Inicontrol 2</b>	HMI	02.01

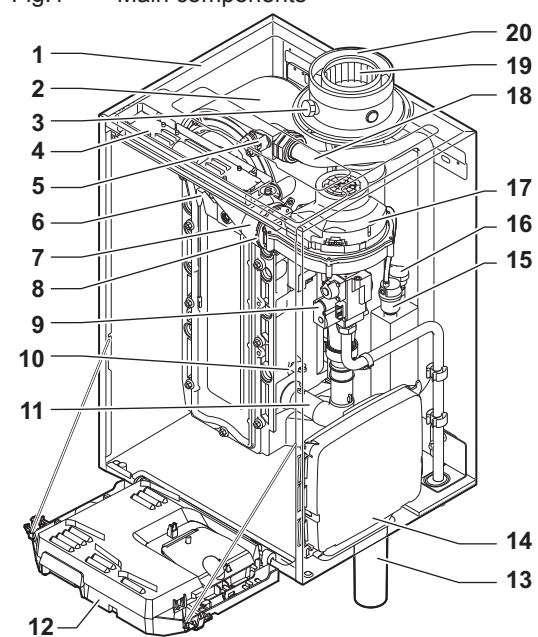
### 3.1 General description

The AMC Pro boiler is a high-efficiency wall-hung gas boiler with the following properties:

- High-efficiency heating.
- Limited emissions of polluting substances.
- Ideal choice for cascade configurations.

### 3.2 Main components

Fig.1 Main components



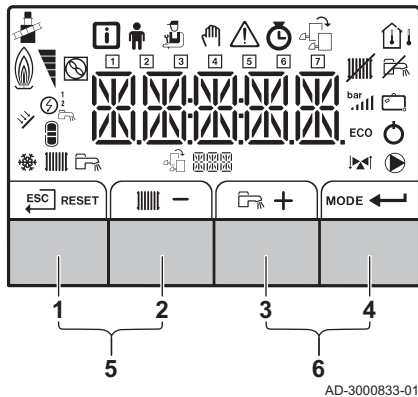
AD-4000070-01

- |                                 |                                                        |
|---------------------------------|--------------------------------------------------------|
| 1 Casing/air box                | 14 Expansion box for the control PCBs<br>(= accessory) |
| 2 Heat exchanger (CH)           | 15 Automatic air vent                                  |
| 3 Interior light                | 16 Hydraulic pressure sensor                           |
| 4 Type plate                    | 17 Fan                                                 |
| 5 Flow sensor                   | 18 Supply line                                         |
| 6 Ionisation/ignition electrode | 19 Flue gas measuring point                            |
| 7 Mixing tube                   | 20 Flue gas discharge pipe                             |
| 8 Non-return valve              | 21 Air supply                                          |
| 9 Combined gas valve unit       | ▶ (II) Heating circuit flow                            |
| 10 Return sensor                | (II) ▶ Heating circuit return                          |
| 11 Air intake silencer          |                                                        |
| 12 Instrument box               |                                                        |
| 13 Siphon                       |                                                        |

## 4 Use of the control panel

### 4.1 What each key means

Fig.2 Control panel



1		Escape	Back to the previous level.
	RESET	Reset	Manual reset.
2		CH flow temperature	Access to set central heating temperature.
	-	Minus	Lowering the value or previous menu item.
3		DHW temperature	Access to set domestic hot water temperature.
	+	Plus	Raising the value or next menu item.
4	MODE	CH/DHW function	Toggles function ON/OFF.
		Enter	Confirms selection or value.
5		Chimney-sweeping mode	Press the 1 and 2 keys simultaneously to enter Chhimney-sweeping mode.
6		Menu	Press the 3 and 4 keys simultaneously to open the menu.

### 4.2 Meaning of the symbols on the display

Tab.2 Possible symbols in the display (depending on available devices or functions)

	Information menu: read out various current values.
	User menu: user-level parameters can be configured.
	Installer menu: installer level parameter can be configured.
	Manual mode menu: manual mode can be configured.
	Error menu: errors can be read out.
	Counter menu: Counter / Timer program / Time display
	Control PCB menu: (optional) control PCBs can be read out.
	Chimney sweep mode is enabled (forced full load or part load for O <sub>2</sub> measurement).
	The outside temperature sensor is connected.
	The room temperature sensor is connected.
	The burner output level (1 to 5 bars, with each bar representing 20% output)
	The heat pump is switched on.
	Day display
	Central heating function is disabled.
	Domestic hot water function is disabled.
	The solar boiler is on and its heat level is displayed.
	System water pressure display.
	The holiday program (including frost protection) is active.
	Cooling mode is active.
	Central heating function is enabled.
	Domestic hot water function is enabled.
	Displaying the selected PCB.
	Three-way valve indicator.



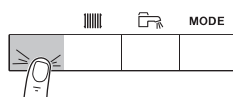
	The circulation pump is running.
<b>ECO</b>	ECO mode is active.
	Switch the appliance off then on again.

### 4.3 Browsing in the menus

#### Important

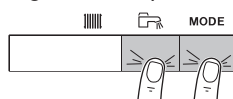
- Depending on the devices or control PCBs connected, the control panel shows selection options in some menus.
- First, select a device, control PCB or zone to view or amend a setting.

Fig.3 Step 1



MW-3000377-02

Fig.4 Step 2



MW-3000299-01

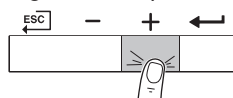
1. Press any key to activate the controller from the stand-by screen.

2. Access the available menu options by pressing the two keys on the right simultaneously.

Tab.3 Possible menu choices

	Information Menu
	User menu
	Installer Menu
	Manual mode menu
	Failure Menu
	Hour Run Meters / Timer Program / Clock menu
	PCB menu <sup>(1)</sup>
(1) The icon is displayed only if an optional control PCB has been installed.	

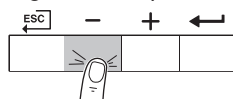
Fig.5 Step 3



MW-3000300-02

3. Press the **→** key to move the cursor to the right.

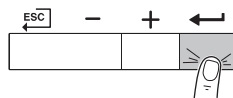
Fig.6 Step 4



MW-3000301-02

4. Press the **←** key to move the cursor to the left.

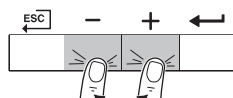
Fig.7 Step 5



MW-3000302-01

5. Press the **←** key to confirm selection of the required menu or parameter.

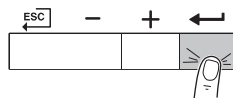
Fig.8 Step 6



MW-3000303-01

6. Press the **+** or **-** key to modify the value.

Fig.9 Step 7

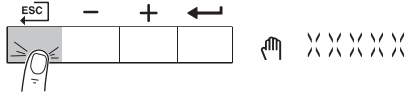


MW-3000304-01


7. Press the **←** key to confirm the value.

4 Use of the control panel

Fig.10 Step 8



MW-3000305-01

8. Press the  key to go back to the main display.



**Important**

The screen will return to stand-by if no key is pressed for three minutes.

## 5 User instructions

### 5.1 Setting the language and time



#### Important

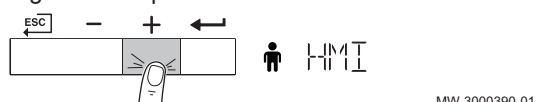
First set the desired language, then the correct time, day and date before further use of the control panel.

Fig.11 Step 2



MW-3000309-01

Fig.12 Step 3



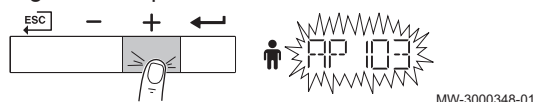
MW-3000390-01

Fig.13 Step 4



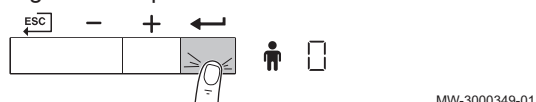
MW-3000333-01

Fig.14 Step 5



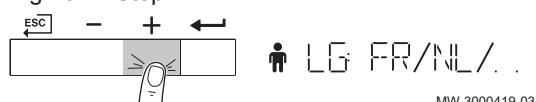
MW-3000348-01

Fig.15 Step 6



MW-3000349-01

Fig.16 Step 7



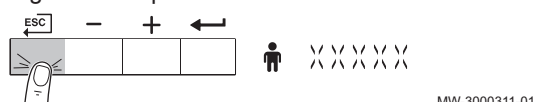
MW-3000419-03

Fig.17 Step 8



MW-3000447-03

Fig.18 Step 9



MW-3000311-01

Fig.19 Step 2



MW-3000320-01

#### 5.1.1 Setting the language

1. Navigate to the User menu.
2. Press the ← key to open the User menu.

3. Keep pressing the + key until **HMI** is displayed.

4. Press the ← key to confirm the selection.

5. Keep pressing the + key until **PP 103** is displayed.

6. Press the ← key to confirm the parameter.

7. Keep pressing the + key until the required language code is displayed.

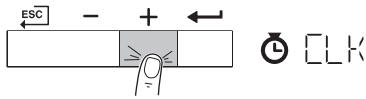
8. Press the ← key to confirm the choice of language.

9. Press the **ESC** key repeatedly or press and hold the **ESC** key to return to the main display.

#### 5.1.2 Setting the time and date

1. Navigate to the Counter menu.
2. Press the ← key to open the counter menu.

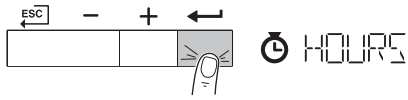
Fig.20 Step 3



MW-3000393-01

3. Keep pressing the + key until the Time display menu is displayed.

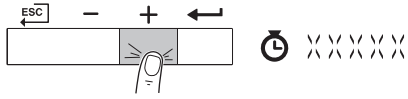
Fig.21 Step 4



MW-3000353-01

4. Press the ← key to access the hours.

Fig.22 Step 5

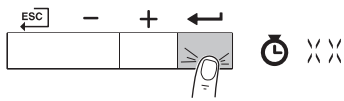


MW-3000446-01

5. Press the + key to access the following parameters:

- Minutes
- Day
- Month
- Year

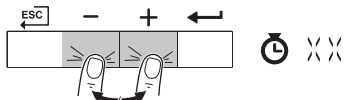
Fig.23 Step 6



MW-3000354-01

6. Press the ← key to confirm the parameter.

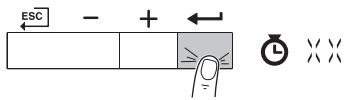
Fig.24 Step 7



MW-3000355-01

7. Press the key + or - to change the value.

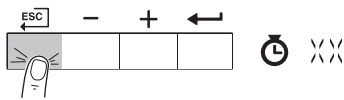
Fig.25 Step 8



MW-3000354-01

8. Press the ← key to confirm the value.

Fig.26 Step 9



MW-3000397-01

9. Press the ESC key multiple times to go back to the main display.

## 5.2 Changing user parameters

The parameters in the user menu can be changed by the end user or the installer.



### Important

First, select a device, control PCB or zone to view or amend a setting.



### Caution

Modification of the factory settings may impair operation of the device, control PCB or zone.

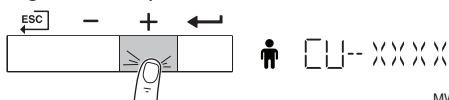
Fig.27 Step 2



MW-3000309-01

1. Navigate to the User menu.  
2. Press the ← key to open the menu.

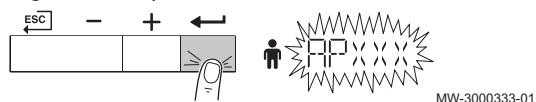
Fig.28 Step 3



MW-3000402-01

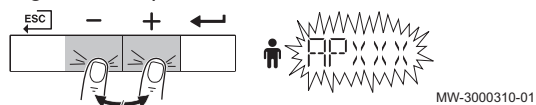
3. Keep pressing the + key until the required device, control PCB or zone is displayed.

Fig.29 Step 4



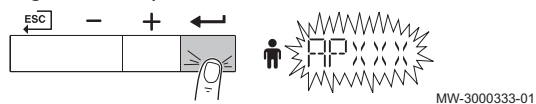
4. Press the ← key to confirm the selection.

Fig.30 Step 5



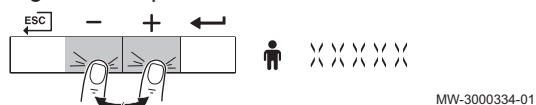
5. Keep pressing the + or - key until the required parameter is displayed.

Fig.31 Step 6



6. Press the ← key to confirm the selection.

Fig.32 Step 7



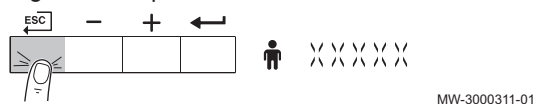
7. Press the + or - key to modify the value.

Fig.33 Step 8



8. Press the ← key to confirm the value.

Fig.34 Step 9



9. Press the ESC key multiple times to go back to the main display.



For more information, see List of parameters, page 26

### 5.3 Changing the central heating flow temperature

The central heating flow temperature can be raised or lowered separately from the heating requirement.



**Important**

The central heating flow temperature can only be adjusted in this way if an on/off thermostat is used.

Fig.35 Step 1




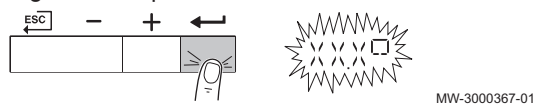
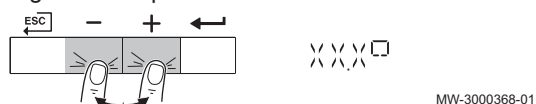
1. Press the  key to select the central heating flow temperature.

Fig.36 Step 2



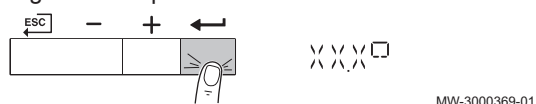
2. Press the ← key to access the central heating flow temperature.

Fig.37 Step 3



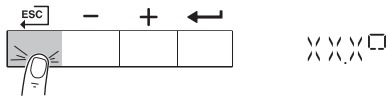
3. Press the + or - key for the required CH flow temperature.

Fig.38 Step 4



4. Press the ← key to confirm the value.

Fig.39 Step 5



MW-3000370-01

5. Press the key to go back to the main display.

## 5.4 Changing the domestic hot water temperature

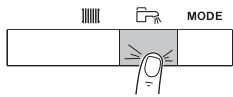
The temperature of the domestic hot water can be changed as needed.



### Important

The domestic hot water temperature can only be adjusted in this way if a domestic hot water sensor is installed.

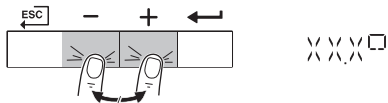
Fig.40 Step 1



MW-3000371-01

1. Press the key to select the domestic hot water temperature.

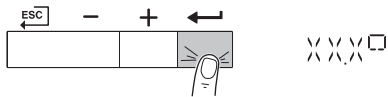
Fig.41 Step 2



MW-3000368-01

2. Press the **+** or **-** key for the required temperature.

Fig.42 Step 3



MW-3000369-01

3. Press the key to confirm the value.

## 5.5 Setting the Timer Program

If a timed thermostat is not being used, the timer program for the appliance can be used. The Timer Program can be used to lower the heating temperature during the night or an absence during the day. A start and end time for the lower temperature can be set in the Timer Program.



### Important

- Activate the timer program using the parameter: **CP320**
- The timer program can be set for each zone (heating, domestic hot water or cooling).

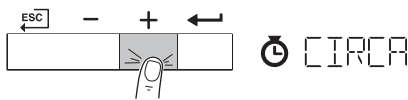
Fig.43 Step 2



MW-3000320-01

1. Navigate to the Counter menu.
2. Press the key to open the menu.

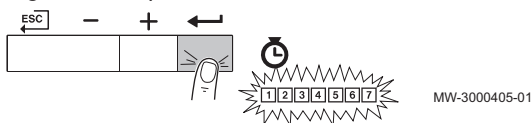
Fig.44 Step 3



MW-3000404-01

3. Keep pressing the **+** key until the required zone is displayed.  
⇒ If there is only a direct heating group, the only option that appears is CIRCA (circuit A).

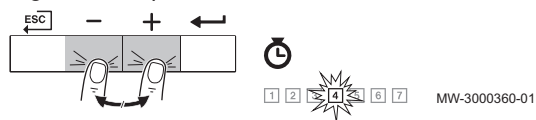
Fig.45 Step 4



MW-3000405-01

4. Press the key to confirm the selection.  
⇒ The icons dedicated to the days of the week all flash at the same time: **1 2 3 4 5 6 7**.

Fig.46 Step 5

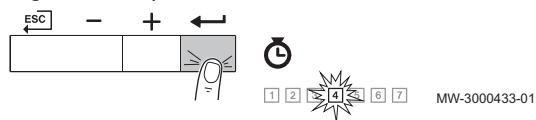


5. Select the required day number by keeping the **+** or **-** key pressed until the icon for the required day flashes.

Tab.4 Day numbers

Day selected	Description
1 2 3 4 5 6 7	Every day of the week
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday

Fig.47 Step 6



6. Press the **←** key to confirm the selection.

Fig.48 Step 7

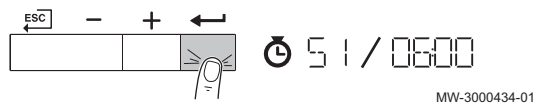


7. Set the start time **S1** by pressing the **+** or **-** key.

Tab.5 Options

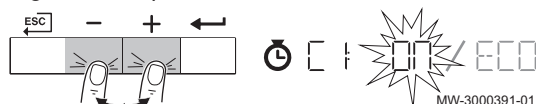
Abbreviation	Description
END	End of programming
S	Switching time or end of day indication (max. 6 switching times)
C	Temperature setting (lower night or comfort temperature)

Fig.49 Step 8



8. Press the **←** key to confirm the selection.

Fig.50 Step 9

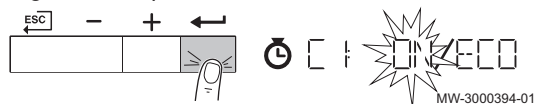


9. Select the status **C1** corresponding with the switch time **S1** by pressing the **+** or **-** key.

Tab.6 Statuses **C1** to **C6** for the periods **S1** to **S6**

C1 to C6	Description
ON	Comfort temperature
ECO	Lower night temperature

Fig.51 Step 10



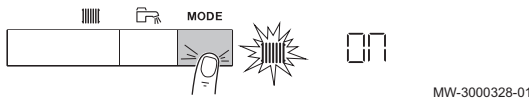
10. Press the **←** key to confirm the selection.
11. Repeat the steps to define the switch times (**S1** to **S6**) and the corresponding statuses (**C1** to **C6**).
12. Press the **ESC** key multiple times to go back to the main display.

