



Installation and User Manual

High-efficiency wall-hung gas boiler

Quinta Ace

30 - 45 - 55 - 65 - 90 - 115

HMI T-control

Dear Customer,

Thank you very much for buying this appliance.

Please read through the manual carefully before using the product, and keep it in a safe place for later reference. In order to ensure continued safe and efficient operation we recommend that the product is serviced regularly. Our service and customer service organisation can assist with this.

We hope you enjoy years of problem-free operation with the product.

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1 Safety

1.1 General safety instructions

1.1.1 For the installer

**Danger**

If you smell gas:

1. Do not use naked flames, do not smoke and do not operate electrical contacts or switches (doorbell, lighting, motor, lift etc.).
2. Shut off the gas supply.
3. Open the windows.
4. Trace possible leaks and seal them off immediately.
5. If the leak is upstream of the gas meter, notify the gas company.

**Danger**

If you smell flue gases:

1. Switch the boiler off.
2. Open the windows.
3. Trace possible leaks and seal them off immediately.

**Caution**

After maintenance or repair work, check the entire heating installation to ensure that there are no leaks.

1.1.2 For the end user

**Danger**

If you smell gas:

1. Do not use naked flames, do not smoke and do not operate electrical contacts or switches (doorbell, lighting, motor, lift etc.).
2. Shut off the gas supply.
3. Open the windows.
4. Report any leaks immediately.
5. Evacuate the property.
6. Contact a qualified installer.

**Danger**

If you smell flue gases:

1. Switch the boiler off.
2. Open the windows.
3. Report any leaks immediately.
4. Evacuate the property.
5. Contact a qualified installer.

**Warning**

Do not touch the flue gas pipes. Depending on the boiler settings, the temperature of the flue gas pipes can rise to over 60°C.

**Warning**

Do not touch radiators for long periods. Depending on the boiler settings, the temperature of the radiators can rise to over 60°C.

**Warning**

Be careful when using the domestic hot water. Depending on the boiler settings, the temperature of domestic hot water can rise to over 65°C.

**Warning**

The use of the boiler and the installation by you as the end-user must be limited to the operations described in this manual. All other actions may only be undertaken by a qualified fitter/engineer.

**Warning**

The condensate drain must not be modified or sealed. If a condensate neutralisation system is used, the system must be cleaned regularly in accordance with the instructions provided by the manufacturer.

**Caution**

Ensure that the boiler is regularly serviced. Contact a qualified installer or arrange a maintenance contract for the servicing of the boiler.

**Caution**

Only genuine spare parts may be used.

**Important**

Regularly check for the presence of water and pressure in the heating installation.

1.2 Recommendations

**Danger**

This appliance can be used by children aged eight and above and people with a physical, sensory or mental disability, or with a lack of experience and knowledge, provided they are supervised and instructed in how to use the appliance in a safe manner and understand the associated dangers. Children must not be allowed to play with the appliance. Cleaning and user maintenance should not be carried out by children without adult supervision.

**Warning**

Installation and maintenance of the boiler must be carried out by a qualified installer in accordance with local and national regulations.

**Warning**

The installation and maintenance of the boiler must be undertaken by a qualified installer in accordance with the information in the supplied manual, doing otherwise may result in dangerous situations and/or bodily injury.

**Warning**

Removal and disposal of the boiler must be carried out by a qualified installer in accordance with local and national regulations.

**Warning**

If the mains lead is damaged, it must be replaced by the original manufacturer, the manufacturer's dealer or another suitably skilled person to prevent hazardous situations from arising.

**Warning**

Always disconnect the mains supply and close the main gas tap when working on the boiler.

**Warning**

Check the entire system for leaks after maintenance and servicing work.

**Danger**

For safety reasons, we recommend fitting smoke alarms at suitable places and a CO detector near the appliance.

**Caution**

- Make sure the boiler can be reached at all times.
- The boiler must be installed in a frost-free area.
- If the power cord is permanently connected, you must always install a main bipolar switch with an opening gap of at least 3 mm (BS EN 60335-1).
- Drain the boiler and central heating system if you are not going to use your home for a long time and there is a chance of frost.
- The frost protection does not work if the boiler is out of operation.
- The boiler protection only protects the boiler, not the system.
- Check the water pressure in the system regularly. If the water pressure is lower than 0.8 bar, the system must be topped up (recommended water pressure between 1.5 and 2.0 bar).

**Important**

Keep this document near to the boiler.



Important

Only remove the casing for maintenance and repair operations. Refit all panels when maintenance work and servicing are complete.



Important

Instruction and warning labels must never be removed or covered and must be clearly legible throughout the entire service life of the boiler. Damaged or illegible instructions and warning stickers must be replaced immediately.



Important

Modifications to the boiler require the written approval of **Remeha**.

1.3 Liabilities

1.3.1 Manufacturer's liability

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.

1.3.2 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.

1.3.3 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 General

This manual describes the installation, use and maintenance of the Quinta Ace boiler. This manual is part of all the documentation supplied with the boiler.

2.2 Additional documentation

The following documentation is available in addition to this manual:

- Cascade description
- Service manual
- Water quality instructions

2.3 Symbols used in the manual

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



Danger

Risk of dangerous situations that may result in serious personal injury.



Danger of electric shock

Risk of electric shock that may result in serious personal injury.



Warning

Risk of dangerous situations that may result in minor personal injury.



Caution

Risk of material damage.



Important

Please note: important information.

The symbols mentioned below are of lower importance, but they can help you navigate or give useful information.



See

Reference to other manuals or pages in this manual.



Helpful information or extra guidance.



Direct menu navigation, confirmations will not be shown. Use if you are familiar with the system.

3 Description of the product

3.1 General description

The Quinta Ace 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.

All Quinta Ace boiler models are supplied without a pump.

Take the boiler resistance and system resistance into account when selecting a pump.



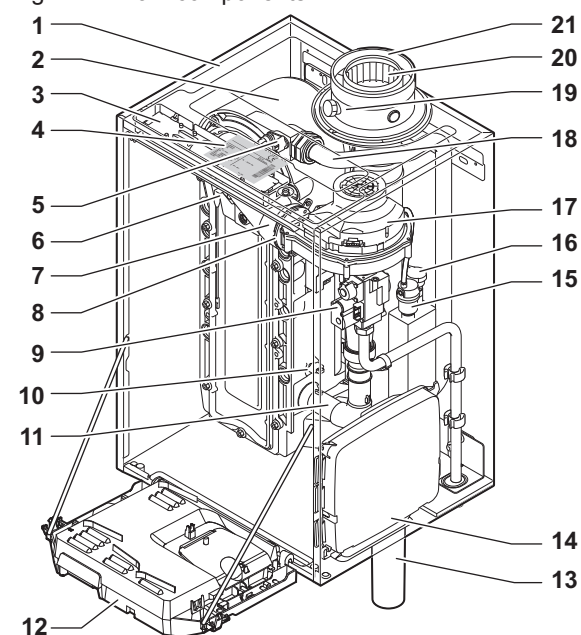
Caution

The pump may have a maximum input of 200 W. Use an auxiliary relay for a pump with greater power.

If possible, install the pump directly under the boiler on the return connection.