Tab.7 Example

Times	1 Monday	2 Tuesday	3 Wednesday	4 Thursday	5 Friday	6 Saturday	7 Sunday
06:00	S1 C1 = ON	S1 C1 = ON	S1 C1 = ON	S1 C1 = ON	S1 C1 = ECO	S1 C1 = ECO	S1 C1 = ON
08:00							
10:00	S2 C2 = ECO	S2 C2 = ECO	S2 C2 = ECO			S2 C2 = ON	S2 C2 = ECO
12:00							
14:00		S3 C3 = ON	S3 C3 = ON	S2 C2 = ECO		S3 C3 = ECO	
16:00					S2 C2 = ON		
18:00	S3 C3 = ON		S4 C4 = ECO	S3 C3 = ON			S4 C4 = ON
20:00		S4 C4 = ECO					
22:00	S4 C4 = ECO			S4 C4 = ECO		S5 C5 = ECO	
23:50							

### 5.6 Switching off the central heating

Fig.52 Step 1



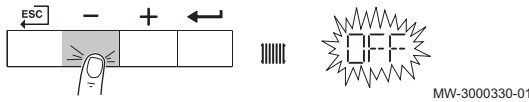
1. Press the **MODE** key for about 2 seconds.

Fig.53 Step 2



2. Press the **←** key to confirm the selection for the central heating.


Fig.54 Step 3



3. Press the **-** key to change the current CH status.

Fig.55 Step 4



4. Press the **←** key to confirm the changed status.  
 ⇒ The heating has been switched off. The main display appears, together with the  symbol.

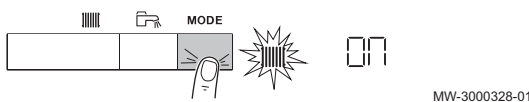


**Important**

The frost protection function continues to run.

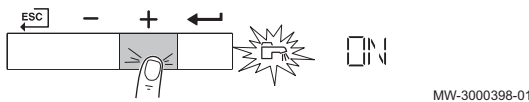
### 5.7 Switching off DHW production

Fig.56 Step 1



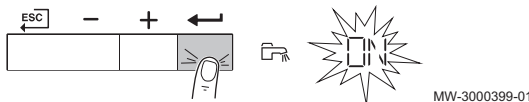
1. Press the **MODE** key for about 2 seconds.

Fig.57 Step 2



2. Press the **+** key to select DHW production.

Fig.58 Step 3



3. Press the **←** key to confirm the selection of DHW production.



Fig.59 Step 4

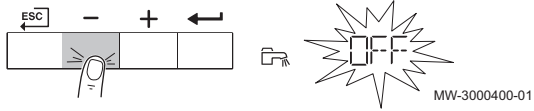
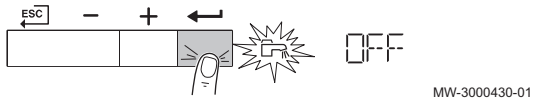



Fig.60 Step 5



4. Press the ← key to change the current status of DHW production.

5. Press the ← key to confirm the changed status.  
 ⇒ DHW production is switched off. The main display appears, together with the  symbol.

**Important**

The frost protection function continues to run.

## 6 Installer instructions

### 6.1 Changing installer parameters

The parameters in the Installer Menu must only be changed by a qualified professional. Code **0012** must be entered in order to change the parameters.



**Important**

First, select a device, control PCB or zone to view or amend a setting.



**Caution**

Modification of the factory settings may impair operation of the device, control PCB or zone.

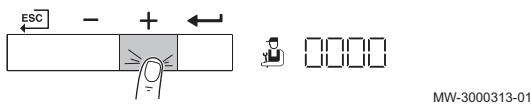
1. Navigate to the Installer menu.
2. Press the key to open the menu.

Fig.61 Step 2



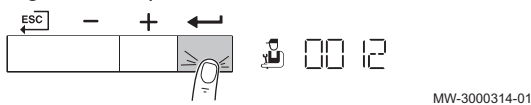
MW-3000312-01

Fig.62 Step 3



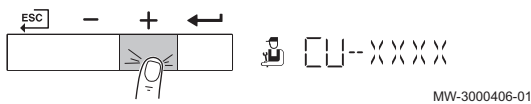
MW-3000313-01

Fig.63 Step 4



MW-3000314-01

Fig.64 Step 5



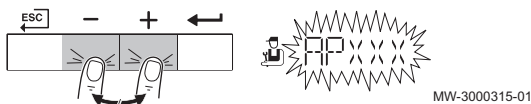
MW-3000406-01

Fig.65 Step 6



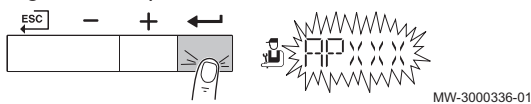
MW-3000407-01

Fig.66 Step 7



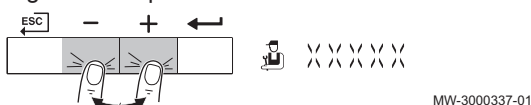
MW-3000315-01

Fig.67 Step 8



MW-3000336-01

Fig.68 Step 9



MW-3000337-01

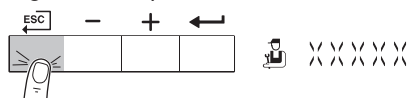
Fig.69 Step 10



MW-3000338-01

3. Keep pressing the **+** key until the code **0012** is displayed.
4. Press the key to confirm opening the menu.
5. Keep pressing the **+** key until the required device, control PCB or zone is displayed.
6. Press the key to confirm the selection.
7. Keep pressing the **+** or **-** key until the required parameter is displayed.
8. Press the key to confirm the selection.
9. Press the **+** or **-** key to modify the value.
10. Press the key to confirm the value.

Fig.70 Step 11



MW-3000316-01

11. Press the key multiple times to go back to the main display.



**For more information, see**  
List of parameters, page 26

## 6.2 Adjusting advanced parameters

The advanced parameters at installer level may only be changed by a qualified professional. Code must be entered in order to change the parameters.



### Important

First, select a device, control PCB or zone to view or amend a setting.



### Caution

Modification of the factory settings may impair operation of the device, control PCB or zone.

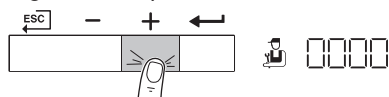
1. Navigate to the Installer menu.
2. Press the key to open the menu.

Fig.71 Step 2



MW-3000312-01

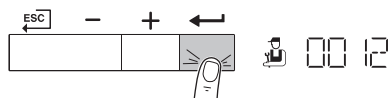
Fig.72 Step 3



MW-3000313-01

3. Keep pressing the key until the code is displayed.

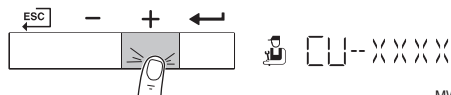
Fig.73 Step 4



MW-3000314-01

4. Press the key to confirm opening the menu.

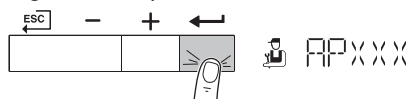
Fig.74 Step 5



MW-3000406-01

5. Keep pressing the key until the required device, control PCB or zone is displayed.

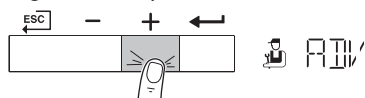
Fig.75 Step 6



MW-3000407-01

6. Press the key to confirm the selection.

Fig.76 Step 7



MW-3000408-01

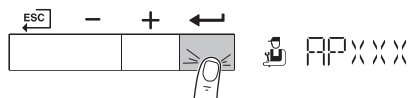
7. Keep pressing the key until is displayed.



### Important

The text can only appear if the advanced parameters for the appliance, control PCB or zone are available.

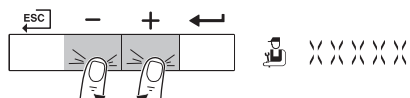
Fig.77 Step 8



MW-3000407-01

8. Press the key to confirm the selection.

Fig.78 Step 9



MW-3000337-01

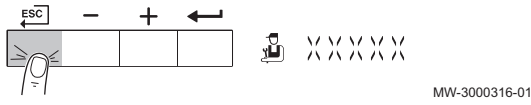
9. Press the or key to modify the value.

Fig.79 Step 10



10. Press the ← key to confirm the value.

Fig.80 Step 11



11. Press the ESC key multiple times to go back to the main display.



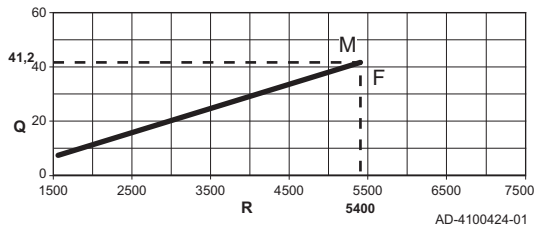
For more information, see List of parameters, page 26

### 6.3 Configuring the installation

#### 6.3.1 Setting the maximum load for CH operation

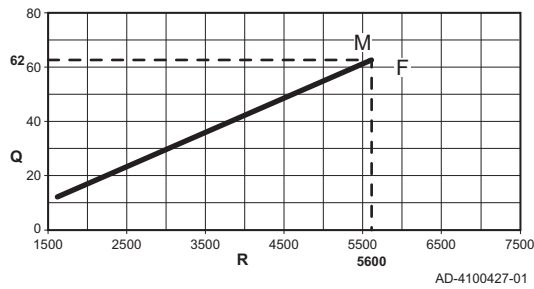
See the graphs for the relationship between load and speed for natural gas. The speed can be changed using parameter GP007.

Fig.81 Load AMC Pro 45



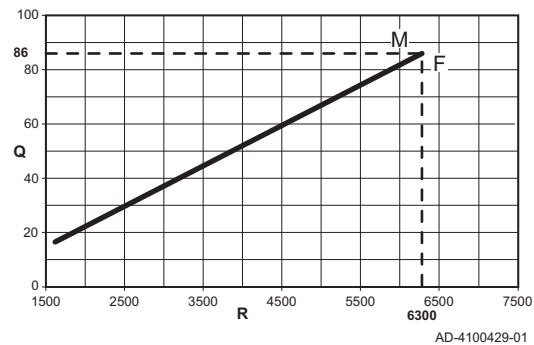
- M Maximum heat input
- F Factory setting
- Q Input (Hi) (kW)
- R Fan speed (rpm)

Fig.82 Load AMC Pro 65



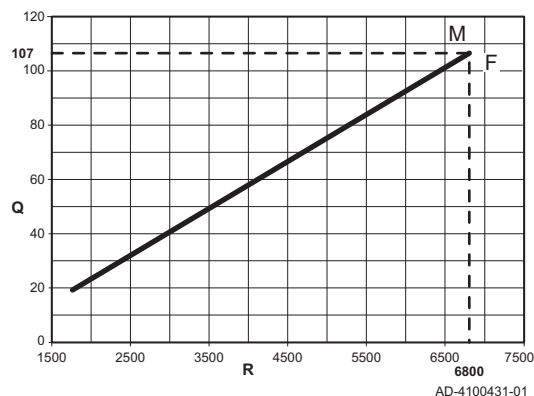
- M Maximum heat input
- F Factory setting
- Q Input (Hi) (kW)
- R Fan speed (rpm)

Fig.83 Load AMC Pro 90



- M Maximum heat input
- F Factory setting
- Q Input (Hi) (kW)
- R Fan speed (rpm)

Fig.84 Load AMC Pro 115



- M Maximum heat input
- F Factory setting
- Q Input (Hi) (kW)
- R Fan speed (rpm)

Fig.85 Step 2



Fig.86 Step 3

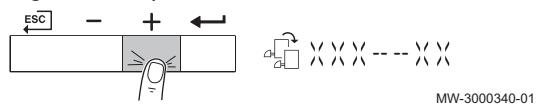
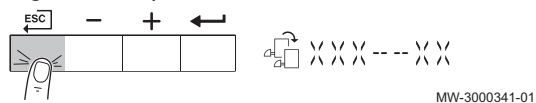


Fig.87 Step 4



### 6.3.2 Connected control PCBs

1. Navigate to the control PCB menu.
2. Press the ← key to open the menu.
3. To see which control PCBs are connected, press the + key.
4. Press the ←<sup>ESC</sup> key twice to go back to the main display.

## 6.4 Commissioning

### 6.4.1 Chimney sweep mode (forced full load or part load)

Fig.88 Step 1

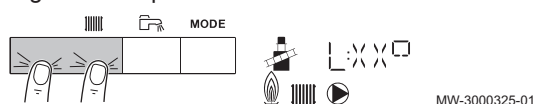


Fig.89 Step 2

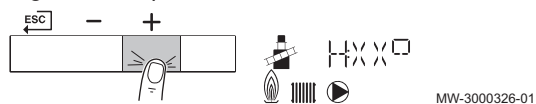
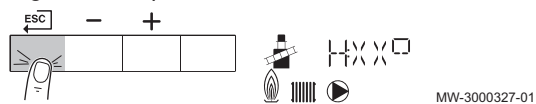


Fig.90 Step 3



1. Press the two keys on the left simultaneously to select chimney sweep mode.
  - ⇒ The device is now running at part load. Wait until  $\square$ : $\square$  $\square$  $\square$  $\square$  appears on the display.
2. Press the + key twice.
  - ⇒ The device is now running at full load. Wait until  $\square$ : $\square$  $\square$  $\square$  $\square$  appears on the display.
3. Press the ←<sup>ESC</sup> key to go back to the main display.

## 6.5 Maintaining the installation

### 6.5.1 Reading out measured values

#### ■ Reading out counters

You can read out the counters of the appliance and the connected control boards, sensors and so on.

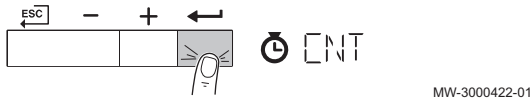
1. Navigate to the Counter menu.

Fig.91 Step 2



2. Press the ← key to open the menu.

Fig.92 Step 3



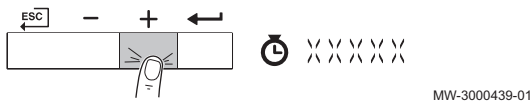
3. Press the ← key to confirm the selection.  
⇒ The text **CODE** flashes in the display.

Fig.93 Step 4



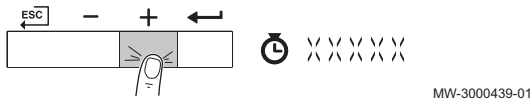
4. Press the ← key to confirm the selection.

Fig.94 Step 5



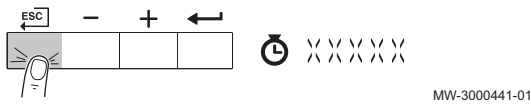
5. Keep pressing the + key until the code **0012** is displayed.

Fig.95 Step 6



6. Keep pressing the + key until the required value is displayed.

Fig.96 Step 7



7. Press the  key multiple times to go back to the main display.



**For more information, see**  
List of measured values, page 32

### ■ Reading out signals and software versions

You can read out the signals and software versions of the appliance and the connected control boards, sensors and so on.

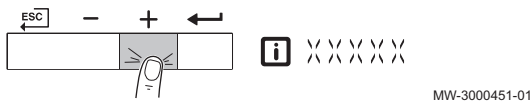
1. Navigate to the Information menu.
2. Press the ← key to open the menu.

Fig.97 Step 2



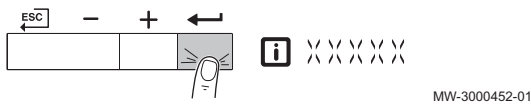
3. Keep pressing the + key until the required device, control PCB or zone is displayed.

Fig.98 Step 3



4. Press the ← key to confirm the selection.

Fig.99 Step 4



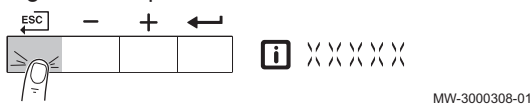
5. Keep pressing the + or - key until the required value is displayed.  
At the end of the cycle, the software version and parameter version of the selected appliance or control PCB are displayed.

Fig.100 Step 5



6. Press the  key multiple times to go back to the main display.

Fig.101 Step 6



**For more information, see**  
List of measured values, page 32

## ■ Status and Sub-status

The information menu  gives the Status and Sub-status numbers.



**For more information, see**  
List of measured values, page 32

### 6.5.2 Activating the manual mode menu

In some cases, it may be necessary to set the device to manual mode, for example when the controller has not yet been connected.




1. Navigate to the manual mode menu.
2. Press the  key to open the menu.
3. Press the **+** or **-** keys to modify the required flow temperature in manual mode.
4. Press the  key to confirm the value.  
⇒ Manual mode is switched on.
5. Press the  key twice to go back to the main display.  
⇒ Manual mode is switched off.

Fig.102 Step 2



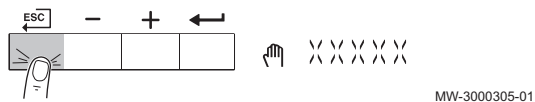
Fig.103 Step 3



Fig.104 Step 4



Fig.105 Step 5



## 6.6 Resetting or restoring settings

### 6.6.1 Restoring to factory settings



1. Navigate to the Installer menu.
2. Press the  key to open the menu.
3. Keep pressing the **+** key until the code **00 12** is displayed.
4. Press the  key to confirm opening the menu.
5. Keep pressing the **+** key until the required device or PCB is displayed.

Fig.106 Step 2



Fig.107 Step 3



Fig.108 Step 4

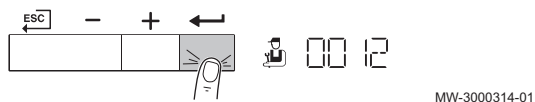


Fig.109 Step 5

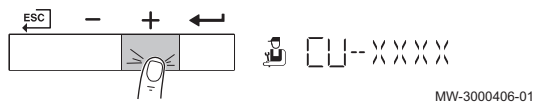
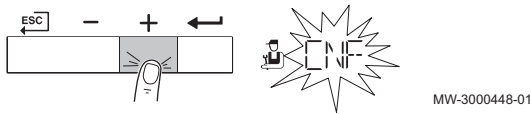


Fig.110 Step 6



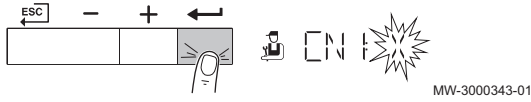
6. Press the ← key to confirm the selection.

Fig.111 Step 7



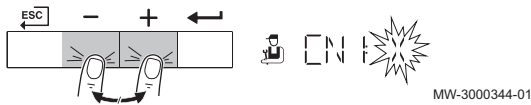
7. Keep pressing the + key until CNF is displayed.

Fig.112 Step 6



8. Press the ← key to open the first factory setting CN1.

Fig.113 Step 7



9. Press the + or - keys to modify the value.



See

The data plate for the CN1 value.