3.2 Main components

Fig.1 Main components



- 1 Casing/air box
- 2 Heat exchanger (CH)
- 3 Interior light
- 4 Type plate
- 5 Flow sensor
- 6 Ionisation/ignition electrode
- 7 Mixing tube
- 8 Non-return valve
- 9 Combined gas valve unit
- 10 Return sensor
- 11 Air intake silencer
- 12 Instrument box
- 13 Siphon

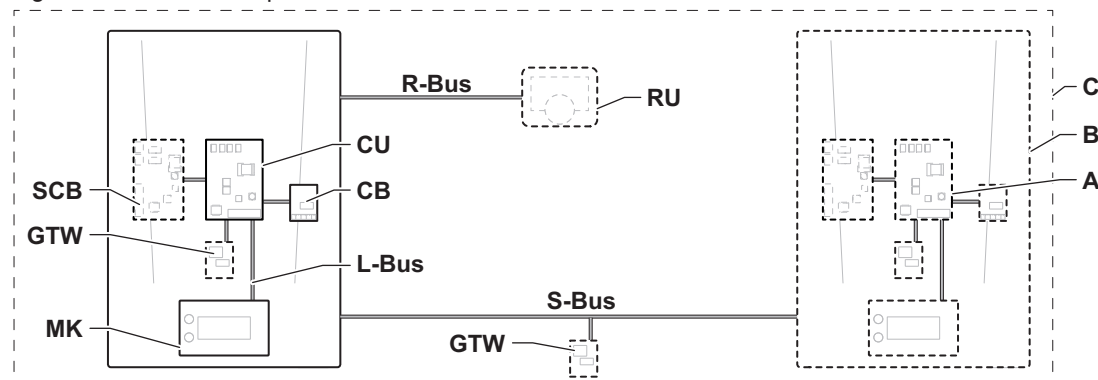
- 14 Expansion box for the control PCBs
(= accessory)
- 15 Automatic air vent
- 16 Hydraulic pressure sensor
- 17 Fan
- 18 Supply line
- 19 Flue gas measuring point
- 20 Flue gas discharge
- 21 Air supply
- ▶ (III) Heating circuit flow
- (III) ▶ Heating circuit return

AD-4000070-03

3.3 Introduction to the e-Smart controls platform

The Quinta Ace boiler is equipped with the e-Smart controls platform. This is a modular system, and offers compatibility and connectivity between all products that make use of the same platform.

Fig.2 Generic example



AD-3001366-02

Tab.1 Components in the example

Item	Description	Function
CU	Control Unit: Control unit	The control unit handles all basic functionality of the appliance.
CB	Connection Board: Connection PCB	The connection PCB provides easy access to all connectors of the control unit.
SCB	Smart Control Board: Expansion PCB	An expansion PCB provides extra functionality, like an internal calorifier or multiple zones.
GTW	Gateway: Conversion PCB	A gateway can be fitted to an appliance or system, to provide one of the following: <ul style="list-style-type: none"> • Extra (wireless) connectivity • Service connections • Communication with other platforms
MK	Control panel: Control panel and display	The control panel is the user interface to the appliance.
RU	Room Unit: Room unit (for example, a thermostat)	A room unit measures the temperature in a reference room.
L-Bus	Local Bus: Connection between devices	The local bus provides communication between devices.
S-Bus	System Bus: Connection between appliances	The system bus provides communication between appliances.
R-Bus	Room unit Bus: Connection to a room unit	The room unit bus provides communication to a room unit.
A	Device	A device is a PCB, control panel or a room unit.
B	Appliance	An appliance is a set of devices connected via the same L-Bus
C	System	A system is a set of appliances connected via the same S-Bus

Tab.2 Specific devices delivered with the Quinta Ace boiler

Name visible in display	Software version	Description	Function
CU-GH08	1.12	Control unit CU-GH08	The CU-GH08 control unit handles all basic functionality of the Quinta Ace boiler.
MK3	1.85	Control panel HMI T-control	The HMI T-control is the user interface to the Quinta Ace boiler.
SCB-01	1.3	Expansion PCB SCB-01	The SCB-01 provides a 0-10 V connection for a PWM system pump and two potential-free contacts for status notification.

3.4 Standard delivery

The delivery includes:

- The boiler, with:
 - Power supply cable
 - Expansion PCB **SCB-01**
 - PCB **IF-01**
- Suspension bracket with fasteners for wall mounting
- Siphon with condensate drain hose
- Documentation set, with:
 - Sticker: Adjusted for ...

This manual only deals with the standard scope of supply. For the installation or mounting of any accessories supplied with the boiler, please refer to the mounting instructions delivered with the accessories in question.

3.5 Accessories and options

Various accessories can be obtained for the boiler.



Important

Contact us for more information.

4 Preparation of installation

4.1 Installation regulations



Important

The Quinta Ace must be installed by a qualified installer in accordance with local and national regulations.



Warning

The installer must be registered with Gas Safe and have the correct ACS qualifications.



Important

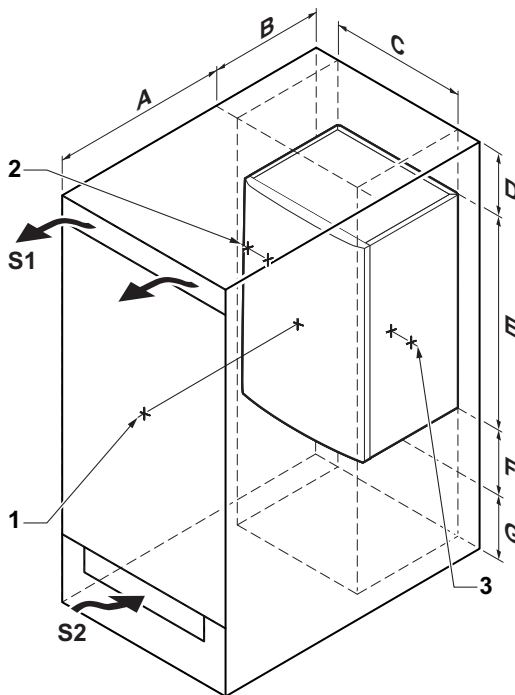
Practical guidelines - see the latest version.

4.2 Choice of the location

When choosing the best installation location, consider:

- The regulations.
- The required installation space.
- The required space around the boiler for good access and to facilitate maintenance.
- The required space under the boiler for the installation and removal of the siphon.
- The permitted position of the flue gas outlet and/or air supply opening.
- The evenness of the surface.

Fig.3 Installation area



AD-3001371-01

- A ≥ 1000 mm
- B 500 mm
- C 500 mm
- D ≥ 400 mm
- E 750 mm
- F 350 mm (siphon)
- G ≥ 250 mm

If the boiler is installed in a closed cupboard, the minimum distance between the boiler and the walls of the cupboard must be taken into account.

- 1 ≥ 1000 mm (front)
- 2 ≥ 15 mm (left-hand side)
- 3 ≥ 15 mm (right-hand side)

Also allow for openings to prevent the following hazards:

- Accumulation of gas
- Heating of the casing

Minimum cross section of the openings: $S1 + S2 = 150 \text{ cm}^2$

**Danger**

It is forbidden to store, even temporarily, combustible products and substances in the boiler or near the boiler.

**Warning**

- Fix the appliance to a solid wall capable of bearing the weight of the boiler when full of water and fully equipped.
- Do not place the appliance above a heat source or a cooking appliance.
- Do not locate the boiler in direct or indirect sunlight.

**Caution**

- The boiler must be installed in a frost-free area.
- An earthed electrical connection must be available close to the boiler.
- A connection to the drain must be present for the condensate drain close to the boiler.

4.3 Requirements for water connections

- Before installation, check that the connections meet the set requirements.
- Carry out any welding work required at a safe distance from the boiler.
- If using synthetic pipes, follow the manufacturer's instructions.

4.3.1 Requirements for CH water connections

- When fitting service shut-off valves, position the filling and drain valve, the expansion vessel and the safety valve between the shut-off valve and the boiler.
- Carry out any welding work required at a safe distance from the boiler or before the boiler is fitted.
- For filling and tapping the boiler, install a filling and drain valve in the system, preferably in the return.
- Install an expansion vessel in the return pipe.
- When installing open-vented systems, the cold feed and expansion tank heights must comply with the requirements laid down in the Health and Safety Executive publication PM5. The Quinta Ace boilers require a minimum static height of 3 m (Quinta Ace 30/45/55/65/90 or 5 m (115).

4.3.2 Requirements for condensate drain line

- The siphon must always be filled with water. This prevents flue gases from entering the room.
- Never seal the condensate drain.
- The drain pipe must slope down at least 30 mm per metre, the maximum horizontal length is 5 metres.
- Condensed water must not be discharged into a gutter.

4.3.3 Flushing the system

The installation must be cleaned and flushed in accordance with BS 7593 (2019) and BSRIA BG 33/2014.

Before a new boiler can be connected to a system, the entire system must be thoroughly cleaned by flushing it. The flushing will remove residue from the installation process (weld slag, fixing products etc.) and accumulations of dirt (silt, mud etc.)

**Important**

- Flush the heating system with a volume of water equivalent to at least three times the volume of the system.
- Flush the domestic hot water pipes with at least 20 times the volume of the pipes.

**Important**

Due to the presence of an aluminium heat exchanger, suitable chemicals and the correct use of these chemicals should be discussed with specialist water treatment companies.

4.4 Requirements for gas connection

- Before starting work on the gas pipes, turn off the main gas tap.
- Before installing, check that the gas meter has sufficient capacity. Take into account the consumption of all appliances.
- Notify the local energy company if the gas meter has insufficient capacity.
- Remove dirt and dust from the gas pipe.
- Always perform welding work at a sufficient distance from the boiler.
- We recommend installing a gas filter to prevent clogging of the gas valve unit.

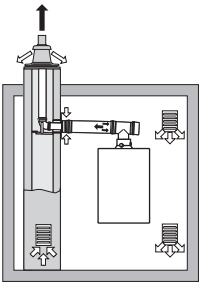
4.5 Requirements on the flue gas discharge system

4.5.1 Classification

**Important**

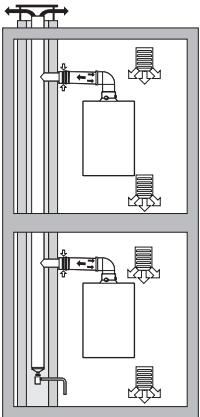
- The installer is responsible ensuring that the right type of flue gas outlet system is used and that the diameter and length are correct.
- Always use connection materials, roof terminal and/or outside wall terminal supplied by the same manufacturer. Consult the manufacturer for compatibility details.
- The use of flue gas outlet systems from other manufacturers is allowed in addition to the recommended manufacturers listed in this manual. Use is only allowed when all our requirements are met and the description of flue gas connection C₆₃ is respected.

Tab.3 Type of flue gas connection: B_{23P}

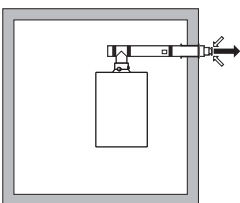
Principle	Description	Recommended manufacturers ⁽¹⁾
 <p>AD-3000924-01</p>	<p>Room-ventilated version</p> <ul style="list-style-type: none"> • Without down-draught diverter. • Flue gas discharge via the roof. • Air from the installation area. • The air supply opening of the boiler must stay open. • The installation area must be vented to ensure sufficient air supply. The vents must not be obstructed or shut off. • The IP rating of the boiler is lowered to IP20. 	<p>Connection material and roof terminal:</p> <ul style="list-style-type: none"> • Centrotherm • Cox Geelen • Muelink & Grol • Natalini • Poujoulat • Ubbink

(1) The material must also satisfy the material property requirements from the relevant chapter.

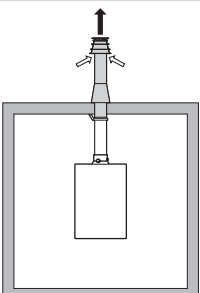
Tab.4 Type of flue gas connection: B₃₃

Principle	Description	Recommended manufacturers ⁽¹⁾
 <p>AD-3000925-01</p>	<p>Room-ventilated version</p> <ul style="list-style-type: none"> • Without down-draught diverter. • Joint flue gas discharge via the roof, with guaranteed natural draft (at all times underpressure in the joint discharge duct). • Flue gas discharge rinsed with air, air from the installation area (special construction). • The IP rating of the boiler is lowered to IP20. 	<p>Connection material:</p> <ul style="list-style-type: none"> • Centrotherm • Cox Geelen • Muelink & Grol • Natalini • Poujoulat • Ubbink
(1) The material must also satisfy the material property requirements from the relevant chapter.		

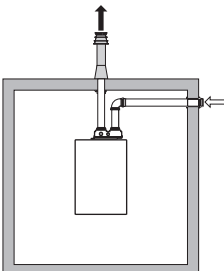
Tab.5 Type of flue gas connection: C₁₃

Principle	Description	Recommended manufacturers ⁽¹⁾
 <p>AD-3000926-01</p>	<p>Room-sealed version</p> <ul style="list-style-type: none"> • Discharge in the outside wall. • Air supply opening is in the same pressure zone as the discharge (e.g. a combined outside wall terminal). • Parallel wall terminal not permitted. 	<p>Outside wall terminal and connection material:</p> <ul style="list-style-type: none"> • Remeha, combined with connection material from Muelink & Grol • Cox Geelen • Muelink & Grol
(1) The material must also satisfy the material property requirements from the relevant chapter.		

Tab.6 Type of flue gas connection: C₃₃

Principle	Description	Recommended manufacturers ⁽¹⁾
 <p>AD-3000927-01</p>	<p>Room-sealed version</p> <ul style="list-style-type: none"> • Flue gas discharge via the roof. • Air supply opening is in the same pressure zone as the discharge (e.g. a concentric roof terminal). 	<p>Roof terminal and connection material</p> <ul style="list-style-type: none"> • Centrotherm • Cox Geelen • Muelink & Grol • Natalini • Poujoulat • Ubbink
(1) The material must also satisfy the material property requirements from the relevant chapter.		

Tab.7 Type of flue gas connection: C₅₃

Principle	Description	Recommended manufacturers ⁽¹⁾
	<p>Connection in different pressure zones</p> <ul style="list-style-type: none"> • Closed unit. • Separate air supply duct. • Separate flue gas discharge duct. • Discharging into various pressure areas. • The air supply and the flue gas outlet must not be placed on opposite walls. 	<p>Connection material and roof terminal:</p> <ul style="list-style-type: none"> • Centrotherm • Cox Geelen • Muelink & Grol • Natalini • Poujoulat • Ubbink

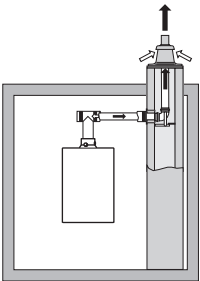
(1) The material must also satisfy the material property requirements from the relevant chapter.

Tab.8 Type of flue gas connection: C₆₃

Principle	Description	Recommended manufacturers ⁽¹⁾
	<p>This type of unit is supplied by us without an air supply system and flue gas system.</p> <p>When selecting the material, please note the following:</p> <ul style="list-style-type: none"> • Condensed water must flow back to the boiler. • The material must be resistant to the flue gas temperature of this boiler. • Maximum permissible recirculation of 10%. • The air supply and the flue gas outlet must not be placed on opposite walls. • Minimum permitted pressure difference between the air supply and the flue gas outlet is -200 Pa (including -100 Pa wind pressure). 	<p>Use is only allowed when all our requirements are met and the description of this type of flue gas connection is respected.</p>

(1) The material must also satisfy the material property requirements from the relevant chapter.

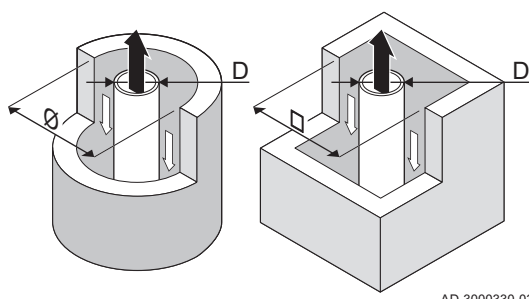
Tab.9 Type of flue gas connection: C₉₃

Principle ⁽¹⁾	Description	Recommended manufacturers ⁽²⁾
	<p>Room-sealed version</p> <ul style="list-style-type: none"> • Air supply and flue gas discharge duct in shaft or ducted: <ul style="list-style-type: none"> - Concentric. - Air supply from existing duct. - Flue gas discharge via the roof. - Inlet opening for the air supply is in the same pressure zone as the discharge. 	<p>Connection material and roof terminal:</p> <ul style="list-style-type: none"> • Centrotherm • Cox Geelen • Muelink & Grol • Natalini • Poujoulat • Ubbink

(1) See table for shaft or duct requirements.
(2) The material must also satisfy the material property requirements from the relevant chapter.