Fig.114 Step 8



10. Press the ← key to confirm the value.

Fig.115 Step 9



11. Press the + or - keys to modify the value.



See

The data plate for the CN2 value.

Fig.116 Step 10



12. Press the ← key to confirm the value.

⇒ The factory settings are reset. The display shows various information and returns to the main display after 3 minutes.

### 6.6.2 Carrying out an auto-detect

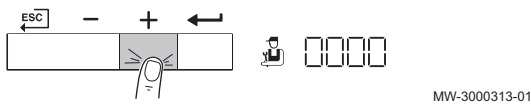
Carry out an auto-detect after removing or replacing an (optional) control PCB.

Fig.117 Step 2



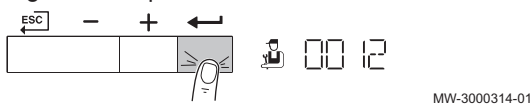
1. Navigate to the Installer menu.
2. Press the ← key to open the menu.

Fig.118 Step 3



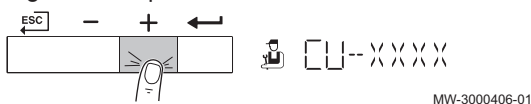
3. Keep pressing the + key until the code 0012 is displayed.

Fig.119 Step 4



4. Press the ← key to confirm opening the menu.

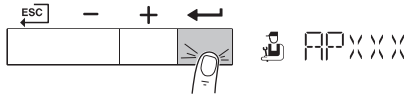
Fig.120 Step 5



5. Keep pressing the + key until the device is displayed.



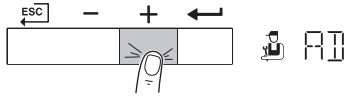
Fig.121 Step 6



MW-3000407-01

6. Press the ← key to confirm the selection.

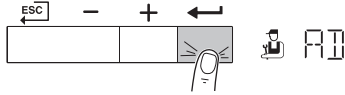
Fig.122 Step 7



MW-3000412-01

7. Keep pressing the + key until **AD** is displayed.

Fig.123 Step 8



MW-3000413-01

8. Press the ← key to carry out the auto-detect.

9. After a while, the main display is shown; auto-detect is complete.

# 7 Settings

## 7.1 Introduction to parameter codes

The controls platform makes use of an advanced system to categorise parameters, measurements and counters. Knowing the logic behind these codes, makes it easier to identify them. The code consists of two letters and three numbers.

Fig.124 First letter



The first letter is the category the code relates to.

- A** Appliance: Appliance
- C** Circuit: Zone
- D** Domestic hot water: Domestic hot water
- G** Gas fired: Gas-fired heat engine
- P** Producer: Central heating

Category D codes are appliance controlled only. When the domestic hot water is controlled by an SCB, it is handled like a circuit, with C-category codes.

Fig.125 Second letter



The second letter is the type.

- P** Parameter: Parameters
- C** Counter: Counters
- M** Measurement: Signals

Fig.126 Number



The number is always three digits. In certain cases, the last of the three digits relates to a zone.

## 7.2 List of parameters

### 7.2.1 Control unit settings



**Important**

- All tables show the factory setting for the parameters.
- The tables also list parameters that are only applicable if the boiler is combined with other equipment such as an outdoor sensor.
- All possible options are indicated in the adjustment range. The display of the boiler only shows the relevant settings for the appliance.

Tab.8 Navigation for user level

Level	Menu cascade
User	> Submenu <sup>(1)</sup>

(1) See the column "Submenu" in the following table for the correct navigation. The parameters are grouped in specific functionalities.


Tab.9 Factory settings at user level

Code	Display text	Description	Range	Submenu	45	65	90	115
AP016	CH function on	Enable central heating heat demand processing	0 = Off 1 = On	CU-GH08	1	1	1	1
AP017	DHW function on	Enable domestic hot water heat demand processing	0 = Off 1 = On	CU-GH08	1	1	1	1
AP073	Summer Winter	Outdoor temperature: upper limit for heating	10 °C - 30 °C	CU-GH08	22	22	22	22
AP074	Force summer mode	The heating is stopped. Hot water is maintained. Force Summer Mode	0 = Off 1 = On	CU-GH08	0	0	0	0

Code	Display text	Description	Range	Submenu	45	65	90	115
CP010	Tflow setpoint zone	Zone flow temperature setpoint, used when the zone is set to a fixed flow setpoint.	0 °C - 90 °C	CIRCA	80	80	80	80
CP080	User T.Room Activity	Room setpoint temperature of the user zone activity	5 °C - 30 °C	CIRCA	16	16	16	16
CP081	User T.Room Activity	Room setpoint temperature of the user zone activity	5 °C - 30 °C	CIRCA	20	20	20	20
CP082	User T.Room Activity	Room setpoint temperature of the user zone activity	5 °C - 30 °C	CIRCA	6	6	6	6
CP083	User T.Room Activity	Room setpoint temperature of the user zone activity	5 °C - 30 °C	CIRCA	21	21	21	21
CP084	User T.Room Activity	Room setpoint temperature of the user zone activity	5 °C - 30 °C	CIRCA	22	22	22	22
CP085	User T.Room Activity	Room setpoint temperature of the user zone activity	5 °C - 30 °C	CIRCA	20	20	20	20
CP200	Manu ZoneRoomTempSet	Manually setting the room temperature setpoint of the zone	5 °C - 30 °C	CIRCA	20	20	20	20
CP320	OperatingZoneMode	Operating mode of the zone	0 = Scheduling 1 = Manual 2 = Antifrost 3 = Temporary	CIRCA	1	1	1	1
CP510	Temporary Room Setp	Temporary room setpoint per zone	5 °C - 30 °C	CIRCA	20	20	20	20
CP550	Zone, fire place	Fire Place mode is active	0 = Off 1 = On	CIRCA	0	0	0	0
CP660	Icon display zone	Choice icon to display this zone	0 = None 1 = All 2 = Bedroom 3 = Livingroom 4 = Study 5 = Outdoor 6 = Kitchen 7 = Basement 8 = Swimming Pool 9 = DHW Tank 10 = DHW Electrical Tank 11 = DHW Layered Tank 12 = Internal Boiler Tank 13 = Time Program	CIRCA	3	3	3	3
DP060	DHW timeprog. select	Time program selected for DHW.	0 = Schedule 1 1 = Schedule 2 2 = Schedule 3 3 = Cooling	DHW	0	0	0	0
DP070	DHW comfort setpoint	Comfort temperature setpoint from the Domestic Hot Water tank	40 °C - 65 °C	DHW	60	60	60	60
DP080	DHW reduced setpoint	Reduced temperature setpoint from the Domestic Hot Water tank	7 °C - 50 °C	DHW	15	15	15	15
DP190	End change mode	End change mode Time TimeStamp		DHW	-	-	-	-

Code	Display text	Description	Range	Submenu	45	65	90	115
DP200	DHW mode	DHW primary mode current working setting	0 = Scheduling 1 = Manual 2 = Antifrost 3 = Temporary	DHW	1	1	1	1
DP337	DHW holiday setpoint	Holiday temperature setpoint from the Domestic Hot Water tank	10 °C - 60 °C	DHW	10	10	10	10

Tab.10 Navigation for installer level

Level	Menu cascade
Installer	 > Submenu <sup>(1)</sup>
(1) See the column "Submenu" in the following table for the correct navigation. The parameters are grouped in specific functionalities.	


Tab.11 Factory settings at installer level

Code	Display text	Description	Range	Submenu	45	65	90	115
AP001	BL input setting	Blocking input setting (1: Full blocking, 2: Partial blocking, 3: User reset locking)	1 = Full blocking 2 = Partial blocking 3 = User reset locking 4 = Backup relieved 5 = Generator relieved 6 = Gen.&Backup relieved 7 = High, Low Tariff 8 = Photovoltaic HP Only 9 = PV HP And backup 10 = Smart Grid ready 11 = Heating Cooling	CU-GH08	1	1	1	1
AP003	Flue Valve Wait Time	Wait time after burner command to open flue gas valve	0 Sec - 255 Sec	CU-GH08	0	0	0	0
AP006	Min. water pressure	Appliance will report low water pressure below this value	0 bar - 6 bar	CU-GH08	0,8	0,8	0,8	0,8
AP008	Time release signal	The appliance will wait x sec (0=off) for the release contact to close in order to start the burner	0 Sec - 255 Sec	CU-GH08	0	0	0	0
AP009	Service hours burner	Burning hours before raising a service notification	0 Hours - 51000 Hours	CU-GH08	6000	6000	6000	6000
AP010	Service notification	The type of service needed based on burn and powered hours	0 = None 1 = Custom notification 2 = ABC notification	CU-GH08	0	0	0	0
AP011	Service hours mains	Hours powered to raise a service notification	0 Hours - 51000 Hours	CU-GH08	35000	35000	35000	35000
AP063	CH Set Max System	Maximum flow temperature setpoint for burning at central heating	20 °C - 90 °C	CU-GH08	90	90	90	90
AP079	Building Inertia	Inertia of the building used for heat up speed	0 - 15	CU-GH08	3	3	3	3
AP080	Frost min out temp	Outside temperature below which the antifreeze protection is activated	-60 °C - 25 °C	CU-GH08	-10	-10	-10	-10
AP082	Enable daylight save	Enable daylight saving for the system to save energy during winter	0 = Off 1 = On	CU-GH08	1	1	1	1

Code	Display text	Description	Range	Submenu	45	65	90	115
AP091	Outside Sens. Source	Type of outside sensor connection to be used	0 = Auto 1 = Wired sensor 2 = Wireless sensor 3 = Internet measured 4 = None	CU-GH08	0	0	0	0
AP108	OutsideSensorEnabled	Enable the function Outside Sensor	0 = Auto 1 = Wired sensor 2 = Wireless sensor 3 = Internet measured 4 = None	CU-GH08	0	0	0	0
CP000	MaxZoneTFlowSetpoint	Maximum Flow Temperature setpoint zone	0 °C - 90 °C	CIRCA	80	80	80	80
CP020	Zone Function	Functionality of the zone	0 = Disable 1 = Direct 2 = Mixing Circuit 3 = Swimming pool 4 = High Temperature 5 = Fan Convector 6 = DHW tank 7 = Electrical DHW 8 = Time Program 9 = ProcessHeat 10 = DHW Layered 11 = DHW Internal tank 12 = DHW Commercial Tank 31 = DHW FWS EXT	CIRCA	1	1	1	1
CP060	RoomT. Holiday	Wished room zone temperature on holiday period	5 °C - 20 °C	CIRCA	6	6	6	6
CP070	MaxReducedRoomT.Lim	Max Room Temperature limit of the circuit in reduced mode, that allows switching to comfort mode	5 °C - 30 °C	CIRCA	16	16	16	16
CP210	Zone HCZP Comfort	Comfort footpoint of the temperature of heat curve of the circuit	15 °C - 90 °C	CIRCA	15	15	15	15
CP220	Zone HCZP Reduced	Reduced footpoint of the temperature of heat curve of the circuit	15 °C - 90 °C	CIRCA	15	15	15	15
CP230	Zone Heating Curve	Heating curve temperature gradient of the zone	0 - 4	CIRCA	1,5	1,5	1,5	1,5
CP340	TypeReducedNightMode	Type of reduced night mode, stop or maintain heating of circuit	0 = Stop heat demand 1 = Continue heat demand	CIRCA	1	1	1	1
CP470	Zone screed drying	Setting of the screed drying program of the zone	0 Days - 30 Days	CIRCA	0	0	0	0
CP480	ScreedStartTemp	Setting of the start temperature of the screed drying program of the zone	20 °C - 50 °C	CIRCA	20	20	20	20
CP490	ScreedStopTemp	Setting of the stop temperature of the screed drying program of the zone	20 °C - 50 °C	CIRCA	20	20	20	20
CP570	ZoneTimeProg Select	Time Program of the zone selected by the user	0 = Schedule 1 1 = Schedule 2 2 = Schedule 3 3 = Cooling	CIRCA	0	0	0	0

Code	Display text	Description	Range	Submenu	45	65	90	115
CP730	Zone Heat up speed	Selection of heat up speed of the zone	0 = Extra Slow 1 = Slowest 2 = Slower 3 = Normal 4 = Faster 5 = Fastest	CIRCA	3	3	3	3
CP740	Zone cool down speed	Selection of cool down speed of the zone	0 = Slowest 1 = Slower 2 = Normal 3 = Faster 4 = Fastest	CIRCA	2	2	2	2
CP750	MaxZone Preheat time	Maximum zone preheat time	0 Min - 240 Min	CIRCA	90	90	90	90
CP780	Control strategy	Selection of the control strategy for the zone	0 = Automatic 1 = Room Temp. based 2 = Outdoor Temp. based 3 = Outdoor & room based	CIRCA	0	0	0	0
DP004	Legionella calor.	Legionella mode protection calorifier	0 = Disabled 1 = Weekly 2 = Daily	DHW	1	1	1	1
DP007	Dhw 3wv Standby	Position of three way valve during standby	0 = CH position 1 = DHW position	DHW	0	0	0	0
DP035	Start pump DHW calo	Start pump for Domestic Hot Water calorifier	-20 °C - 20 °C	DHW	-3	-3	-3	-3
DP150	DHW Thermostat	Set DHW Thermostat function On or Off	0 = Off 1 = On	DHW	1	1	1	1
DP160	DHW AntiLeg Setpoint	Setpoint for DHW anti legionella	50 °C - 90 °C	DHW	70	70	70	70
DP170	Start time holiday	Start time of holiday Time stamp		DHW	-	-	-	-
DP180	End time holiday	End time of holiday Timestamp		DHW	-	-	-	-
GP017	Max power	Maximum power percentage in kilo Watt	0 kW - 80 kW	CU-GH08	71,5	103,6	124,5	140,9
GP050	Power Min	Minimum power in kilo Watt for RT2012 calculation	0 kW - 80 kW	CU-GH08	4,7	6,7	10,8	11,4
PP015	CH Pump postrun time	Central heating pump post run time	0 Min - 99 Min	CU-GH08	1	1	1	1

Tab.12 Navigation for advanced installer level

Level	Menu cascade
Advanced installer	 > Submenu <sup>(1)</sup> > ADV
(1) See the column "Submenu" in the following table for the correct navigation. The parameters are grouped in specific functionalities.	

Tab.13 Factory settings at advanced installer level

Code	Display text	Description	Range	Submenu	45	65	90	115
AP002	Manual Heat Demand	Enable manual heat demand function	0 = Off 1 = With setpoint 2 = TOutdoor Control	CU-GH08	0	0	0	0
AP026	Setpoint manual HD	Flow temperature setpoint for manual heat demand	10 °C - 90 °C	CU-GH08	40	40	40	40
AP056	Outdoor sensor	Enable outdoor sensor	0 = No outside sensor 1 = AF60 2 = QAC34	CU-GH08	1	1	1	1

Code	Display text	Description	Range	Submenu	45	65	90	115
AP102	Boiler Pump function	Configuration of the boiler pump as zone pump or system pump (feed lowloss header)	0 = No 1 = Yes	CU-GH08	0	0	0	0
AP111	Can line length	Can line length	0 = < 3m 1 = < 80m 2 = < 500m	CU-GH08	0	0	0	0
CP130	T.OutdoorToZone	Assigning the outdoor sensor to zone ...	0 - 4	CIRCA	0	0	0	0
CP240	ZoneRoomUnitInfl	Adjustment of the influence of the zone room unit	0 - 10	CIRCA	3	3	3	3
CP250	CalSondeAmbZone	Calibration of Zone Room Unit	-5 °C - 5 °C	CIRCA	0	0	0	0
CP670	ConfPairingRU Zone	Configuration of pairing room unit per zone		CIRCA	-	-	-	-
CP770	Zone Buffered	The zone is after a Buffer tank	0 = No 1 = Yes	CIRCA	0	0	0	0
DP003	Abs. max fan DHW	Maximum fan speed on Domestic Hot Water	1000 Rpm - 7000 Rpm	DHW	5400	5600	6300	6700
DP005	Calorifier Tf offset	Flow setpoint offset for loading calorifier	0 °C - 50 °C	DHW	20	20	20	20
DP006	Hyst calorifier	Hysteresis to start heating calorifier	2 °C - 15 °C	DHW	5	5	5	5
DP020	Postrun DHW pump/3wv	Post run time of the DHW pump/3 way valve after DHW production	0 Sec - 99 Sec	DHW	10	10	10	10
DP034	DhwCalorifier Offset	Offset for calorifier sensor	0 °C - 10 °C	DHW	2	2	2	2
DP140	DHW load type	DHW load type (0 : Combi, 1 : Solo)	0 = Combi 1 = Solo 2 = Layered cylinder 3 = Process heat 4 = External	DHW	1	1	1	1
GP007	Fan RPM Max CH	Maximum fan speed during Central Heating mode	1400 Rpm - 7000 Rpm	CU-GH08	5400	5600	6300	6800
GP008	Fan RPM Min	Minimum fan speed during Central Heating + Domestic Hot Water mode	1400 Rpm - 4000 Rpm	CU-GH08	1550	1600	1600	1750
GP009	Fan RPM Start	Fan speed at appliance start	1000 Rpm - 4000 Rpm	CU-GH08	2500	2500	2500	2500
GP010	GPS Check	Gas Pressure Switch check on/off	0 = No 1 = Yes	CU-GH08	0	0	0	0
GP021	Temp diff Modulating	Modulate back when delta temperature is large then this treshold	10 °C - 40 °C	CU-GH08	25	25	25	20
GP022	Tfa Filter Tau	Tau factor for average flow temperature calculation	1 - 255	CU-GH08	1	1	1	1
PP014	ChPumpDTReduction	Reduction of temperature delta modulating for pump modulation	0 °C - 40 °C	CU-GH08	18	18	18	18
PP016	Max. CH pump speed	Maximum central heating pump speed (%)	20 % - 100 %	CU-GH08	100	100	100	100
PP017	ChPumpSpeedMaxFactor	Maximum central heating at minimum load as percentage of max pump speed	0 % - 100 %	CU-GH08	100	100	100	100
PP018	Min CH pump speed	Minimum central heating pump speed (%)	20 % - 100 %	CU-GH08	30	30	30	30
PP023	Start hysteresis CH	Hysteresis to start burner in heating mode	1 °C - 10 °C	CU-GH08	10	10	10	10

## 7.2.2 Description of settings - Inicontrol 2


Tab.14 Factory settings -  > HMI

Code	Display text	Description	Adjustment range	Default setting
AP067	BKL	Setting backlighting	0 = Backlighting off after 3 minutes 1 = Backlighting remains on	0
AP082	DLS	Setting summer time	0 = Manual switching summer/winter time 1 = Automatic switching summer/winter time	1
AP103	LG	Setting the language	0 = No language EN = English FR = French DE = German NL = Dutch IT = Italian ES = Spanish PL = Polish PT = Portuguese	0
AP104	CRT	Setting contrast	0 - 3	3
AP105	UNT	Setting units	0 = bar / °C 1 = psi / °F	0