Tab.10 Minimum dimensions of shaft or duct C₉₃

Version (D)	Without air supply		With air supply	
Rigid 80 mm	Ø 130 mm	□ 130 x 130 mm	Ø 140 mm	□ 130 x 130 mm
Rigid 100 mm	Ø 160 mm	□ 160 x 160 mm	Ø 170 mm	□ 160 x 160 mm
Concentric 80/125 mm	Ø 145 mm	□ 145 x 145 mm	Ø 145 mm	□ 145 x 145 mm
Concentric 100/150 mm	Ø 170 mm	□ 170 x 170 mm	Ø 170 mm	□ 170 x 170 mm

Fig.4 Minimum dimensions of shaft or duct C₉₃

AD-3000330-03

**Important**

The shaft must comply with the air density requirements of the local regulations.

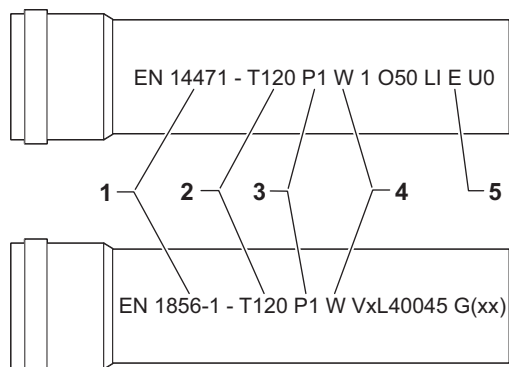
**Important**

- Always clean shafts thoroughly when using lining pipes and/or an air supply connection.
- It must be possible to inspect the lining duct.

4.5.2 Material

Use the string on the flue gas outlet material to check whether it is suitable for use on this appliance.

Fig.5 Sample string



AD-3001120-01

- 1 EN 14471 or EN 1856-1:** The material is CE approved according to this standard. For plastic this is EN 14471, For aluminium and stainless steel this is EN 1856-1.
- 2 T120:** The material has temperature class T120. A higher number is also allowed, but not lower.
- 3 P1:** The material falls into pressure class P1. H1 is also allowed.
- 4 W:** The material is suitable for draining condensation water (W='wet'). D is not allowed (D='dry').
- 5 E:** The material falls into fire resistance class E. Class A to D are also allowed, F is not allowed. Only applicable to plastic.

**Warning**

- The coupling and connection methods may vary depending on the manufacturer. It is not permitted to combine pipes, coupling and connection methods from different manufacturers. This also applies to roof terminal and common shared flue ducts.
- The materials used must comply with the prevailing regulations and standards.
- Please contact us to discuss using flexible flue gas outlet material.

Tab.11 Overview of material properties

Version	Flue gas outlet		Air supply	
	Material	Material properties	Material	Material properties
Single-wall, rigid	<ul style="list-style-type: none"> • Plastic⁽¹⁾ • Stainless steel⁽²⁾ • Thick-walled, aluminium⁽²⁾ 	<ul style="list-style-type: none"> • With CE marking • Temperature class T120 or higher • Condensate class W (wet) • Pressure class P1 or H1 • Fire resistance class E or better⁽³⁾ 	<ul style="list-style-type: none"> • Plastic • Stainless steel • Aluminium 	<ul style="list-style-type: none"> • With CE marking • Pressure class P1 or H1 • Fire resistance class E or better⁽³⁾
(1) according to EN 14471 (2) according to EN 1856 (3) according to EN 13501-1				

4.5.3 Dimensions of flue gas outlet pipe

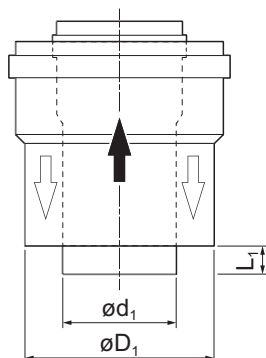


Warning

The pipes connected to the flue gas adapter must satisfy the following dimension requirements.

- d_1 External dimensions of flue gas outlet pipe
- D_1 External dimensions of air supply pipe
- L_1 Length difference between flue gas outlet pipe and air supply pipe

Fig.6 Dimensions of concentric connection



AD-3000962-01

Tab.12 Dimensions of pipe

	d_1 (min-max)	D_1 (min-max)	$L_1^{(1)}$ (min-max)
80/125 mm	79.3 - 80.3 mm	124 - 125.5 mm	0 - 15 mm
100/150 mm	99.3 - 100.3 mm	149 - 151 mm	0 - 15 mm

(1) Shorten the inner pipe if the length difference is too great.

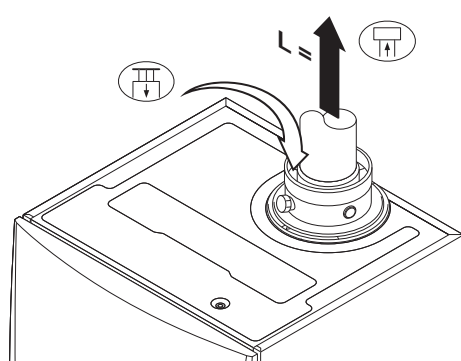
4.5.4 Length of the flue and air supply pipes

The maximum length of the flue and air supply vary per appliance type. Consult the relevant chapter for the correct lengths.

- If a boiler is not compatible with a specific flue system or diameter, it is indicated with "-" in the table.
- When using bends, the maximum flue length (L) must be shortened according to the reduction table.
- Use approved flue reducers for adaptation to another diameter.
- The boiler also supports other flue lengths and diameters than those specified in the tables. Contact us for more information.

■ Room-ventilated model (B_{23P}, B₃₃)

Fig.7 Room-ventilated version



AD-0000028-02

L Length of the flue gas outlet channel to roof terminal

Connecting the flue gas outlet

Connecting the air supply

With a room-ventilated version, the air supply opening stays open; only the flue gas outlet opening is connected. This will ensure that the boiler obtains the necessary combustion air directly from the installation area.



Caution

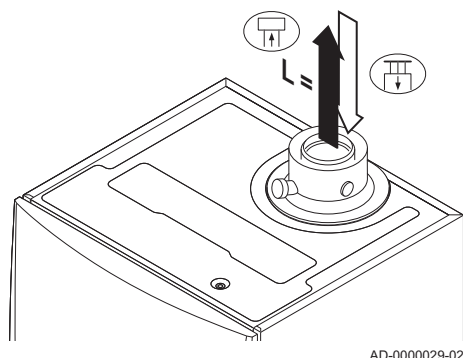
- The air supply opening must stay open.
- The installation area must be equipped with the necessary air supply openings. These openings must not be obstructed or shut off.

Tab.13 Maximum length (L)

Diameter ⁽¹⁾	80 mm	90 mm	100 mm	110 mm	130 mm
Quinta Ace 30	33 m	40 m	40 m ⁽¹⁾	40 m ⁽¹⁾	40 m ⁽¹⁾
Quinta Ace 45	39 m	40 m ⁽¹⁾	40 m ⁽¹⁾	40 m ⁽¹⁾	40 m ⁽¹⁾
Quinta Ace 55	16 m	26 m	39 m	40 m ⁽¹⁾	40 m ⁽¹⁾
Quinta Ace 65	11 m	17 m	26 m	40 m	40 m ⁽¹⁾
Quinta Ace 90	10 m	16 m	24 m	40 m	40 m ⁽¹⁾
Quinta Ace 115	8 m	13 m	19 m	38 m	40 m ⁽¹⁾


(1) Retaining the maximum chimney length it is possible to use an extra 5 x 90° or 10 x 45° elbows.


Fig.8 Room-sealed version (concentric)



■ Room-sealed model (C₁₃, C₃₃, C₆₃, C₉₃)

L Total length of the flue gas outlet and air supply duct

 Connecting the flue gas outlet

 Connecting the air supply

With a room-sealed version, both the flue gas outlet and the air supply openings are connected (concentrically).

Tab.14 Maximum chimney length (L)


Diameter ⁽¹⁾	80/125 mm	100/150 mm
Quinta Ace 30	20 m	20 m ⁽¹⁾
Quinta Ace 45	20 m	20 m ⁽¹⁾
Quinta Ace 55	8 m	20 m ⁽¹⁾
Quinta Ace 65	4 m	18 m
Quinta Ace 90	4 m	17 m
Quinta Ace 115	-	13 m

(1) Retaining the maximum chimney length it is possible to use an extra 5 x 90° or 10 x 45° elbows.

■ Connection in different pressure areas (C₅₃)

L Total length of the flue gas outlet and air supply duct

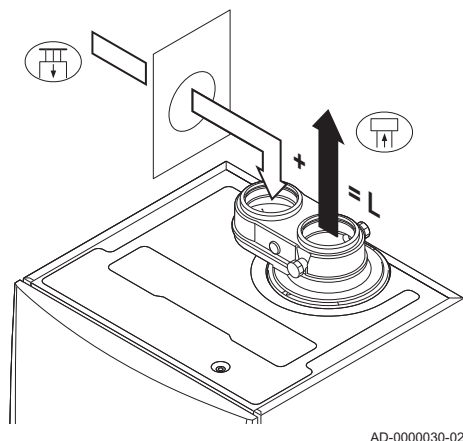
 Connecting the flue gas outlet

 Connecting the air supply

An 80/80 or 100/100 mm flue gas adapter (accessory) must be fitted for this connection.

Combustion air supply and flue gas discharge are possible in different pressure areas and semi-CLV systems, with the exception of the coastal area. The maximum permitted height difference between the combustion air supply and the flue gas outlet is 36 m.

Fig.9 Different pressure areas



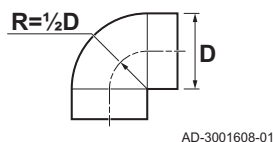
Tab.15 Maximum length (L)

Diameter ⁽¹⁾	80 mm	90 mm	100 mm	110 mm	130 mm
Quinta Ace 30	17 m	29 m	40 m	40 m ⁽¹⁾	40 m ⁽¹⁾
Quinta Ace 45	29 m	40 m	40 m ⁽¹⁾	40 m ⁽¹⁾	40 m ⁽¹⁾
Quinta Ace 55	9 m	17 m	27 m	40 m	40 m ⁽¹⁾
Quinta Ace 65	5 m	10 m	16 m	34 m	40 m ⁽¹⁾
Quinta Ace 90	-	-	17 m	37 m	40 m ⁽¹⁾
Quinta Ace 115	-	-	14 m	31 m	40 m ⁽¹⁾

(1) Retaining the maximum chimney length it is possible to use an extra 5 x 90° or 10 x 45° elbows.

■ Reduction table

Fig.10 Bend radius ½D



Tab.16 Pipe reduction for each bend - radius ½D (parallel)

Diameter	80 mm	100 mm
45° bend	1.2 m	1.4 m
90° bend	4.0 m	4.9 m

Tab.17 Pipe reduction for each bend - radius $\frac{1}{2}D$ (concentric)

Diameter	80/125 mm	100/150 mm
45° bend	1.0 m	1.0 m
90° bend	2.0 m	2.0 m

4.5.5 Additional guidelines

■ Installation

- For installing the flue gas outlet and air supply materials, refer to the instructions of the manufacturer of the relevant material. After installation, check at least all flue gas outlet and air supply parts for tightness.



Warning

If the flue gas outlet and air supply materials are not installed in accordance with the instructions (e.g. not leak-proof, not correctly bracketed), this can result in dangerous situations and/or physical injury.

- Make sure that the flue gas outlet pipe towards the boiler has a sufficient gradient (at least 50 mm per metre) and that there is a sufficient condensate collector and discharge (at least 1 m before the outlet of the boiler). The bends used must be larger than 90° to guarantee the gradient and a good seal on the lip rings.

■ Condensation

- Direct connection of the flue gas outlet to structural ducts is not permitted because of condensation.
- If condensate from a plastic or stainless steel pipe section can flow back to an aluminium part in the flue gas outlet, this condensate must be discharged via a collector before it reaches the aluminium.
- Newly installed aluminium flue gas pipes with longer lengths can produce relatively larger quantities of corrosion products. Check and clean the siphon more often in this case.



Important

Contact us for more information.

4.6 Requirements for the electrical connections

- Establish the electrical connections in accordance with all local and national current regulations and standards.
- Electrical connections must always be made with the power supply disconnected and only by qualified installers.
- The boiler is completely pre-wired. Never change the internal connections of the control panel.
- Always connect the boiler to a well-earthed installation.
- The wiring must comply with the instructions in the electrical diagrams.
- Follow the recommendations in this manual.
- Separate the sensor cables from the 230 V cables

Make sure the following requirements are met when connecting the cables to the CB and SCB connectors:

Tab.18 PCB connectors

Wire cross section	Stripping length	Tightening torque
solid wire: 0.14 – 4.0 mm ² (AWG 26 – 12) stranded wire: 0.14 – 2.5 mm ² (AWG 26 – 14) stranded wire with ferrule: 0.25 – 2.5 mm ² (AWG 24 – 14)	8 mm	0.5 N·m

4.7 Water quality and water treatment

The quality of the heating water must comply with the limit values in our **Water quality instructions**. The guidelines in these instructions must be followed at all times. In many cases, the boiler and central heating system can be filled with normal tap water and water treatment will not be necessary.

4.8 Process heat application

In process heat applications (for example pasteurisation and drying and washing processes), the boiler is being used for industrial purposes and not for central heating. With process heat, the nominal flow (at ΔT 20°C) in the primary CH circuit must be guaranteed. The flow in the secondary circuit may vary.

To ensure that this is the case, a flow rate sensor can be fitted, which locks out the boiler if the flow falls below a specified level (due to a defective pump or valve, for example).

**Important**

The service life of the boiler may be reduced if it is used for process heat applications.

4.9 Increase default ΔT setting

In some cases, the default ΔT setting of the boiler will need to be increased, for example in systems with:

- underfloor heating
- air heating
- district heating
- a heat pump.

**Important**

Do not increase the default ΔT setting when the boiler is used in an open-vented system.

**Important**

To limit the amount of short cycling, ensure minimum water circulation by using a bypass or low loss header.

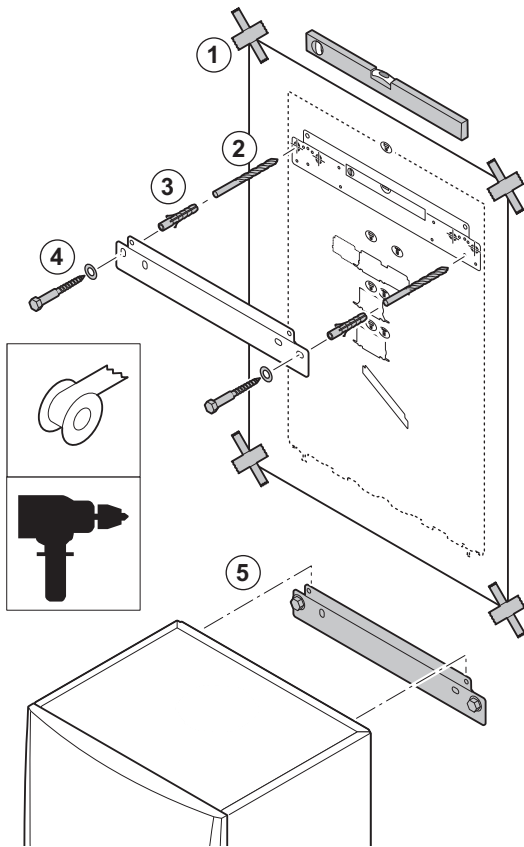
4.10 Open-vented application

In open vented applications the boiler is often operating with lower water pressure levels. In these cases the default minimum water pressure setting must be decreased to a value of 0,0 bar.