## 7.3 List of measured values

### 7.3.1 Control unit counters

Tab.15 Navigation for installer level

Level	Menu path
Installer	 > CNT

Tab.16 Counters at installer level


Code	Display text	Description	Range
AC002	Service Burning hrs	Number of hours that the appliance has been producing energy since last service	0 Hours - 131068 Hours
AC003	Hours Op. Service	Number of hours since the previous servicing of the appliance	0 Hours - 131068 Hours
AC004	Burner Starts	Number of generator startings since the previous servicing.	0 - 4294967294
AC026	Pump running hours	Counter that shows the number of pump running hours	0 Hours - 65534 Hours
AC027	Pump starts	Counter that shows the number of pump starts	0 - 65534
DC002	DHW valve cycles	Numbers of Domestic Hot Water diverting valve cycles	0 - 4294967294
DC003	Hrs DHW 3wv	Number of hours during which the diverting valve is in DHW position	0 Hours - 65534 Hours
DC004	DHW burner starts	Number of burner starts for Domestic Hot Water	0 - 65534
DC005	DHW burning hours	Number of burning hours in Domestic Hot Water	0 Hours - 65534 Hours
GC007	Failed starts	Number of failed starts	0 - 65534
PC001	ChCtrTotalPowerCons.	Total power consumption used by Central Heating	0 kW - 4294967294 kW
PC002	Burner starts total	Total number of burner starts. For heating and domestic hot water	0 - 4294967294



Code	Display text	Description	Range
PC003	Hrs Burning total	Total number of burning hours. For heating and domestic hot water	0 Hours - 65534 Hours
PC004	Burner flame loss	Number of burner flame loss	0 - 65534

### 7.3.2 Control unit signals

Tab.17 Navigation for user level

Level	Menu path
User	 > CU-GH08

Tab.18 Signals at user level

Code	Display text	Description	Range
AM001	DHW active	Is the appliance currently in domestic hot water production mode?	0 = Off 1 = On
AM010	Pump speed	The current pump speed	0 % - 100 %
AM011	Service required?	Is service currently required?	0 = No 1 = Yes
AM015	Pump running?	Is the pump running?	0 = Inactive 1 = Active
AM016	System Flow Temp	Flow temperature of appliance.	-25 °C - 150 °C
AM018	T return	Return temperature of appliance. The temperature of the water entering the appliance.	-25 °C - 150 °C
AM019	Water pressure	Water pressure of the primary circuit.	0 bar - 4 bar
AM022	On / Off heat demand	On / Off heat demand	0 = Off 1 = On
AM027	Outside temperature	Instantaneous outside temperature	-60 °C - 60 °C
AM033	Next Service Ind.	Next service indication	0 = None 1 = A 2 = B 3 = C 4 = Custom
AM037	3 way valve	Status of the three way valve	0 = CH 1 = DHW
AM040	Control temperature	Temperature used for hot water control algorithms.	0 °C - 250 °C
AP078	Out sensor detected	Outside sensor detected in the application	0 = No 1 = Yes
GM001	Actual fan RPM	Actual fan RPM	0 Rpm - 12000 Rpm
GM002	Fan RPM setpoint	Actual fan RPM setpoint	0 Rpm - 12000 Rpm
GM008	Actual flame current	Actual flame current measured	0 µA - 25 µA

## 8 Maintenance

### 8.1 Maintenance regulations



#### Important

The boiler must be maintained by a qualified installer in accordance with local and national regulations.

- An annual inspection is mandatory.
- Perform the standard checking and maintenance procedures once a year.
- Perform the specific maintenance procedures if necessary.



#### Caution

- Replace defective or worn parts with original spare parts.
- During inspection and maintenance work, always replace all gaskets on the parts removed.
- Check whether all gaskets have been positioned properly (absolutely flat in the appropriate groove means they are gas, air and water tight).
- During the inspection and maintenance work, water (drops, splashes) must never come into contact with the electrical parts.



#### Warning

Always wear safety goggles and a dust mask during cleaning work (involving compressed air).

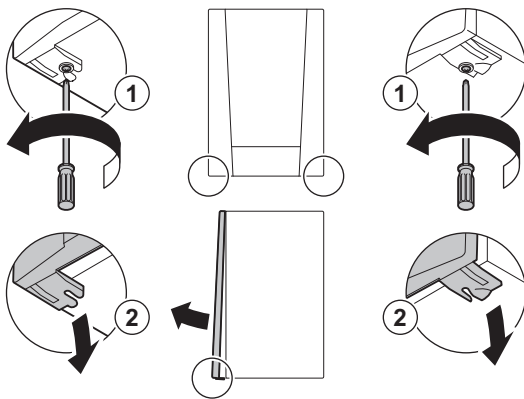


#### Danger of electric shock

Ensure that the boiler is switched off.

### 8.2 Opening the boiler

Fig.127 Opening the boiler



AD-3001159-01

1. Remove the two screws at the bottom of the front casing.
2. Remove the front panel.

### 8.3 Standard inspection and maintenance operations

For a service, always perform the following standard inspection and maintenance operations.

#### 8.3.1 Checking the water pressure

1. Check the water pressure.



#### Important

The recommended water pressure is between 1.5 bar and 2 bar.

- ⇒ The water pressure must be at least 0.8 bar.
2. If necessary, top up the central heating system.

### 8.3.2 Checking the ionisation current

1. Check the ionisation current at full load and at low load.  
⇒ The value is stable after 1 minute.
2. Clean or replace the ionisation/ignition electrode if the value is lower than 4  $\mu\text{A}$ .

### 8.3.3 Checking the flue gas outlet/air supply connections

1. Check the flue gas outlet and air supply connections for condition and tightness.

Fig.128 Checking flue gas outlet/air supply connections

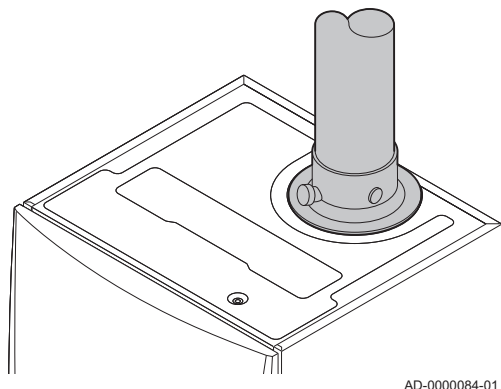
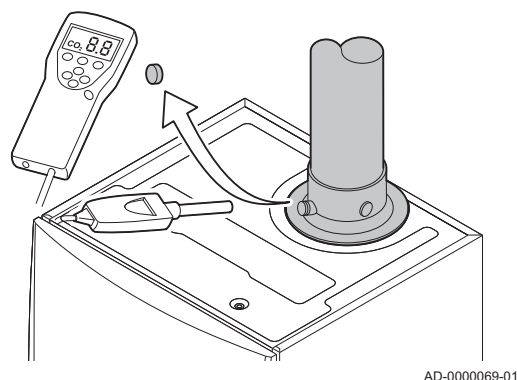


Fig.129 Flue gas measuring point



### 8.3.4 Checking the combustion

Combustion is checked by measuring the O<sub>2</sub> percentage in the flue gas outlet duct.

1. Unscrew the cap from the flue gas measuring point.
2. Insert the probe for the flue gas analyser into the measurement opening.



#### Warning

During measurement, seal the opening around the sensor fully.



#### Caution

The flue gas analyser must have a minimum accuracy of  $\pm 0.25\%$  O<sub>2</sub>.

3. Measure the percentage of O<sub>2</sub> in the flue gases. Take measurements at full load and at part load.



#### Important

Measurements must be taken with the front casing off.

#### ■ Enable full load

1. Press the two keys on the left simultaneously to select chimney sweep mode.  
⇒ The device is now running at part load. Wait until **L:XX°** appears on the display.
2. Press the **+** key twice.  
⇒ The device is now running at full load. Wait until **H:XX°** appears on the display.

Fig.130 Step 1

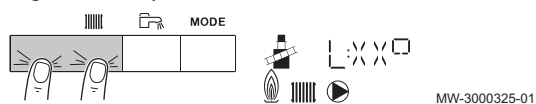


Fig.131 Step 2

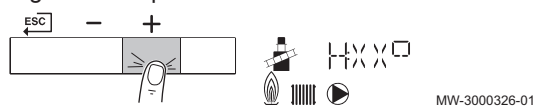
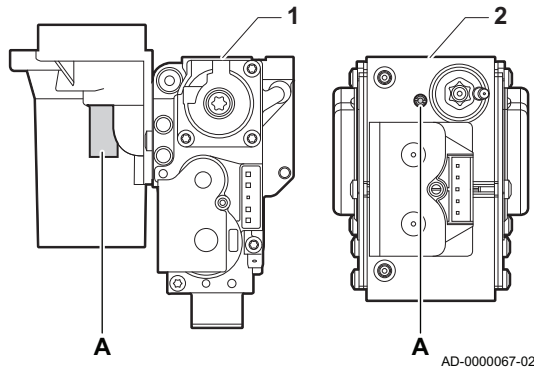


Fig.132 Position of adjusting screw A



■ **Checking/setting values for O<sub>2</sub> at full load**

- 1 AMC Pro 45 - 65 - 90
- 2 AMC Pro 115

1. Measure the percentage of O<sub>2</sub> in the flue gases.
2. Compare the measured value with the checking values in the table.
3. If the measured value is outside of the values given in the table, correct the gas/air ratio.

**Warning** Only a qualified installer may carry out the following operations.

4. Using adjusting screw **A**, adjust the percentage of O<sub>2</sub> for the gas type being used to the nominal value. This should always be inside the highest and lowest setting limit.

Tab.19 Checking/setting values for O<sub>2</sub> at full load for G20 (H gas)

Values at full load for G20 (H gas)	O <sub>2</sub> (%) <sup>(1)</sup>
AMC Pro 45	4,3 - 4,8 <sup>(1)</sup>
AMC Pro 65	4,3 - 4,8 <sup>(1)</sup>
AMC Pro 90	4,3 - 4,7 <sup>(1)</sup>
AMC Pro 115	4,2 - 4,7 <sup>(1)</sup>
(1) Nominal value	

Tab.20 Checking/setting values for O<sub>2</sub> at full load for G20 (H gas) (Switzerland)

Values at full load for G20 (H gas)	O <sub>2</sub> (%) <sup>(1)</sup>
AMC Pro 45	4,3 - 4,8 <sup>(1)</sup>
AMC Pro 65	4,3 - 4,8 <sup>(1)</sup>
AMC Pro 90	4,3 - 4,7 <sup>(1)</sup>
AMC Pro 115	4,2 - 4,7 <sup>(1)</sup>
(1) Nominal value	

Tab.21 Checking/setting values for O<sub>2</sub> at full load for G31 (propane)

Values at full load for G31 (propane)	O <sub>2</sub> (%) <sup>(1)</sup>
AMC Pro 45	4,4 - 4,9 <sup>(1)</sup>
AMC Pro 65	4,6 - 4,9 <sup>(1)</sup>
AMC Pro 90	5,1 - 5,2 <sup>(1)</sup>
AMC Pro 115	4,9 - 5,4 <sup>(1)</sup>
(1) Nominal value	

Tab.22 Checking/setting values for O<sub>2</sub> at full load for G30/G31 (butane/propane)

Values at full load for G30/G31 (butane/propane)	O <sub>2</sub> (%) <sup>(1)</sup>
AMC Pro 45	4,7 - 5,2 <sup>(1)</sup>
AMC Pro 65	4,9 - 5,4 <sup>(1)</sup>
AMC Pro 90	4,9 - 5,4 <sup>(1)</sup>
AMC Pro 115	4,9 - 5,4 <sup>(1)</sup>
(1) Nominal value	

**Caution** The O<sub>2</sub> values at full load must be lower than the O<sub>2</sub> values at part load.

Fig.133 Step 1

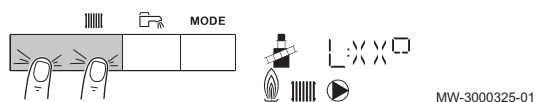
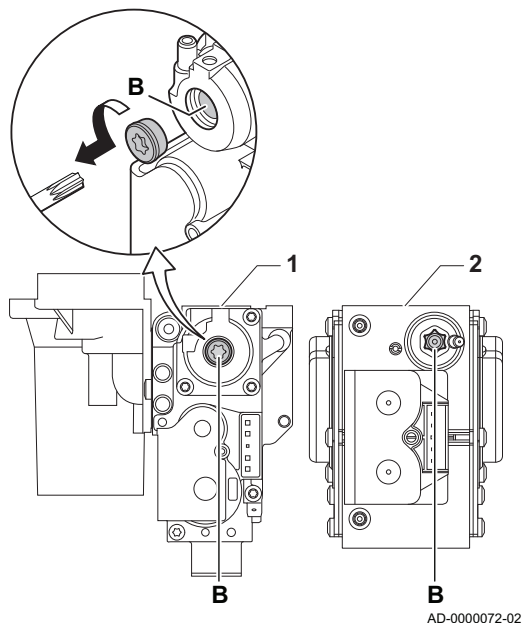


Fig.134 Position of adjusting screw B



### ■ Enable part load

1. Press the two keys on the left simultaneously to select chimney sweep mode.  
⇒ The device is now running at part load. Wait until **L:XX°** appears on the display.
2. If you want to end the part load test, press the **ESC** key to go back to the main display.

### ■ Checking/setting values for O<sub>2</sub> at part load

- 1 AMC Pro 45 - 65 - 90
- 2 AMC Pro 115

1. Measure the percentage of O<sub>2</sub> in the flue gases.
2. Compare the measured value with the checking values in the table.
3. If the measured value is outside of the values given in the table, correct the gas/air ratio.



#### Warning

Only a qualified installer may carry out the following operations.

4. Using adjusting screw **B**, adjust the percentage of O<sub>2</sub> for the gas type being used to the nominal value. This should always be inside the highest and lowest setting limit.
5. Set the boiler back to the normal operating status.

Tab.23 Checking/setting values for O<sub>2</sub> at part load for G20 (H gas)

Values at part load for G20 (H gas)	O <sub>2</sub> (%) <sup>(1)</sup>
AMC Pro 45	5,7 <sup>(1)</sup> - 6,2
AMC Pro 65	4,8 <sup>(1)</sup> - 5,3
AMC Pro 90	5,2 <sup>(1)</sup> - 4,8
AMC Pro 115	5,6 <sup>(1)</sup> - 6,1
(1) Nominal value	

Tab.24 Checking/setting values for O<sub>2</sub> at part load for G20 (H gas) (Switzerland)

Values at part load for G20 (H gas)	O <sub>2</sub> (%) <sup>(1)</sup>
AMC Pro 45	5,7 <sup>(1)</sup> - 6,2
AMC Pro 65	4,8 <sup>(1)</sup> - 5,3
AMC Pro 90	5,2 <sup>(1)</sup> - 4,8
AMC Pro 115	5,6 <sup>(1)</sup> - 6,1
(1) Nominal value	

Tab.25 Checking/setting values for O<sub>2</sub> at part load for G31 (propane)

Values at part load for G31 (propane)	O <sub>2</sub> (%) <sup>(1)</sup>
AMC Pro 45	5,7 <sup>(1)</sup> - 6,2
AMC Pro 65	5,4 <sup>(1)</sup> - 5,7
AMC Pro 90	5,5 <sup>(1)</sup> - 5,8
AMC Pro 115	5,8 <sup>(1)</sup> - 6,3
(1) Nominal value	

Tab.26 Checking/setting values for O<sub>2</sub> at part load for G30/G31 (butane/propane)

Values at part load for G30/G31 (butane/propane)	O <sub>2</sub> (%) <sup>(1)</sup>
AMC Pro 45	5,7 <sup>(1)</sup> - 6,2
AMC Pro 65	5,7 <sup>(1)</sup> - 6,2
AMC Pro 90	5,7 <sup>(1)</sup> - 6,2
AMC Pro 115	5,7 <sup>(1)</sup> - 6,2
(1) Nominal value	

**Caution**

The O<sub>2</sub> values at part load must be higher than the O<sub>2</sub> values at full load.

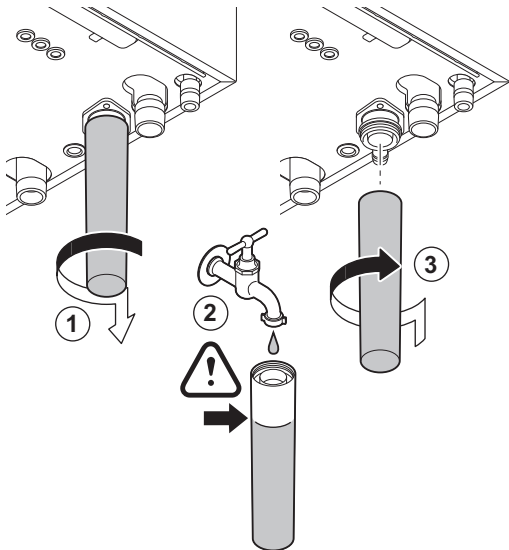
### 8.3.5 Cleaning the siphon

**Danger**

The siphon must always be sufficiently filled with water. This prevents flue gases from entering the room.