5 Installation

5.1 Positioning the boiler

Fig.11 Mounting the boiler



AD-0000018-02

The fitting bracket on the back of the casing can be used to mount the boiler directly on the suspension bracket.

The boiler is supplied with a mounting template.

1. Attach the mounting template of the boiler to the wall using adhesive tape.



Warning

- Use a level to check whether the mounting template is hanging perfectly horizontally.
- Protect the boiler against building dust and cover the connection points for the flue gas outlet and air supply. Only remove this cover to assemble the relevant connections.

2. Drill 2 holes of Ø 10 mm.



Important

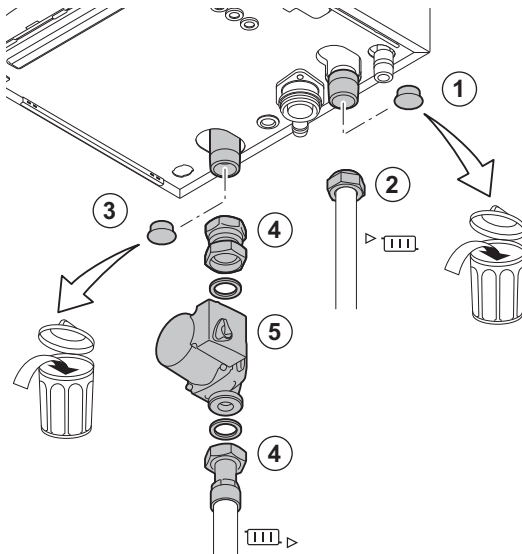
The extra fixing holes in the suspension bracket are intended for use in the event that one of the two holes is not suitable for the correct fastening of the plug.

3. Fit the Ø 10 mm plugs.
4. Remove the mounting template.
5. Attach the suspension bracket to the wall with the Ø 10 mm bolts supplied.
6. Mount the boiler on the suspension bracket.

5.2 Hydraulic connections

5.2.1 Connecting the heating circuit

Fig.12 Connecting the CH flow and CH return



AD-4100110-01


1. Remove the dust cap from the CH flow connection ► (III) at the bottom of the boiler.
2. Fit the outlet pipe for CH water to the CH flow connection.
3. Remove the dust cap from the CH return connection (III) ► at the bottom of the boiler.
4. Fit the inlet pipe for CH water to the CH return connection.
5. Install the pump in the CH return pipe (if applicable).



See also

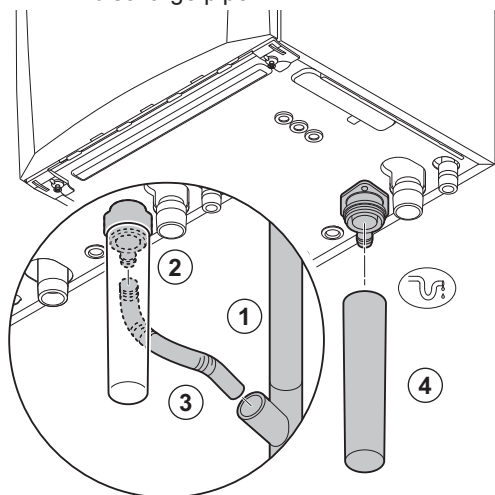
- Connecting the standard pump, page 31
- Connecting the PWM pump, page 31

5.2.2 Connecting the expansion vessel

1. Ensure that there is an expansion vessel with the correct volume and pre-charge.
2. Fit the expansion vessel on the central heating return pipe .

5.2.3 Connecting the condensate discharge pipe

Fig.13 Connecting the condensate discharge pipe

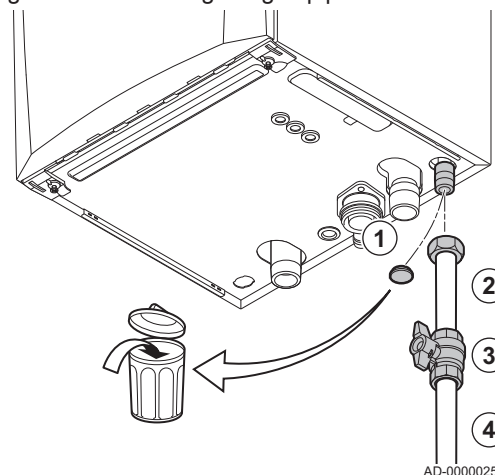


AD-0000024-02

1. Fit a plastic drain pipe of Ø 32 mm or larger, terminating in the drain.
2. Insert the flexible condensate drain hose into the pipe.
3. Fit a stench-trap or siphon in the drain pipe.
4. Fit the siphon.

5.3 Gas connection

Fig.14 Connecting the gas pipe



AD-0000025-02

1. Remove the dust cap from the gas supply pipe ^{GAS/}GAZ at the bottom of the boiler.
2. Fit the gas supply pipe.
3. Fit a gas tap in this pipe, directly underneath the boiler (within 1 metre).
4. Fit the gas pipe to the gas tap.



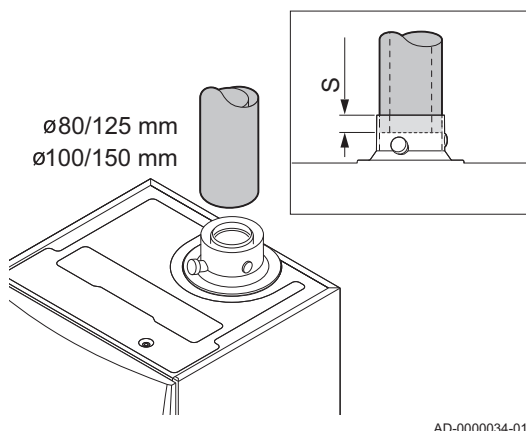
Important

The gas tap must always be accessible

5.4 Air supply/flue gas outlet connections

5.4.1 Connecting the flue gas outlet and air supply

Fig.15 Connecting the flue gas outlet and air supply



AD-0000034-01

S Insertion depth 25 mm

1. Connect the flue gas outlet pipe and the air supply pipe to the boiler.
2. Fit the subsequent flue gas outlet pipes and air supply pipes in accordance with the manufacturer's instructions.



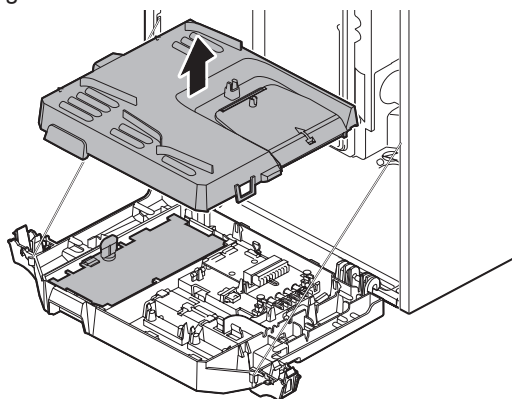
Caution

- The pipes must not be resting on the boiler.
- Fit the horizontal parts sloping down towards the boiler, with a gradient of 50 mm per metre.

5.5 Electrical connections

5.5.1 Control unit

Fig.16 CU-GH08



AD-3001374-01

The table gives important connection values for the control unit.

Tab.19 Connection values for control unit

Supply voltage	230 VAC/50 Hz
Main fuse value F1 (230 VAC)	2.5 AT
Fan	230 VAC



Danger of electric shock

The following components of the boiler are connected to a 230 VAC power supply:

- Electrical connection to circulating pump.
- Electrical connection to gas combination block.
- Electrical connection to fan.
- Control unit.
- Ignition transformer.
- Power supply cable connection.