1. Dismantle the siphon and clean it.
2. Fill the siphon up with water.
3. Fit the siphon.

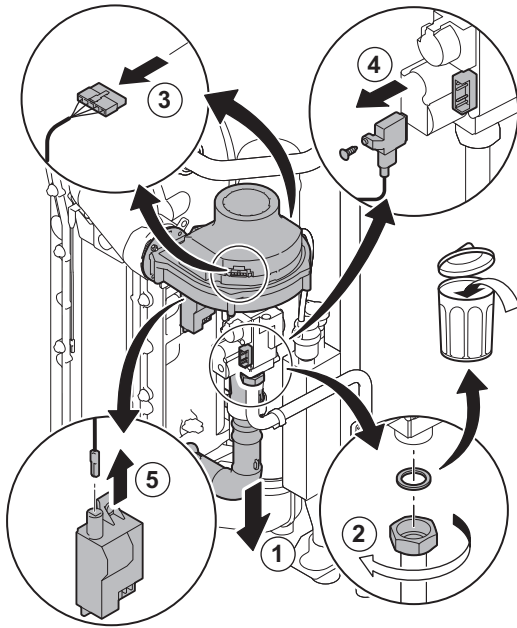
Fig.135 Cleaning the siphon



AD-0000086-01

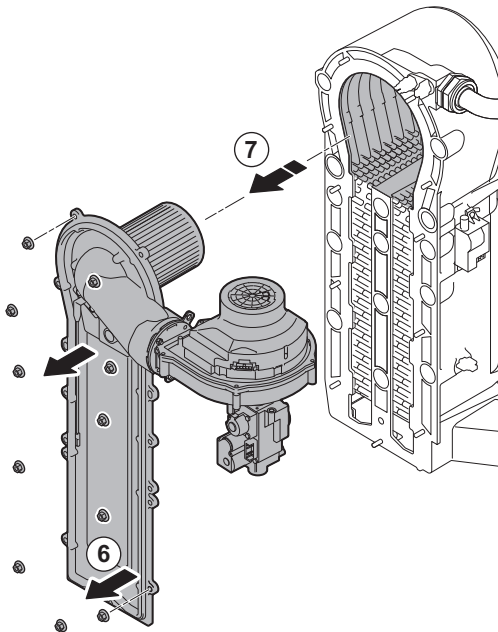
### 8.3.6 Checking the burner and cleaning the heat exchanger

Fig.136 Removing the fan



AD-3001178-01

Fig.137 Removing the front plate, fan and burner

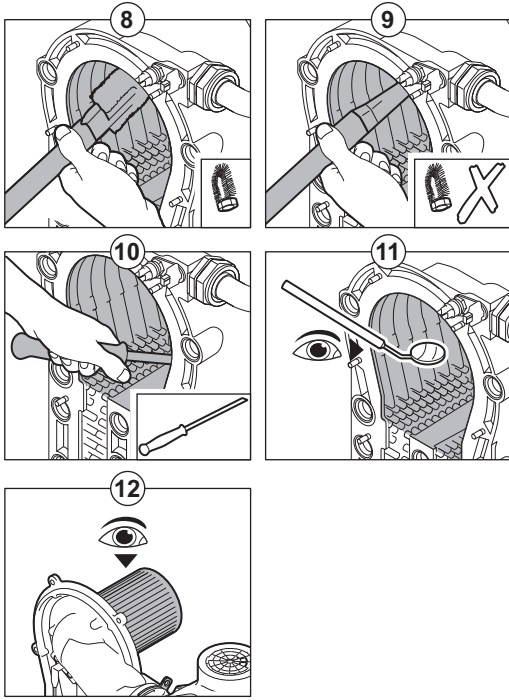


AD-3001179-01

1. Remove the air inlet flue on the venturi.
2. Loosen the gland on the gas valve unit.
3. Disconnect the fan plugs (on the front and rear).
4. Remove the screwed-on plug from the gas valve unit.
5. Remove the ignition electrode plug from the ignition transformer.

6. Remove the front plate from the heat exchanger.
7. Carefully lift the front plate, including the burner and fan, away from the heat exchanger.

Fig.138 Cleaning the heat exchanger



AD-3001180-01

8. Use a vacuum cleaner fitted with a special endpiece (accessory) to clean the top part of the heat exchanger (combustion chamber).
9. Vacuum again without the top brush on the end piece.
10. Clean the lower section of the heat exchanger with the special cleaning blade (accessory).
11. Check (e.g. using a mirror) whether any visible contamination has been left behind. If it has, remove it with the vacuum cleaner.
12. Check that the burner cover of the dismantled burner is free from cracks and/or damage. If not, replace the burner.  
⇒ Servicing the burner is usually not necessary, it is self-cleaning. Use compressed air to carefully blow away any dust.
13. Reassemble the unit in reverse order.



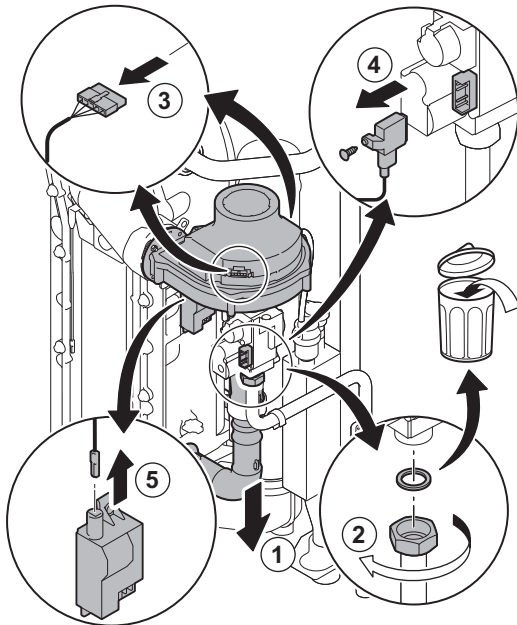
**Caution**

- Remember to reconnect the fan plug.
- Check that the gasket is correctly positioned between the mixing elbow and the heat exchanger (the gasket must lie absolutely flat in the appropriate groove to ensure that no gas can leak).
- Tighten the gland on the gas valve unit with a torque wrench to the firmness of 27,5 Nm.
- Tighten the front plate nuts with a torque wrench to the firmness of 10 Nm.

14. Open the gas supply and switch the power supply to the boiler back on.

**8.3.7 Checking the non-return valve**

Fig.139 Disconnecting the fan

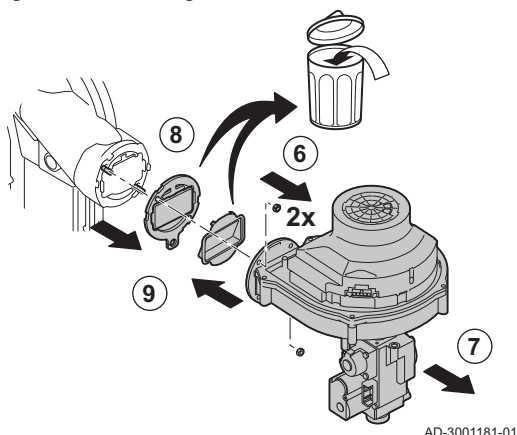


AD-3001178-01

1. Remove the air inlet pipe from the venturi.
2. Unscrew the gland of the gas valve unit.
3. Disconnect the fan plugs (on the front and rear).
4. Remove the screwed-on plug from the gas valve unit.
5. Remove the ignition electrode plug from the ignition transformer.



Fig.140 Checking the non-return valve



AD-3001181-01

6. Dismantle the fan.
7. Remove the fan together with the gas valve unit.
8. Inspect the non-return valve and replace it in the event of a defect or damage, or if the maintenance kit contains a non-return valve.
9. Reassemble in the reverse order.

**Caution**

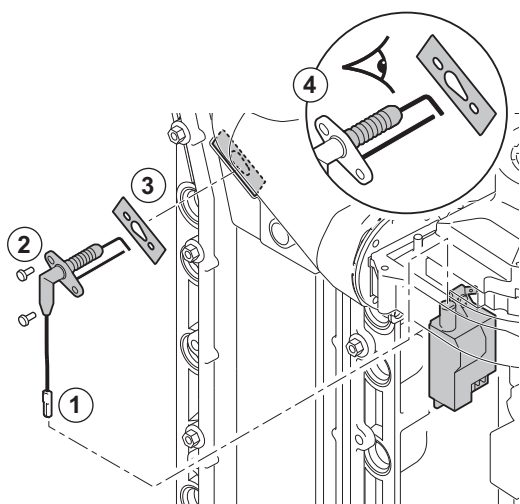
- Remember to reconnect the fan plug.
- Tighten the gland on the gas valve unit with a torque wrench to the firmness of 27,5 Nm.
- Tighten the two fan nuts with a torque wrench to the firmness of 3,8 Nm.

## 8.4 Specific maintenance work

Perform the specific maintenance work if this proves to be necessary following the standard inspection and maintenance work. To conduct the specific maintenance work:

### 8.4.1 Replacing the ionisation/ignition electrode

Fig.141 Replacing the ionisation/ignition electrode



AD-0000088-01

The ionisation/ignition electrode must be replaced if:

- The ionisation current is  $< 4 \mu\text{A}$ .
- The electrode is damaged or worn.
- The electrode is included in the service kit.

1. Remove the plug of the electrode from the ignition transformer.

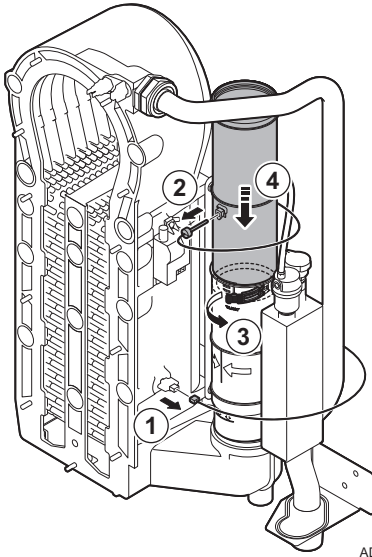
**Important**

The ignition cable is fixed to the electrode and therefore may not be removed.

2. Remove the two screws.
3. Remove the entire component.
4. Fit the new ionisation/ignition electrode.
5. Reassemble the unit in the reverse order.

### 8.4.2 Cleaning the condensate collector

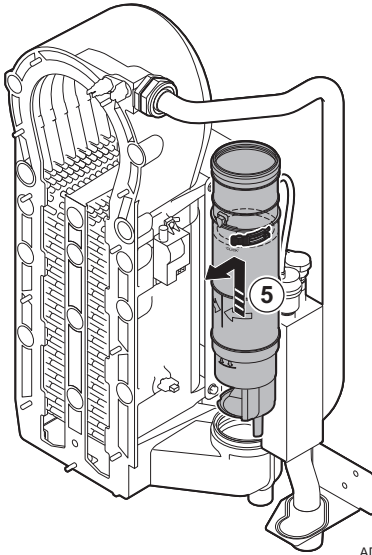
Fig.142 Open clicker flue gas pipe



AD-4000128-01

1. Remove the return sensor connector.
2. Remove the flue gas temperature sensor (if connected)
3. Open the clicker from the flue gas pipe.
4. Push the upper part of the telescopic flue gas pipe down as far as possible.

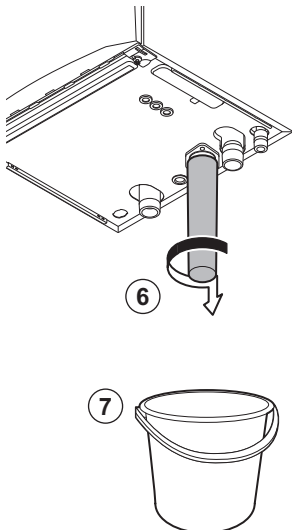
Fig.143 Remove flue gas pipe



AD-4000129-01

5. Pull up the flue gas pipe and remove it.

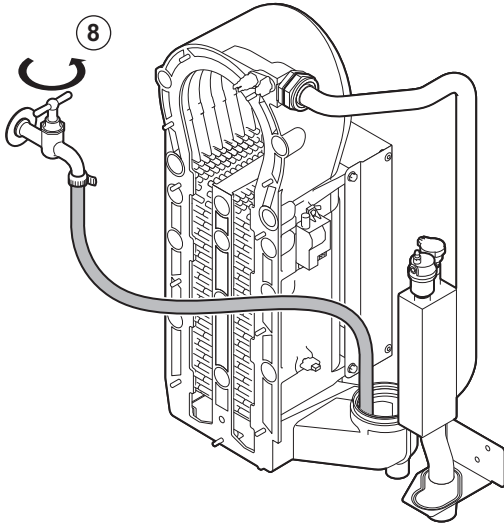
Fig.144 Remove siphon



AD-4000130-01

6. Remove the siphon.
7. Place a bucket under the boiler.

Fig.145 Flush the condensate collector



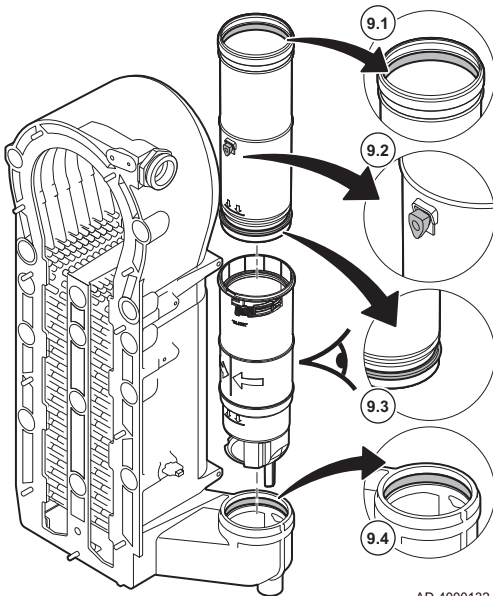
AD-4000131-01

8. Flush the condensate collector gently with water, via the opening of the flue gas pipe.

**Warning**

When flushing, prevent water from getting into the boiler.

Fig.146 Place new gaskets



AD-4000132-02

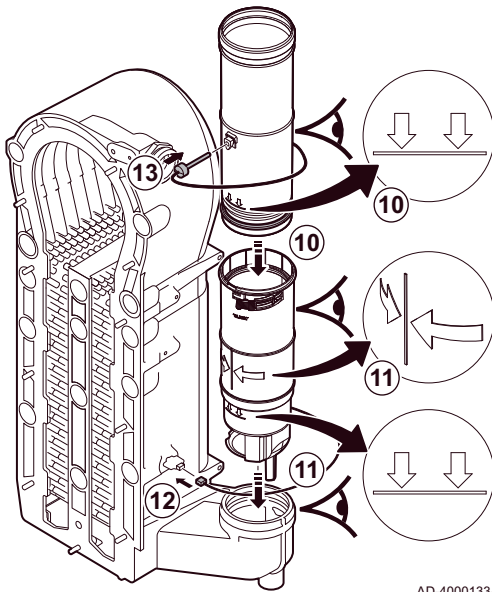
9. Place the new gaskets:

**Warning**

Take care to place the gasket at the clicker level in the bottom ring.

- 9.1. The gasket at the top of the flue gas pipe.
- 9.2. The grommet of the flue gas sensor (if connected).
- 9.3. The gasket in the middle of the flue gas pipe (at the clicker level).
- 9.4. The gasket in the condensate collector.

Fig.147 Re-assemble and place the flue gas pipe



AD-4000133-01

10. Place the upper part of the flue gas pipe into the lower part up to the mark.
11. Place the flue gas pipe with the line between the two arrows facing forward into the condensate collector up to the mark.
12. Place the return sensor connector.
13. Place the flue gas temperature sensor (if connected).

## 8.5 Finalising work

1. Fit all removed parts in the reverse order.



### Caution

During inspection and maintenance operations, always replace all gaskets on the parts removed.

2. Fill the siphon with water.
3. Put the siphon back in place.
4. Carefully open the water tap.
5. Fill the central heating system with water.
6. Vent the central heating system.
7. Top up with more water if necessary.
8. Check the tightness of the gas and water connections.
9. Put the boiler back into operation.
10. Carry out an auto-detect when a control board has been replaced or removed from the boiler.

## 9 Troubleshooting

### 9.1 Error codes

The boiler is fitted with an electronic regulation and control unit. The heart of the control is a microprocessor, which controls and also protects the boiler. In the event of an error, a corresponding code is displayed.

Tab.27 Error codes are displayed at three different levels

Code	Type	Description
A00.00 <sup>(1)</sup>	Warning	The boiler continues to operate but the cause of the warning must be investigated. A warning can change into a blocking or lock-out.
H00.00 <sup>(1)</sup>	Blocking	The boiler starts up again automatically when the cause of the blocking has been rectified. A blocking can become a lock-out.
E00.00 <sup>(1)</sup>	Lock out	The boiler starts up again only when the cause of the lock-out has been rectified and reset manually.

(1) The first letter indicates the type of error.

The meaning of the code can be found in the various error code tables.



#### Important

The error code is needed to find the cause of the error quickly and correctly and for any support from De Dietrich.

#### 9.1.1 Warning

Tab.28 Warning codes

Code	Display text	Description	Solution
A00.32	TOutside Open	Outside temperature sensor is either removed or measures a temperature below range	Outdoor temperature sensor open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
A00.33	TOutside Closed	Outside temperature sensor is either shorted or measures a temperature above range	Outdoor temperature sensor short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
A00.34	TOutside Missing	Outside temperature sensor was expected but not detected	Outdoor sensor not detected: <ul style="list-style-type: none"> <li>• Outdoor sensor is not connected: Connect the sensor</li> <li>• Outdoor sensor is not connected correctly: Connect the sensor correctly</li> </ul>
A00.42	WaterPressureMissing	Water pressure sensor was expected but not detected	Water pressure sensor not detected <ul style="list-style-type: none"> <li>• Water pressure sensor is not connected: connect the sensor</li> <li>• Water pressure sensor is not connected correctly: connect the sensor correctly</li> </ul>

Code	Display text	Description	Solution
A01.23	Poor Combustion	Poor combustion	Configuration error: No flame during operation: <ul style="list-style-type: none"> <li>No ionisation current: <ul style="list-style-type: none"> <li>Purge the gas supply to remove air.</li> <li>Check whether the gas tap is properly open.</li> <li>Checking the gas supply pressure.</li> <li>Check the operation and setting of the gas valve unit.</li> <li>Check that the air inlet and flue gas discharge flues are not blocked.</li> <li>Check that there is no recirculation of flue gases.</li> </ul> </li> </ul>
A02.06	Water Press Warning	Water Pressure Warning active	Water pressure warning: <ul style="list-style-type: none"> <li>Water pressure too low; check the water pressure</li> </ul>
A02.36	Funct device lost	Functional device has been disconnected	SCB not found: <ul style="list-style-type: none"> <li>Bad connection: check the wiring and connectors</li> <li>Faulty SCB: Replace SCB</li> </ul>
A02.37	Uncritic device lost	Uncritical device has been disconnected	SCB not found: <ul style="list-style-type: none"> <li>Bad connection: check the wiring and connectors</li> <li>Faulty SCB: Replace SCB</li> </ul>
A02.45	Full Can Conn Matrix	Full Can Connection Matrix	SCB not found: <ul style="list-style-type: none"> <li>Carry out an auto-detect</li> </ul>
A02.46	Full Can Device Adm	Full Can Device Administration	SCB not found: <ul style="list-style-type: none"> <li>Carry out an auto-detect</li> </ul>
A02.48	Funct Gr Conf Fault	Function Group Configuration Fault	SCB not found: <ul style="list-style-type: none"> <li>Carry out an auto-detect</li> </ul>
A02.49	Failed Init Node	Failed Initialising Node	SCB not found: <ul style="list-style-type: none"> <li>Carry out an auto-detect</li> </ul>
A02.55	Inval or miss SerNR	Invalid or missing device serial number	Contact your supplier.
A02.69	Fair mode active	Fair mode active	Contact your supplier.
A02.76	Memory full	The reserved space in memory for custom parameters value is full. No more user changed possible	Configuration error: <ul style="list-style-type: none"> <li>Reset <b>CN1</b> and <b>CN2</b></li> <li>Faulty CSU: Replace CSU</li> <li>Replace the CU-GH</li> </ul>
A08.02	Shower Time Elapsed	The time reserved for the shower has elapsed	Adjust parameter <b>DP357</b> to the desired shower time.
A10.33	SDhwTopZoneD Open	Domestic Hot Water tank top temperature sensor Zone DHW open	Domestic hot water top temperature sensor open: <ul style="list-style-type: none"> <li>Bad connection: check the wiring and connectors</li> <li>Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>Sensor is not present.</li> <li>Faulty sensor: replace the sensor</li> </ul>
A10.34	SDhwTopZoneD Closed	Domestic Hot Water tank top temperature sensor Zone DHW Closed	Domestic hot water top temperature sensor short-circuited: <ul style="list-style-type: none"> <li>Bad connection: check the wiring and connectors</li> <li>Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>Faulty sensor: replace the sensor</li> </ul>

Code	Display text	Description	Solution
A10.45	RoomTempZoneA miss	Measure of Room Temperature Zone A is missing	Room temperature sensor not detected in zone A: <ul style="list-style-type: none"> <li>Room temperature sensor is not connected: connect the sensor</li> <li>Room temperature sensor is not connected correctly: connect the sensor correctly</li> <li>Faulty sensor: replace the sensor</li> </ul>
A10.46	RoomTempZoneB miss	Measure of Room Temperature Zone B is missing	Room temperature sensor not detected in zone B: <ul style="list-style-type: none"> <li>Room temperature sensor is not connected: connect the sensor</li> <li>Room temperature sensor is not connected correctly: connect the sensor correctly</li> <li>Faulty sensor: replace the sensor</li> </ul>
A10.47	RoomTempZoneC miss	Measure of Room Temperature Zone C is missing	Room temperature sensor not detected in zone C: <ul style="list-style-type: none"> <li>Room temperature sensor is not connected: connect the sensor</li> <li>Room temperature sensor is not connected correctly: connect the sensor correctly</li> <li>Faulty sensor: replace the sensor</li> </ul>
A10.50	T_DHW top D miss	Domestic Hot Water temperature sensor top zone DHW is missing	Domestic hot water temperature sensor not detected in zone DHW: <ul style="list-style-type: none"> <li>Domestic hot water temperature sensor is not connected: connect the sensor</li> <li>Domestic hot water temperature sensor is not connected correctly: connect the sensor correctly</li> <li>Faulty sensor: replace the sensor</li> </ul>
A10.54	Temp. Zone DHW miss.	Temperature sensor Zone DHW is missing	Temperature sensor not detected in zone DHW: <ul style="list-style-type: none"> <li>Temperature sensor is not connected: connect the sensor</li> <li>Temperature sensor is not connected correctly: connect the sensor correctly</li> <li>Faulty sensor: replace the sensor</li> </ul>
A10.56	T_DHW Zone AUX miss	Domestic Hot Water temperature sensor Zone AUX is missing	Domestic hot water temperature sensor not detected in zone AUX: <ul style="list-style-type: none"> <li>Domestic hot water temperature sensor is not connected: connect the sensor</li> <li>Domestic hot water temperature sensor is not connected correctly: connect the sensor correctly</li> <li>Faulty sensor: replace the sensor</li> </ul>

## 9.1.2 Blocking

Tab.29 Blocking codes

Code	Display text	Description	Solution
H00.69	TbufferTankOpen	Buffer Tank temperature sensor is either removed or measures a temperature below range	Buffer tank temperature sensor open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H00.70	TbufferTankClosed	Buffer Tank temperature sensor is either shorted or measures a temperature above range	Buffer tank temperature sensor short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H00.71	TbufferTankTopOpen	Buffer Tank top temperature sensor is either removed or measures a temperature below range	Buffer tank top temperature sensor open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H00.72	TbufferTankTopClosed	Buffer Tank top temperature sensor is either shorted or measures a temperature above range	Buffer tank top temperature sensor short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H00.74	TBufferTankMissing	Buffer Tank temperature sensor was expected but not detected	Buffer tank temperature sensor not detected: <ul style="list-style-type: none"> <li>• Buffer tank temperature sensor is not connected: Connect the sensor</li> <li>• Buffer tank temperature sensor is not connected correctly: Connect the sensor correctly</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H00.75	TBufferTankTop Miss	Buffer Tank Top temperature sensor was expected but not detected	Buffer tank top temperature sensor not detected: <ul style="list-style-type: none"> <li>• Buffer tank top temperature sensor is not connected: Connect the sensor</li> <li>• Buffer tank top temperature sensor is not connected correctly: Connect the sensor correctly</li> </ul>
H00.76	TcascadeFlow Open	Cascade Flow temperature sensor is either removed or measures a temperature below range	Cascade flow temperature sensor open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H00.77	TcascadeFlow Closed	Cascade Flow temperature sensor is either shorted or measures a temperature above range	Cascade flow temperature sensor short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>



Code	Display text	Description	Solution
H00.78	TcascadeFlow missing	Cascade Flow temperature sensor was expected but not detected	Cascade flow temperature sensor not detected: <ul style="list-style-type: none"> <li>• Cascade flow temperature sensor is not connected: Connect the sensor</li> <li>• Cascade flow temperature sensor is not connected correctly: Connect the sensor correctly</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H00.81	RoomTempMissing	Room Temperature sensor was expected but not detected	Room temperature sensor not detected: <ul style="list-style-type: none"> <li>• Room temperature sensor is not connected: Connect the sensor</li> <li>• Room temperature sensor is not connected correctly: Connect the sensor correctly</li> </ul>
H01.00	Comm Error	Communication Error occurred	Communication error with the security kernel: <ul style="list-style-type: none"> <li>• Restart the boiler</li> <li>• Replace the CU-GH</li> </ul>
H01.05	Max Delta TF-TR	Maximum difference between flow temperature and return temperature	Maximum difference between the flow and return temperature exceeded: <ul style="list-style-type: none"> <li>• No flow or insufficient flow: <ul style="list-style-type: none"> <li>- Check the flow (direction, pump, valves)</li> <li>- Check the water pressure</li> <li>- Check the cleanliness of the heat exchanger</li> </ul> </li> <li>• Sensor error: <ul style="list-style-type: none"> <li>- Check that the sensors are operating correctly</li> <li>- Check that the sensor has been fitted properly</li> </ul> </li> </ul>
H01.08	CH Temp Grad. Level3	Maximum CH temperature gradient level3 exceeded	Maximum heat exchanger temperature increase has been exceeded: <ul style="list-style-type: none"> <li>• No flow or insufficient flow: <ul style="list-style-type: none"> <li>- Check the circulation (direction, pump, valves)</li> <li>- Check the water pressure</li> <li>- Check the cleanliness of the heat exchanger</li> <li>- Check that the central heating system has been correctly vented to remove air</li> </ul> </li> <li>• Sensor error: <ul style="list-style-type: none"> <li>- Check that the sensors are operating correctly</li> <li>- Check that the sensor has been fitted properly</li> </ul> </li> </ul>
H01.14	Max Tflow	Flow temperature has exceeded the maximum operating value	Flow temperature sensor above normal range: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• No flow or insufficient flow: <ul style="list-style-type: none"> <li>- Check the circulation (direction, pump, valves)</li> <li>- Check the water pressure</li> <li>- Check the cleanliness of the heat exchanger</li> </ul> </li> </ul>
H01.15	Max Tflue Gas	Flue gas temperature has exceeded the maximum operating value	Maximum flue gas temperature exceeded: <ul style="list-style-type: none"> <li>• Check the flue gas outlet system</li> <li>• Check the heat exchanger to ensure that the flue gas side is not clogged</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H02.00	Reset In Progress	Reset In Progress	Reset procedure active: <ul style="list-style-type: none"> <li>• No action</li> </ul>
H02.02	Wait Config Number	Waiting For Configuration Number	Configuration error or unknown configuration number: <ul style="list-style-type: none"> <li>• Reset <b>CN1</b> and <b>CN2</b></li> </ul>

Code	Display text	Description	Solution
H02.03	Conf Error	Configuration Error	Configuration error or unknown configuration number: <ul style="list-style-type: none"> <li>• Reset <b>CN1</b> and <b>CN2</b></li> </ul>
H02.04	Parameter Error	Parameter Error	Factory settings incorrect: <ul style="list-style-type: none"> <li>• Parameters are not correct:  - Restart the boiler  - Reset <b>CN1</b> and <b>CN2</b>  - Replace the CU-GH PCB</li> </ul>
H02.05	CSU CU mismatch	CSU does not match CU type	Configuration error: <ul style="list-style-type: none"> <li>• Reset <b>CN1</b> and <b>CN2</b></li> </ul>
H02.09	Partial block	Partial blocking of the device recognized	Blocking input active or frost protection active: <ul style="list-style-type: none"> <li>• External cause: remove external cause</li> <li>• Wrong parameter set: check the parameters</li> <li>• Bad connection: check the connection</li> </ul>
H02.10	Full Block	Full blocking of the device recognized	Blocking input is active (without frost protection): <ul style="list-style-type: none"> <li>• External cause: remove external cause</li> <li>• Wrong parameter set: check the parameters</li> <li>• Bad connection: check the connection</li> </ul>
H02.12	Release Signal	Release Signal input of the Control Unit from device external environment	Waiting time release signal has elapsed: <ul style="list-style-type: none"> <li>• External cause: remove external cause</li> <li>• Wrong parameter set: check the parameters</li> <li>• Bad connection: check the connection</li> </ul>
H02.16	Int CSU Timeout	Internal CSU Timeout	Configuration error: <ul style="list-style-type: none"> <li>• Reset <b>CN1</b> and <b>CN2</b></li> <li>• Replace the PCB</li> </ul>
H02.36	Funct device lost	Functional device has been disconnected	Communication error with the SCB PCB: <ul style="list-style-type: none"> <li>• Bad connection with BUS: check the wiring.</li> <li>• No PCB: reconnect PCB or retrieve from memory using auto-detect.</li> </ul>
H02.40	Function unavailable	Function unavailable	Contact your supplier
H02.45	Full Can Conn Matrix	Full Can Connection Matrix	SCB not found: <ul style="list-style-type: none"> <li>• Carry out an auto-detect</li> </ul>
H02.46	Full Can Device Adm	Full Can Device Administration	SCB not found: <ul style="list-style-type: none"> <li>• Carry out an auto-detect</li> </ul>
H02.47	Failed Conn Funct Gr	Failed Connecting Function Groups	Function group not found: <ul style="list-style-type: none"> <li>• Carry out an auto-detect</li> <li>• Restart the boiler</li> <li>• Replace the CU-GH</li> </ul>
H02.48	Funct Gr Conf Fault	Function Group Configuration Fault	SCB not found: <ul style="list-style-type: none"> <li>• Carry out an auto-detect</li> </ul>
H02.49	Failed Init Node	Failed Initialising Node	SCB not found: <ul style="list-style-type: none"> <li>• Carry out an auto-detect</li> </ul>
H02.55	Inval or miss SerNR	Invalid or missing device serial number	Replace the CU-GH PCB
H02.61	Unsupported function	Zone A doesn't support the selected function	Zone A function setting is not correct or is not allowed on this circuit: <ul style="list-style-type: none"> <li>• Check the setting of parameter <b>CP020</b>.</li> </ul>
H02.62	Unsupported function	Zone B doesn't support the selected function	Zone B function setting is not correct or is not allowed on this circuit: <ul style="list-style-type: none"> <li>• Check the setting of parameter <b>CP021</b>.</li> </ul>
H02.63	Unsupported function	Zone C doesn't support the selected function	Zone C function setting is not correct or is not allowed on this circuit: <ul style="list-style-type: none"> <li>• Check the setting of parameter <b>CP023</b>.</li> </ul>

Code	Display text	Description	Solution
H02.64	Unsupported function	Zone D doesn't support the selected function	Zone C function (DHW) setting is not correct or is not allowed on this circuit: <ul style="list-style-type: none"> <li>• Check the setting of parameter <b>CP022</b>.</li> </ul>
H02.65	Unsupported function	Zone E doesn't support the selected function	Zone E function (AUX) setting is not correct or is not allowed on this circuit: <ul style="list-style-type: none"> <li>• Check the setting of parameter <b>CP024</b>.</li> </ul>
H02.66	TAS not connected	The anti corrosion protection (TAS) of the Domestic Hot Water tank is not connected	Corrosion protection anode (TAS) not detected: <ul style="list-style-type: none"> <li>• Anode is not connected: Connect the anode</li> <li>• Anode is not connected correctly: Connect the anode correctly</li> </ul>
H02.67	TAS short-circuit	The anti corrosion protection (TAS) of the Domestic Hot Water tank is shortend	Corrosion protection anode (TAS) missing or short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H02.70	HRU test error	External heat recovery unit test failed	Check the external heat recovery system.
H02.79	Appliance lost S Bus	There is no appliance present on system bus (cascade).	S-Bus connector devices missing: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted connectors: check that the connectors has been correctly fitted</li> <li>• End connectors (with resistor) are missing or badly connected: check wiring and connectors</li> <li>• Check if connected devices are activated</li> </ul>
H03.00	Parameter Error	Safety parameters level 2, 3, 4 are not correct or missing	Parameter error: security kernel <ul style="list-style-type: none"> <li>• Restart the boiler</li> <li>• Replace the CU-GH</li> </ul>
H03.01	CU to GVC data error	No valid data from CU to GVC received	Communication error with the CU-GH: <ul style="list-style-type: none"> <li>• Restart the boiler</li> </ul>
H03.02	Flame loss detected	Measured ionisation current is below limit	No flame during operation: <ul style="list-style-type: none"> <li>• No ionisation current: <ul style="list-style-type: none"> <li>- Vent the gas supply to remove air</li> <li>- Check that the gas valve is fully opened</li> <li>- Check the gas supply pressure</li> <li>- Check the operation and setting of the gas valve unit</li> <li>- Check that the air supply inlet and flue gas outlet are not blocked</li> <li>- Check that there is no recirculation of flue gases</li> </ul> </li> </ul>
H03.05	Internal blocking	Gas Valve Control internal blocking occurred	Security kernel error: <ul style="list-style-type: none"> <li>• Restart the boiler</li> <li>• Replace the CU-GH</li> </ul>
H03.17	Safety check	Periodically safety check ongoing	<ul style="list-style-type: none"> <li>• Restart the boiler</li> <li>• Replace the CU-GH</li> </ul>
H10.00	T Flow Zone A Open	Flow temperature sensor Zone A Open	Flow temperature sensor zone A open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>

Code	Display text	Description	Solution
H10.01	T Flow Zone A Closed	Flow temperature sensor Zone A Closed	Flow temperature sensor zone A short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.02	T Dhw Zone A Open	Domestic Hot Water temperature sensor Zone A Open	Domestic hot water temperature sensor zone A open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.03	T Dhw Zone A Closed	Domestic Hot Water temperature sensor Zone A Closed	Domestic hot water temperature sensor zone A short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> <li>• When using thermostat instead of sensor: parameter <b>CP500</b> must be set to off (=disable)</li> </ul>
H10.04	TSwimmPoolZoneA Open	Swimming Pool Temperature Sensor Zone A Open	Swimming pool temperature sensor A open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.05	TSwimmPoolZoneAClose	Swimming Pool Temperature Sensor Zone A Closed	Swimming pool temperature sensor zone A short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.09	T Flow Zone B Open	Flow temperature sensor Zone B Open	Flow temperature sensor zone B open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.10	T Flow Zone B Closed	Flow temperature sensor Zone B Closed	Flow temperature sensor zone B short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.11	T Dhw Zone B Open	Domestic Hot Water Temperature Sensor Zone B Open	Domestic hot water temperature sensor zone B open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>

Code	Display text	Description	Solution
H10.12	T Dhw Zone B Closed	Domestic Hot Water temperature sensor Zone B Closed	Domestic hot water temperature sensor zone B short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> <li>• When using thermostat instead of sensor: parameter <b>CP501</b> must be set to off (=disable)</li> </ul>
H10.13	TSwimmPoolZoneB Open	Swimming Pool Temperature Sensor Zone B Open	Swimming pool temperature sensor B open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.14	TSwimmPoolZoneBClose	Swimming Pool Temperature Sensor Zone B Closed	Swimming pool temperature sensor zone B short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.18	T Flow Zone C Open	Flow temperature sensor Zone C Open	Flow temperature sensor zone C open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.19	T Flow Zone C Closed	Flow temperature sensor Zone C Closed	Flow temperature sensor zone C short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.20	T Dhw Zone C Open	Domestic Hot Water Temperature Sensor Zone C Open	Domestic hot water temperature sensor zone C open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.21	T Dhw Zone C Closed	Domestic Hot Water temperature sensor Zone C Closed	Domestic hot water temperature sensor zone C short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> <li>• When using thermostat instead of sensor: parameter <b>CP503</b> must be set to off (=disable)</li> </ul>

Code	Display text	Description	Solution
H10.22	TSwimmPoolZoneC Open	Swimming Pool Temperature Sensor Zone C Open	Swimming pool temperature sensor C open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.23	TSwimmPoolZoneCClose	Swimming Pool Temperature Sensor Zone C Closed	Swimming pool temperature sensor zone C short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.27	T Flow Zone DHW open	Flow temperature sensor Zone DHW open	Flow temperature sensor zone DHW open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.28	Sens. ZoneDHW closed	Flow temperature sensor Zone DHW closed	Flow temperature sensor zone DHW short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.29	Sensor Zone DHW open	Temperature sensor Zone DHW open	Domestic hot water temperature sensor zone DHW open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.30	T Zone DHW closed	Domestic Hot Water temperature sensor Zone DHW closed	Domestic hot water temperature sensor zone DHW short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> <li>• When using thermostat instead of sensor: parameter <b>CP502</b> must be set to off (=disable)</li> </ul>
H10.36	Sensor Zone AUX open	Flow temperature sensor Zone AUX open	Flow temperature sensor zone AUX open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.37	Sens. ZoneAUX closed	Flow temperature sensor ZoneAUX closed	Flow temperature sensor zone AUX short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>

Code	Display text	Description	Solution
H10.38	T Dhw Zone AUX open	Domestic Hot Water temperature sensor Zone AUX open	Domestic hot water temperature sensor zone AUX open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Sensor is not present.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
H10.39	Sens. ZoneAUX Closed	Domestic Hot Water temperature sensor Zone AUX closed	Domestic hot water temperature sensor zone AUX short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> <li>• When using thermostat instead of sensor: parameter <b>CP504</b> must be set to off (=disable)</li> </ul>