The boiler has a three-wire mains lead (lead length 1.5 m) and is suitable for a 230 VAC/50 Hz supply with a phase/neutral/earth system. The power supply cable is connected to the **X1** connector. A spare fuse can be found in the casing of the control unit. The boiler is not phase sensitive. The control unit is fully integrated with the fan, venturi and gas valve unit. The boiler is completely pre-wired.



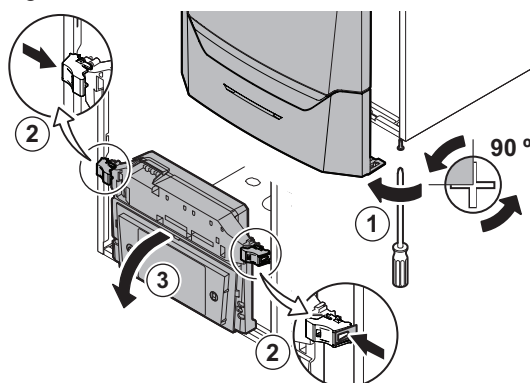
Caution

- Always order a replacement mains lead from Remeha. The power supply cable should only be replaced by Remeha, or by an installer certified by Remeha.
- The boiler switch must be easily accessible at all times.
- Use an isolating transformer for connection values other than those stated above.

The boiler has several control, protection and regulation connection options. The standard PCB can be extended with optional PCBs.

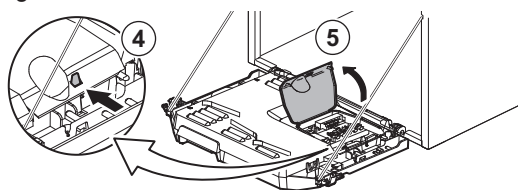
5.5.2 Access to the instrument box

Fig.17 Access to the instrument box



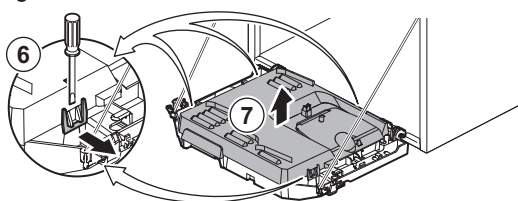
AD-3001411-01

Fig.18



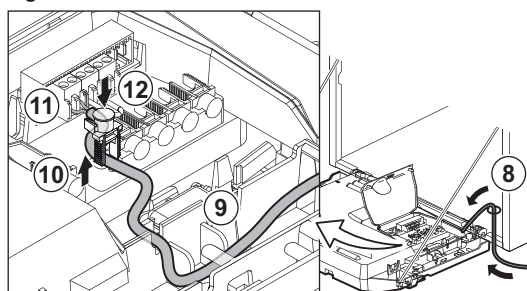
AD-3001412-01

Fig.19



AD-3001413-01

Fig.20



AD-3001415-01

The following is installed in the instrument box:

- the standard PCB **CB-03** with connector **X3**.
- the **IF-01** PCB with connectors **X4** and **X5**

1. Unscrew the two screws located under the front housing by a quarter turn and remove the front housing.
2. Press the clips on the sides of the instrument box inwards slightly.
3. Tilt the instrument box forwards.

4. Press the clip on the side of the instrument box flap inwards slightly.
5. Open the instrument box flap.
⇒ The connector **X3** on the **CB-03** PCB is now accessible.
6. Release the 4 clips of the instrument box cover gently with a screwdriver.

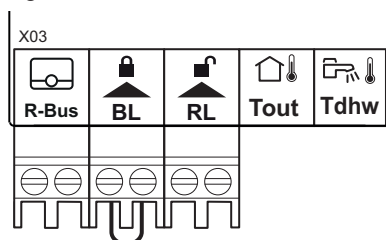
7. Lift the instrument box cover
⇒ The connectors **X4** and **X5** on the **IF-01** PCB are now accessible.

8. Guide the relevant connection cable(s) through the round grommet(s) on the boiler's bottom plate.
9. Guide the relevant connection cable(s) through the instrument box via the cable ducts provided.
10. Undo the strain relief clip(s) and feed the cable(s) underneath.
11. Connect the cables to the appropriate terminals on the connector.
12. Press the strain relief clip(s) firmly into place.
13. Close the instrument box.

5.5.3 Connection options for the connection PCB - CB-03

The boiler is fitted with a connection PCB, to which various thermostats and regulators can be connected.

Fig.21 Connectors on the connection PCB



AD-3001367-01

- R-Bus** Room unit (thermostat) connector
BL Blocking input
RL Release input
Tout Outdoor sensor connector
Tdhw DHW sensor connector

■ Connecting a modulating room thermostat

The boiler is fitted with a **R-Bus** connection as standard instead of an **OT**-connector. The **R-Bus** connector supports the following types:

Fig.22 Connecting the modulating thermostat



AD-3000968-02

- **R-Bus** thermostat (for example, the **eTwist**)
- **OpenTherm** thermostat (for example, the **iSense**)
- **On/off** thermostat

The software recognizes which type of thermostat is connected.

Tm Modulating thermostat

1. In the case of a room thermostat: install the thermostat in a reference room.
2. Connect the two-wire cable of the modulating thermostat (**Tm**) to the terminals **R-Bus** of the connector. It does not matter which wire is connected to which cable clamp.

Fig.23 Connecting the on/off thermostat



AD-3000969-02

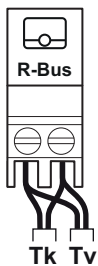
■ Connecting the on/off thermostat

The boiler is suitable for connection to a 2-wire on/off ambient thermostat.

Tk On/off thermostat

1. Fit the thermostat in a reference room.
2. Connect the two-wire cable of the thermostat (**Tk**) to the **R-Bus** terminals of the connector. It does not matter which wire is connected to which cable clamp.

Fig.24 Connecting the frost protection thermostat



AD-3000970-02

■ Frost protection combined with on/off thermostat

When an on/off thermostat is used, the pipes and radiators in a frost-sensitive room can be protected by a frost protection thermostat. The radiator valve in the frost-sensitive room must be open.

Tk On/off thermostat

Tv Frost protection thermostat

1. Place a frost protection thermostat (**Tv**) in a frost-sensitive room (e.g. a garage).
2. Connect the frost protection thermostat (**Tv**) parallel with an on/off thermostat (**Tk**) to the terminals **R-Bus** of the connector.



Warning

If an **OpenTherm** thermostat (for example, the **eTwist**) is used, a frost protection thermostat cannot be connected in parallel to the **R-Bus** terminals. In such cases, install frost protection in the central heating system in combination with an outdoor temperature sensor.

■ Blocking input



Caution

Only suitable for potential-free contacts (dry contact).



Important

First remove the bridge if this input is used.

Fig.25 Blocking input



AD-3000972-02

The boiler has a blocking input. A potential-free contact can be connected to the **BL** terminals of the connector. If the contact is opened, the boiler will be blocked.

Change the function of the input using parameter **AP001**. This parameter has the following 3 configuration options:

- Complete blocking: no frost protection with the outdoor sensor and no boiler frost protection (pump does not start and burner does not start)
- Partial blocking: boiler frost protection (pump starts when the temperature of the heat exchanger is $< 6^{\circ}\text{C}$ and the burner starts when the temperature of the heat exchanger is $< 3^{\circ}\text{C}$)
- Lock out: no frost protection with outdoor sensor and partial boiler frost protection (pump starts when the temperature of the heat exchanger is $< 6^{\circ}\text{C}$, the burner does not start when the temperature of the heat exchanger is $< 3^{\circ}\text{C}$).

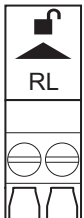
■ Release input



Caution

Only suitable for potential-free contacts (dry contact).

Fig.26 Release input



AD-3001303-02

The boiler has a release input. A potential-free contact can be connected to the **RL** terminals of the connector.

- If the contact is closed during a heat demand, the boiler will be blocked immediately.
- If the contact is closed when there is no heat demand, the contact does nothing until the main PCB receives a 'start burner'- command. After that command, a waiting time starts. If the contact is closed during this waiting time, the burner does not start and the boiler will be blocked. Set the waiting time with parameter **AP008**. A waiting time of 0 will disable the contact.