### 9.1.3 Locking

Tab.30 Locking codes

Code	Display text	Description	Solution
E00.04	TReturn Open	Return temperature sensor is either removed or measures a temperature below range	Return temperature sensor open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
E00.05	TReturn Closed	Return temperature sensor is either shorted or measures a temperature above range	Return temperature sensor short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
E00.06	TReturn Missing	Return temperature sensor was expected but not detected	No connection to temperature return sensor: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors.</li> <li>• Faulty sensor: replace the sensor</li> </ul>
E00.07	dTReturn Too High	Return temperature difference is too large	Difference between the flow and return temperatures too great: <ul style="list-style-type: none"> <li>• No circulation: <ul style="list-style-type: none"> <li>- Vent the central heating system to remove air</li> <li>- Check the water pressure</li> <li>- If present: check the boiler type parameter setting</li> <li>- Check the circulation (direction, pump, valves)</li> <li>- Check that the heating pump is operating correctly</li> <li>- Check the cleanliness of the heat exchanger</li> </ul> </li> <li>• Sensor not connected or incorrectly connected: <ul style="list-style-type: none"> <li>- Check that the sensors are operating correctly</li> <li>- Check that the sensor has been fitted properly</li> </ul> </li> <li>• Faulty sensor: replace the sensor if necessary</li> </ul>



Code	Display text	Description	Solution
E00.16	DHW sensor Open	Domestic Hot Water tank temperature sensor is either removed or measures a temperature below range	Calorifier sensor open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Faulty sensor: replace the sensor</li> </ul>
E00.17	DHW sensor Closed	Domestic Hot Water tank temperature sensor is either shorted or measures a temperature above range	Calorifier sensor short-circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Faulty sensor: replace the sensor</li> </ul>
E01.04	5x Flame Loss Error	5x Error of unintended Flame Loss occurrence	Flame loss occurs 5 times: <ul style="list-style-type: none"> <li>• Vent the gas supply to remove air</li> <li>• Check that the gas valve is fully opened</li> <li>• Check the gas supply pressure</li> <li>• Check the operation and setting of the gas valve unit</li> <li>• Check that the air supply inlet and flue gas outlet are not blocked</li> <li>• Check that there is no recirculation of flue gases</li> </ul>
E01.11	Fan Out Of Range	Fan speed has exceeded normal operating range	Fan fault: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors.</li> <li>• Faulty fan: replace the fan</li> <li>• Fan operates when it should not be operating: check for excessive chimney draught</li> </ul>
E01.12	Return Higher Flow	Return temperature has a higher temperature value than the flow temperature	Flow and return reversed: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Water circulation in wrong direction: check the circulation (direction, pump, valves)</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Malfunctioning sensor: check the Ohmic value of the sensor</li> <li>• Faulty sensor: replace the sensor</li> </ul>
E01.24	Combustion Error	Several combustion errors occurs with 24 hours	Low ionisation current: <ul style="list-style-type: none"> <li>• Vent the gas supply to remove air.</li> <li>• Check that the gas valve is fully opened.</li> <li>• Check the gas supply pressure.</li> <li>• Check the operation and setting of the gas valve unit.</li> <li>• Check that the air supply inlet and flue gas outlet are not blocked.</li> <li>• Check that there is no recirculation of flue gases.</li> </ul>
E02.13	Blocking Input	Blocking Input of the Control Unit from device external environment	Blocking input is active: <ul style="list-style-type: none"> <li>• External cause: remove external cause</li> <li>• Wrong parameter set: check the parameters</li> </ul>
E02.15	Ext CSU Timeout	External CSU Timeout	CSU time out: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Faulty CSU: Replace CSU</li> </ul>
E02.17	GVC CommTimeout	Gas Valve Control unit communication has exceeded feedback time	Communication error with the security kernel: <ul style="list-style-type: none"> <li>• Restart the boiler</li> <li>• Replace the CU-GH</li> </ul>
E02.35	Safety device lost	Safety critical device has been disconnected	Communication fault <ul style="list-style-type: none"> <li>• Carry out an auto-detect</li> </ul>



Code	Display text	Description	Solution
E02.47	Failed Conn Funct Gr	Failed Connecting Function Groups	Function group not found: <ul style="list-style-type: none"> <li>• Carry out an auto-detect</li> <li>• Restart the boiler</li> <li>• Replace the CU-GH</li> </ul>
E04.00	Parameter error	Safety parameters Level 5 are not correct or missing	Replace the CU-GH.
E04.01	TFlow Closed	Flow temperature sensor is either shorted or measuring a temperature above range	Flow temperature sensor short circuited: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Incorrectly fitted sensor: check that the sensor has been correctly fitted</li> <li>• Faulty sensor: replace the sensor</li> </ul>
E04.02	TFlow Open	Flow temperature sensor is either removed or measuring a temperature below range	Flow temperature sensor open: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Faulty sensor: replace the sensor</li> </ul>
E04.03	Max Flow temp	Measured flow temperature above safety limit	No flow or insufficient flow: <ul style="list-style-type: none"> <li>• Check the circulation (direction, pump, valves)</li> <li>• Check the water pressure</li> <li>• Check the cleanliness of the heat exchanger</li> </ul>
E04.07	TFlow Sensor	Deviation in flow sensor 1 and flow sensor 2 detected	Flow temperature sensor deviation: <ul style="list-style-type: none"> <li>• Bad connection: check the connection</li> <li>• Faulty sensor: replace the sensor</li> </ul>
E04.10	Unsuccessful start	5 Unsuccessful burners starts detected	Five failed burner starts: <ul style="list-style-type: none"> <li>• No ignition spark: <ul style="list-style-type: none"> <li>- Check the wiring between the CU-GH and the ignition transformer</li> <li>- Check the ionisation/ignition electrode</li> <li>- Check breakdown to earth</li> <li>- Check the condition of the burner cover</li> <li>- Check the earthing</li> <li>- Replace the CU-GH</li> </ul> </li> <li>• Ignition spark but no flame: <ul style="list-style-type: none"> <li>- Vent the gas pipes to remove air</li> <li>- Check that the air supply inlet and flue gas outlet are not blocked</li> <li>- Check that the gas valve is fully opened</li> <li>- Check the gas supply pressure</li> <li>- Check the operation and setting of the gas valve unit</li> <li>- Check the wiring on the gas valve unit</li> <li>- Replace the CU-GH</li> </ul> </li> <li>• Flame present, but ionisation has failed or is inadequate: <ul style="list-style-type: none"> <li>- Check that the gas valve is fully opened</li> <li>- Check the gas supply pressure</li> <li>- Check the ionisation/ignition electrode</li> <li>- Check the earthing</li> <li>- Check the wiring on the ionisation/ignition electrode.</li> </ul> </li> </ul>
E04.12	False flame	False flame detected before burner start	False flame signal: <ul style="list-style-type: none"> <li>• The burner remains very hot: Set the O<sub>2</sub></li> <li>• Ionisation current measured but no flame should be present: check the ionisation/ignition electrode</li> <li>• Faulty gas valve: replace the gas valve</li> <li>• Faulty ignition transformer: replace the ignition transformer</li> </ul>

Code	Display text	Description	Solution
E04.13	Fan	Fan speed has exceeded normal operating range	Fan fault: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors.</li> <li>• Fan operates when it should not be operating: check for excessive chimney draught</li> <li>• Faulty fan: replace the fan</li> </ul>
E04.17	GasValve Driver Err.	The driver for the gas valve is broken	Gas valve unit fault: <ul style="list-style-type: none"> <li>• Bad connection: check the wiring and connectors</li> <li>• Faulty gas valve unit: Replace the gas valve unit</li> </ul>
E04.23	Internal Error	Gas Valve Control internal locking	<ul style="list-style-type: none"> <li>• Restart the boiler</li> <li>• Replace the CU-GH</li> </ul>

## 9.2 Error history

The control panel includes an error memory in which is stored a history of the last 32 errors. Details of the boiler when the error occurred can be read out. For example;

- status
- sub-status
- flow temperature
- return temperature

These details and others can contribute to the error solution.

### 9.2.1 Reading out the Error memory

1. Navigate to the Error menu.
2. Press the **←** key to open the menu.
3. Keep pressing the **+** key until the required device, control PCB or zone is displayed.
4. Press the **←** key to confirm the selection.
5. Press the **←** key to view the error messages.  
XX is the number of stored error messages.
6. Press the **+** or **-** key to scroll through the list of messages.
7. Press the **←** key to view details of the message.

Fig.148 Step 2



Fig.149 Step 3

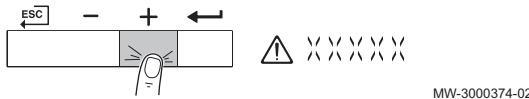


Fig.150 Step 4

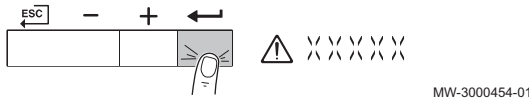


Fig.151 Step 5

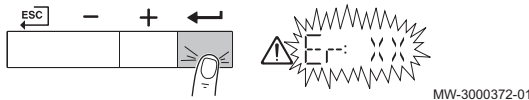


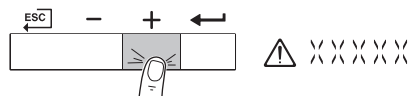
Fig.152 Step 6



Fig.153 Step 7



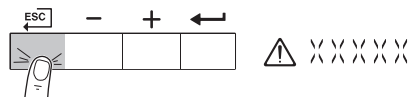
Fig.154 Step 8



MW-3000374-02

8. Press the **+** or **-** key to scroll through the details.

Fig.155 Step 9



MW-3000319-02

9. Press the **ESC** key multiple times to go back to the main display.

### 9.2.2 Clearing the error memory

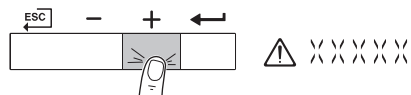
Fig.156 Step 2



MW-3000317-01

1. Navigate to the Error menu.
2. Press the **←** key to open the menu.

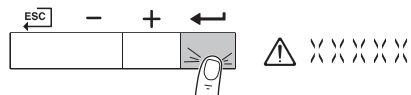
Fig.157 Step 3



MW-3000374-02

3. Keep pressing the **+** key until the required device, control PCB or zone is displayed.

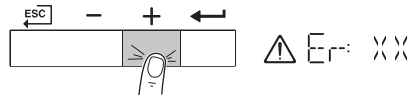
Fig.158 Step 4



MW-3000454-01

4. Press the **←** key to confirm the selection.

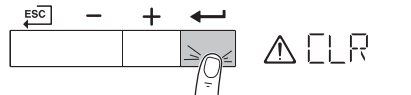
Fig.159 Step 5



MW-3000375-01

5. Keep pressing the **+** key until the clear error memory menu is displayed.

Fig.160 Step 6



MW-3000376-01

6. Press the **←** key to delete the errors from the error memory.

Fig.161 Step 7



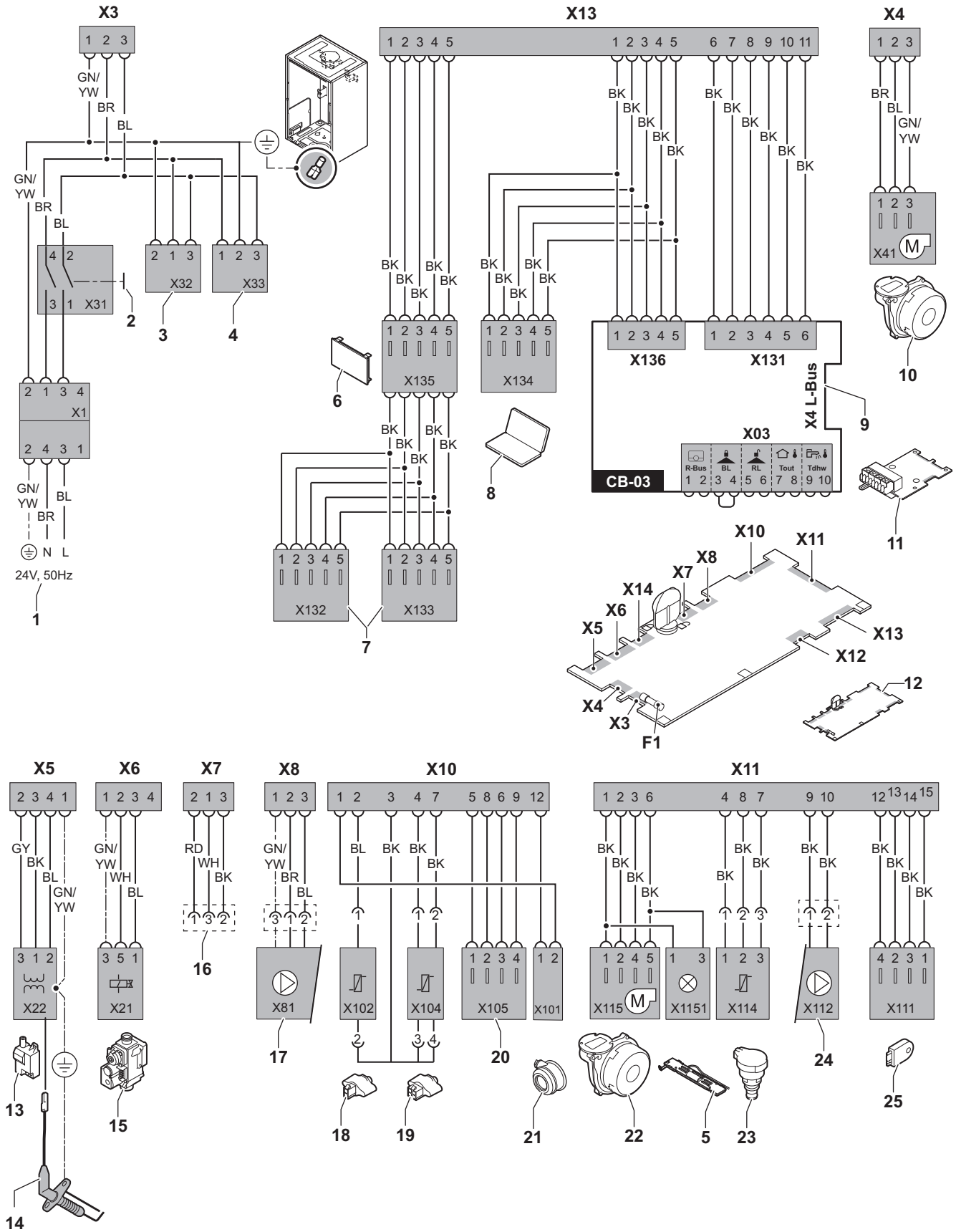
MW-3000440-01

7. Press the **ESC** key to go back to the main display.

# 10 Technical specifications

## 10.1 Electrical diagram

Fig.162 Electrical diagram



- |                                                                       |                                                                         |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>1</b> Power supply                                                 | <b>17</b> Power supply for pump                                         |
| <b>2</b> On/off switch                                                | <b>18</b> Return sensor (NTC 10 k $\Omega$ /25°C)                       |
| <b>3</b> Power supply for SCB-xx control PCBs                         | <b>19</b> Flow sensor (NTC 10 k $\Omega$ /25°C)                         |
| <b>4</b> Power supply for IF-01 control PCB                           | <b>20</b> Connection point for flue gas sensor (PTC <20 $\Omega$ /25°C) |
| <b>5</b> Interior lighting                                            | <b>21</b> Connection point for air pressure differential switch         |
| <b>6</b> Display                                                      | <b>22</b> Fan control                                                   |
| <b>7</b> Connection points for additional SCB-xx control PCBs         | <b>23</b> Pressure sensor                                               |
| <b>8</b> Service connection                                           | <b>24</b> Control for PWM pump                                          |
| <b>9</b> L-Bus connection for SCB-xx control PCBs                     | <b>25</b> Storage information (CSU)                                     |
| <b>10</b> Fan supply                                                  | <b>BK</b> Black                                                         |
| <b>11</b> Standard CB-03 control PCB                                  | <b>BL</b> Blue                                                          |
| <b>12</b> CU-GH08 control unit                                        | <b>BR</b> Brown                                                         |
| <b>13</b> Ignition transformer                                        | <b>GN</b> Green                                                         |
| <b>14</b> Ionisation/ignition electrode                               | <b>GY</b> Grey                                                          |
| <b>15</b> Combined gas valve unit                                     | <b>RD</b> Red                                                           |
| <b>16</b> Connection to CB-08 PCB (for 24 V or 230 V three-way valve) | <b>WH</b> White                                                         |
|                                                                       | <b>YW</b> Yellow                                                        |

## 11 Spare parts

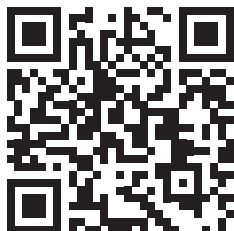
### 11.1 General

---

Only replace defective or worn boiler parts with original parts or recommended parts.

Information about available parts can be found via the website for professionals.

Fig.163 <http://pieces.dedietrich-thermique.fr>



MW-3000456-01



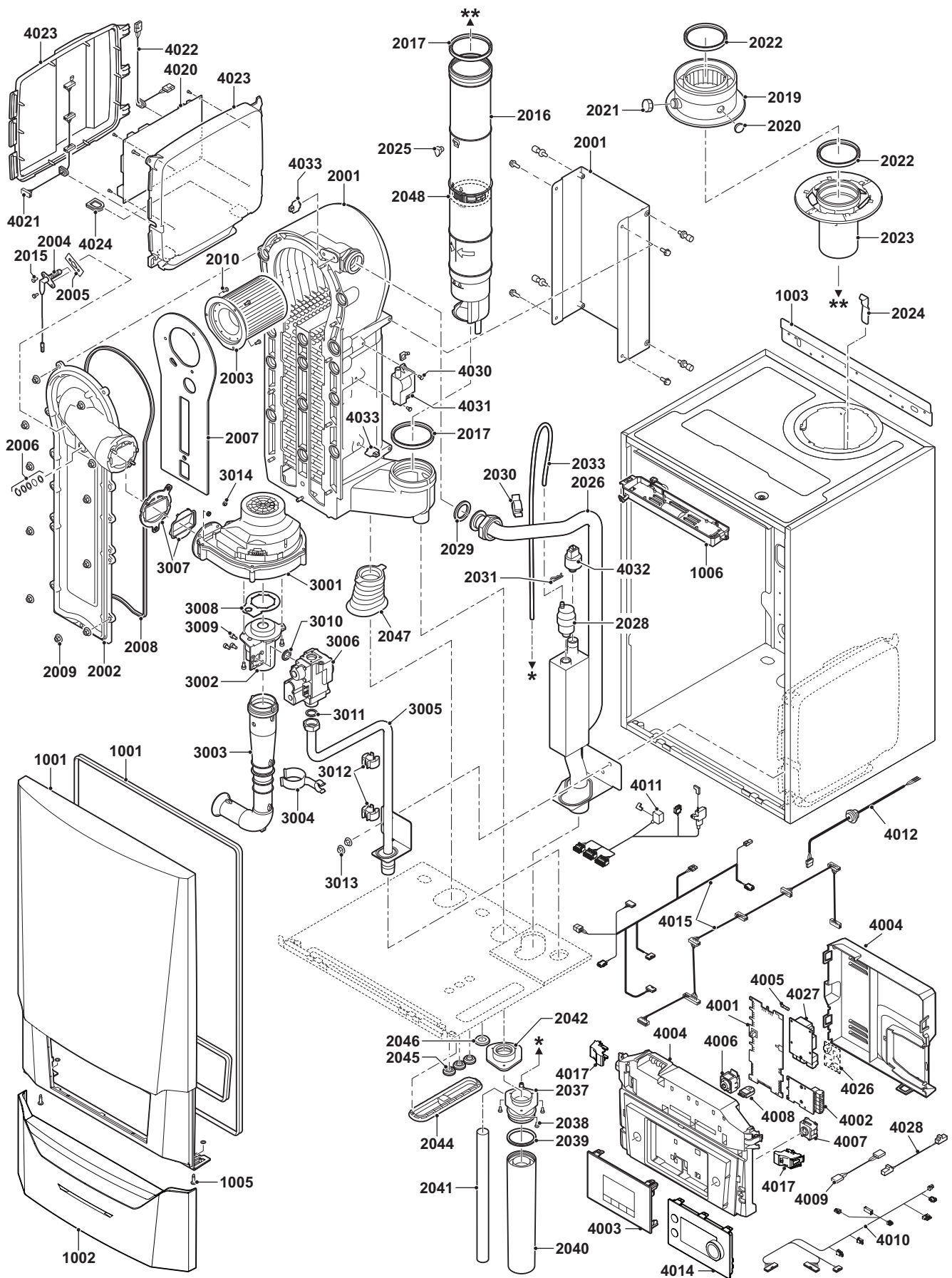
**Important**

When ordering a part, you must state the part number of the required part.

When ordering a part, you must state the part number that appears in the list beside the position number of the required part.

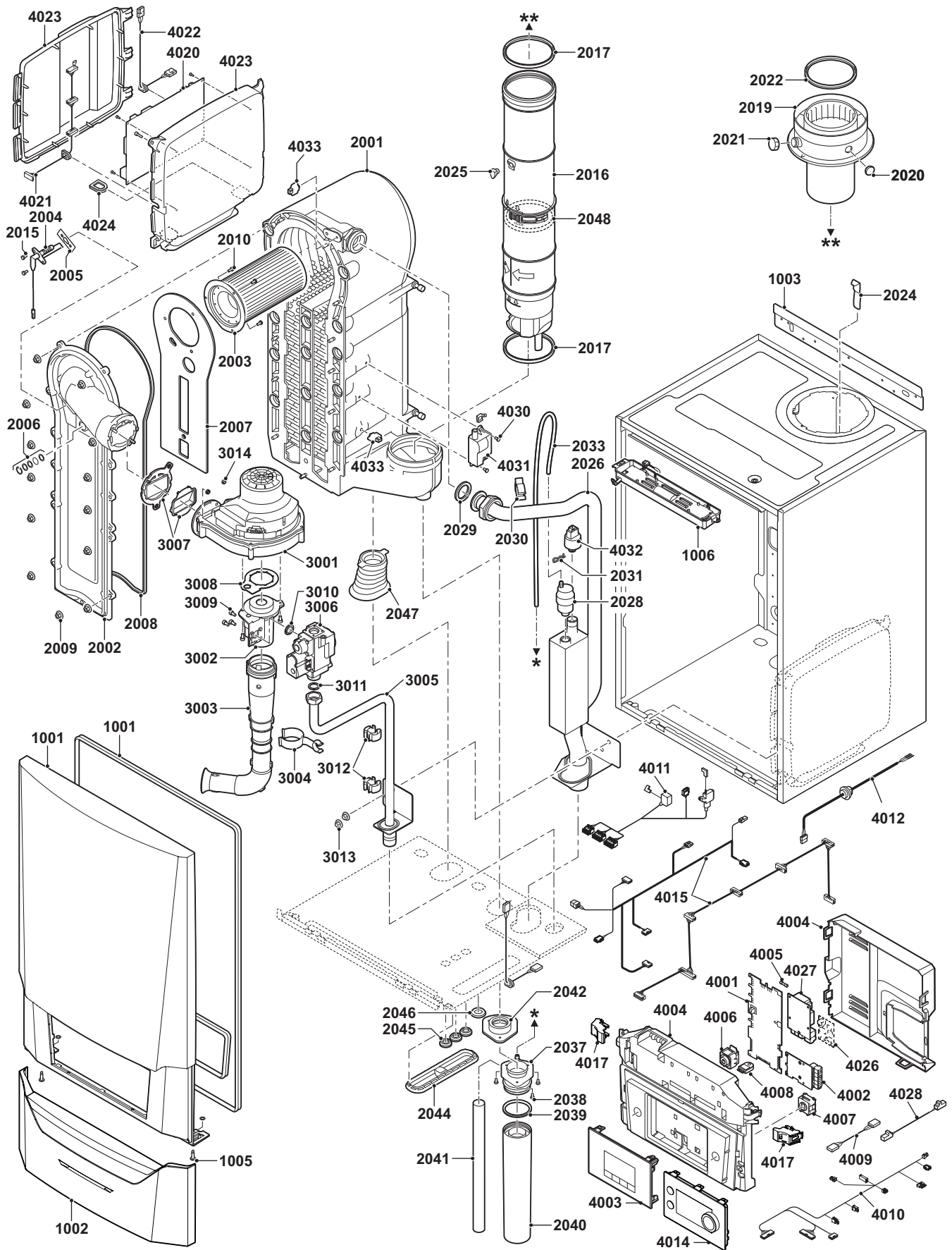
## 11.2 Parts

Fig.164 AMC Pro 45



AD-0801814-03

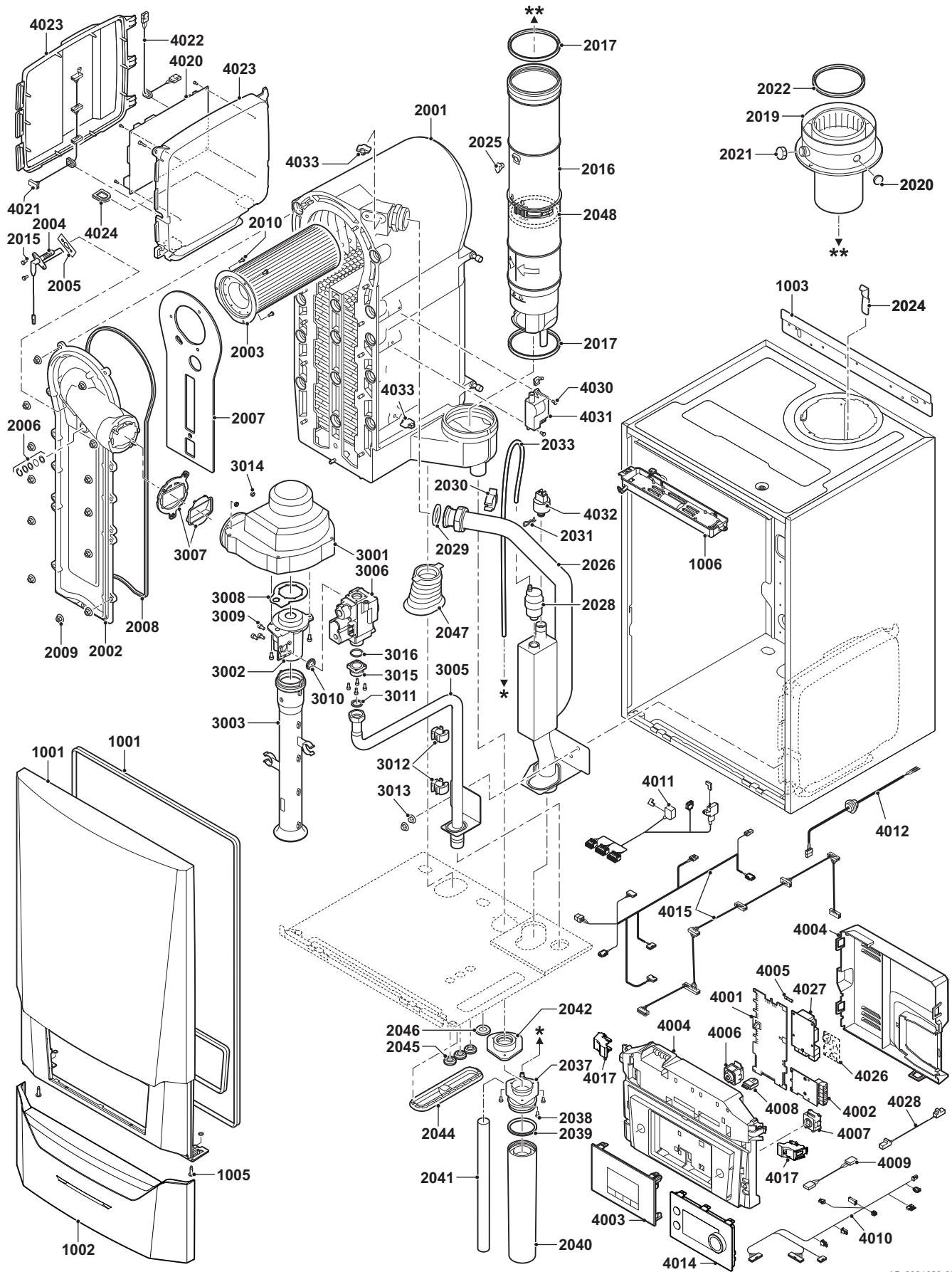
Fig.165 AMC Pro 65



AD-0801821-03



Fig.166 AMC Pro 90



AD-0801828-03



## 11.3 Spare part list

Tab.31 Casing

Markers	Code no.	Description	45	65	90	115
1001	7699575	Casing front panel	x	x	x	x
1002	7699596	Cover Drop Down	x	x	x	x
1003	S101517	Wall bracket	x	x	x	x
1005	S101403	Stud Quarter Retainer	x	x	x	x
1006	7702357	Boiler light 24V	x	x	x	x

Tab.32 Heat exchanger and burner

Markers	Code no.	Description	45	65	90	115
2001	7699613	Heat exchanger 45 kW	x			
2001	7699615	Heat exchanger 65 kW		x		
2001	7699614	Heat exchanger 90 - 115 kW			x	x
2002	S101564	Inspection hatch heat exchanger	x	x	x	x
2003	S54753	Burner Furigas 45 kW	x			
2003	S54754	Burner Furigas 65 kW		x		
2003	S57477	Burner Furigas 90 – 115 kW			x	x
2004	7702138	Electrode Ignition/Ionisation	x	x	x	x
2005	S53489	Gasket for electrode (10 Pcs.)	x	x	x	x
2006	S59118	Glass inspection set	x	x	x	x
2007	S54731	Insulation Front Plate Heat Exchanger	x	x	x	x
2008	S57241	Gasket Front Plate	x	x	x	x
2009	S54755	Nut Flange M6 (20 Pcs.)	x	x	x	x
2010	S100052	Screw M4 x 10 (20 Pcs.)	x	x	x	x
2015	S48950	Screw M4 x 10 (50 Pcs.)	x	x	x	x
2016	7700494	Flue Gas Pipe Ø 80 mm.	x			
2016	7700499	Flue Gas Pipe Ø 100 mm.		x	x	x
2017	7701758	Sealing Ring Ø 80 (5 Pcs.)	x			
2017	7701752	Sealing Ring Flue Ø 100 (5 Pcs.)		x	x	x
2019	7602132	Flue Gas Discharge Adapter 80/125 mm.	x			
2019	S101627	Flue Gas Discharge Adapter 100/150 mm.		x	x	x
2020	S62233	Plug For Air Inlet Measure Point (5 Pcs.)	x	x	x	x
2021	S62232	Screw Cap Flue Gas Measure Point (5 Pcs.)	x	x	x	x
2022	S100855	Sealing Ring Ø 80 mm (5 Pcs.)	x			
2022	S101643	Sealing Ring Ø 100 mm (5 Pcs.)		x	x	x
2023	S101567	Flue Connection Ø 80 mm	x			
2024	S100901	Fixing Strip Heat Exchanger	x	x	x	x
2025	S62288	Tulle For Flue Gas Pipe	x	x	x	x
2026	S101568	Flow Pipe Central Heating	x	x		
2026	S101572	Flow Pipe Assembly			x	x
2028	7669770	Automatic air vent	x	x	x	x
2029	S100737	Sealing ring 44 x 32 x 4 (5 Pcs.)	x	x	x	x
2030	S101576	Wire clamp 28 - 35 (5 Pcs.)	x	x	x	x
2031	7605371	Hairpin spring 9.4 mm (5 Pcs.)	x	x	x	x
2033	S101570	Hose silicone 8 x 2 x 740 mm	x	x	x	x
2037	S101558	Syphon assembly (upper)	x	x	x	x
2038	S14254	Sheet-metal screw 4,2 x 9,5 (20 Pcs.)	x	x	x	x
2039	S101580	Sealing ring Ø 60 mm	x	x	x	x
2040	S101559	Siphon cup	x	x	x	x
2041	S101606	Hose of syphon	x	x	x	x

Markers	Code no.	Description	45	65	90	115
2042	S101581	Sealing ring syphon	x	x	x	x
2044	S101298	Blind cap Scu	x	x	x	x
2044	S100869	Sealant strip Scu	x	x	x	x
2045	S62727	Grommet 20 mm (15 Pcs.)	x	x	x	x
2046	S101607	Grommet 25 x 35 x 2 mm (5 Pcs.)	x	x	x	x
2047	S101605	Sealant central heating return	x	x	x	x
2048	7701759	Sealing ring flue Ø 80 (5 Pcs.)	x			
2048	7701753	Sealing ring flue Ø 100 (5 Pcs.)		x	x	x

Tab.33 Gas/air

Markers	Code no.	Description	45	65	90	115
3001	S101725	Fan 30 - 45 kW	x			
3001	S101726	Fan 65 – 90 kW		x	x	
3001	S100036	Fan 115 kW				x
3002	S54765	Venturi 30 - 45 kW	x			
3002	S54766	Venturi 65 kW		x		
3002	S57488	Venturi 95 kW			x	
3002	S101595	Venturi 115 kW				x
3003	S101543	Air inlet damper 30 – 65 kW	x	x		
3003	S101520	Air inlet damper 90 kW			x	
3003	S101578	Air inlet damper 115 kW				x
3004	S101590	Clamp air inlet silencer	x	x		
3005	S101569	Gas supply pipe 30 – 65 kW	x	x		
3005	S101573	Gas supply pipe 90 kW			x	
3005	S101515	Gas supply pipe 115 kW				x
3006	S101596	Gas valve unit 30 – 65 kW 230 Volt	x	x		
3006	S101597	Gas valve unit 90 kW 230 Volt			x	
3006	7606393	Gas valve unit 90 kW 230 Volt Propane			x	
3006	S101510	Gas valve unit 115 kW 230 Volt				x
3006	7614500	Coil for gas valve				x
3007	S101565	Seal 83 mm with valve (45 - 115 kW)	x	x	x	x
3008	S54777	Gasket for venturi (5 Pcs.)	x	x	x	
3008	S100058	O-Ring 70 x 3 mm (5 Pcs.)				x
3009	S48512	Screw M5 x 10 (10 Pcs.)	x	x	x	
3009	S100468	Screw M5 x 12 (10 Pcs.)				x
3010	S101591	Gasket set 45 - 65 kW	x	x		
3010	S101592	Gasket set 90 kW			x	
3010	S101593	Gasket set 115 kW				x
3010	S100363	Gasket 33 x 2 mm (10 Pcs.)				x
3011	S56155	Gasket 23.8 x 17,2 x 2 mm (20 Pcs.)	x	x	x	
3011	S56156	Gasket 30 x 21 x 3 mm (10 Pcs.)				x
3012	S101519	Wire clamp (5 Pcs.)	x	x	x	x
3013	S54755	Nut flange M6 (20 Pcs.)	x	x	x	x
3014	S100055	Nut M5 (20 Pcs.)	x	x	x	x
3015	S57827	Flange for gasblock			x	
3016	S101631	Nozzle venturi				x
3016	S57828	O-Ring gas pipe Ø 26,8 x 22 x 2,5 mm (5 Pcs.)			x	
3017	S100054	Screw Din912 M6 x 16 (20 Pcs.)				x
3018	S101664	Gasket set venturi-nozzle				x

Tab.34 Electronic system

Markers	Code no.	Description	45	65	90	115
4001	7726804	PCB CU-GH08	x	x	x	x
4002	7665228	PCB CB-03	x	x	x	x
4003	7673393	HMI MK2 (2.0) grey	x	x	x	x
4004	7700060	Control box grey	x	x	x	x
4005	7701771	Fuse glass 2.5 Amp (5 Pcs.)	x	x	x	x
4006	7700062	Switch On/Off	x	x	x	x
4007	7700064	Service connector	x	x	x	x
4008	7633327	Configuration Storage Unit CSU-01	x	x	x	x
4009	S101554	Cable for pump PCU	x	x	x	x
4010	7701705	Cable set ELV	x	x	x	x
4011	7701699	Cable set 230V (45 - 90 kW)	x	x	x	
4011	7701700	Cable set 230V (115 kW)				x
4012	S100845	Cable power supply (L = 1500 mm)	x	x	x	x
4014	7712175	Control Panel MK3 sw 1.28 grey	x	x	x	x
4015	7665234	Cable set (Control box intern)	x	x	x	x
4017	s101514	Clamp (2 Pcs.)	x	x	x	x
4021	7690425	Cable BUS Interface	x	x	x	x
4022	S101555	Cable power for SCU	x	x	x	x
4023	S101651	Electronic extension box (SCU box)	x	x	x	x
4024	S100862	Tulle Scu (5 Pcs.)	x	x	x	x
4027	S100763	Print Interface 0-10V (IF-01)	x	x	x	x
4028	7701709	Cable IF-01	x	x	x	x
4030	S101509	Screw 7985 M4 x 8 (5 Pcs.)	x	x	x	x
4031	7624619	Ignition transformer	x	x	x	x
4032	S101632	Water pressure sensor	x	x	x	x
4033	7623837	Sensors Set Double NTC 10K (1 Pcs.) and NTC 10K (2 Pcs.)	x	x	x	x

Tab.35 Miscellaneous

Markers	Code no.	Description	45	65	90	115
	7609044	PWM pump power cable	x	x	x	x
	7609017	PWM pump cable	x	x	x	x
	7702097	Service set A 30 - 45 kW	x			
	7702098	Service set B 30 - 45 kW	x			
	7702099	Service set C 30 - 45 kW	x			
	7710047	Service set A 55 - 115 kW		x	x	x
	7710048	Service set B 55 - 115 kW		x	x	x
	7710049	Service set C 55 - 115 kW		x	x	x
	7692707	Outdoor temperature sensor (AF60)	x	x	x	x
	7692707	Connector outdoor temperature sensor	x	x	x	x



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