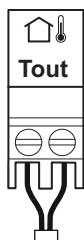
■ Connecting an outdoor sensor

An outdoor sensor can be connected to the **Tout** connector. In the case of an on/off thermostat, the boiler will control the temperature with the set point from the internal heating curve. An **OpenTherm** controller can also use this outdoor sensor. In that case, the desired internal heating curve must be set on the controller.

Use below mentioned sensors, or sensors with identical characteristics. Set parameter **AP056** to the installed outdoor sensor type.

- AF60 = NTC 470 $\Omega/25^{\circ}\text{C}$
- QAC34 = NTC 1000 $\Omega/25^{\circ}\text{C}$

Fig.27 Connecting an outdoor sensor



AD-3000973-02

1. Connect the plug from the outdoor sensor to the **Tout** connector.

■ Frost protection combined with outdoor sensor

The central heating system can also be protected against frost in combination with an outdoor sensor. The radiator valve in the frost-sensitive room must be open.

Fig.28 Connecting an outdoor sensor



AD-3000973-02

1. Connect the plug from the outdoor sensor to the **Tout** connector.

The frost protection works as follows with an outdoor sensor:

- If the outdoor temperature is lower than the threshold for frost protection: heat demand from the boiler and the pump starts working.
- If the outdoor temperature is higher than the threshold for frost protection: no heat demand from the boiler.

**Important**

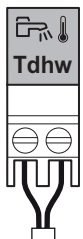
The outdoor temperature threshold for frost protection can be changed with parameter **AP080**.

■ Connecting the calorifier sensor/thermostat

A calorifier sensor or thermostat can be connected to the **Tdhw** terminals of the connector. Only NTC 10 k Ω /25°C sensors can be used.

1. Connect the two-wire cable to the **Tdhw** terminals of the connector.

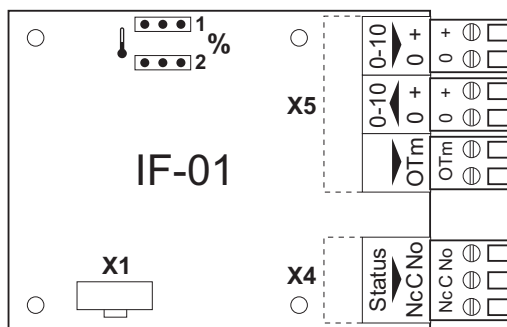
Fig.29 Connecting the calorifier sensor/ thermostat



AD-3000971-02

5.5.4 Connection options for the expansion PCB - IF-01

Fig.30 IF-01 PCB



AD-0000054-01

The expansion board IF-01 is pre-installed in the instrument box as standard.

**Caution**

Do not connect a frost thermostat or room thermostat to the boiler if using the 0–10 V control PCB.

■ Connecting the status relay (Nc)

If the boiler locks out, a relay is de-energised and the alarm can be transmitted via a potential-free contact (maximum 230 V, 1 A) on terminals **Nc** and **C** of the connector.

■ Connection (OTm)

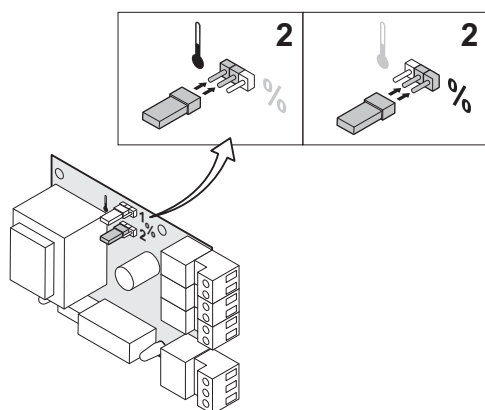
The interface uses **OpenTherm** to communicate with the boiler control unit. To make this possible, the **OTm** connection must be connected to the **OpenTherm** input of the boiler control unit. **OTm**

■ Analogue input (0-10 V)

A choice can be made with this control between control based on temperature or heat output. The two controls are described briefly below.

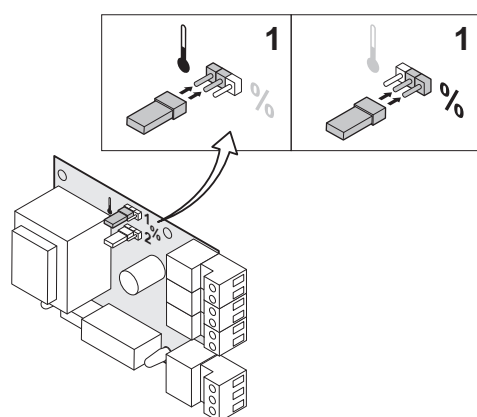
1. Connect the input signal to terminals **0–10** of the connector.

Fig.31 Switch jumper (2)



AD-0000055-01

Fig.32 Switch jumper (1)



AD-0000056-01

Tab.20 Temperature-based control (°C)

Jumper 2	Input signal (V)	Temperature °C	Description
🌡️	0–1.5	0–15	Boiler off
	1.5–1.8	15–18	Hysteresis
	1.8–10	18–100	Desired temperature

The 0–10 V signal controls the boiler supply temperature. This control modulates on the basis of flow temperature. The output varies between the minimum and maximum value on the basis of the flow temperature set point calculated by the controller.

A jumper (2) on the interface is used to select either temperature-based control (🌡️) or output-based control (%).

Tab.21 Control based on heat output

Jumper 2	Input signal (V)	Heat output (%)	Description
%	0–2.0 ⁽¹⁾	0–20	Boiler off
	2.0–2.2 ⁽¹⁾	20–22	Hysteresis
	2.0–10 ⁽¹⁾	20–100	Desired heat output
(1) Dependent on the minimum modulation depth (set speeds, standard 20%)			

The 0–10 V signal controls the boiler output. This control modulates on the basis of the heat output. The minimum output is linked to the boiler's modulation depth. The output varies between the minimum and maximum value on the basis of the value defined by the controller.

■ Analogue output (0–10 V)

This feedback can be based on temperature or heat output. The two controls are described briefly below.

A jumper (1) on the interface is used to select either temperature (🌡️) or output (%).

Tab.22 Temperature message

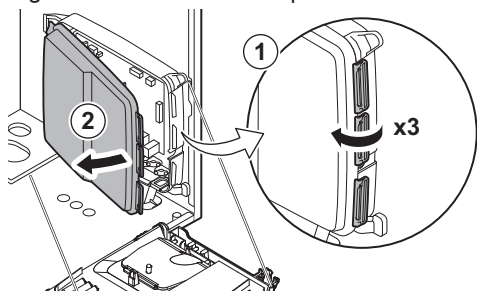
Jumper 1	Output signal (V)	Temperature °C	Description
🌡️	0.5	–	Alarm
	1–10	10–100	Supplied temperature

Tab.23 Output message

Jumper 2	Output signal (V)	Heat output (%)	Description
%	0	0–15	Boiler off
	0.5	15–20	Alarm
	2.0–10 ⁽¹⁾	20–100	Supplied heat output
(1) Dependent on the minimum modulation depth (set speeds, standard 20%)			

5.5.5 Access to the expansion box

Fig.33 Access to the expansion box



AD-4000062-01

If there is no space in the boiler's instrument box to install an (optional) expansion PCB, install the PCB in the electronics expansion box. This is available as an accessory.

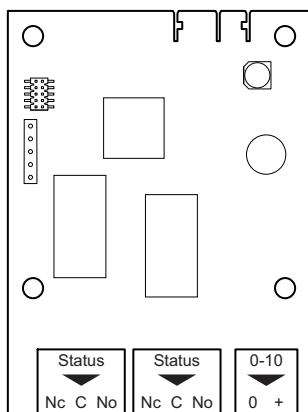
1. Unclip the housing cover.
2. Remove the cover.
3. Install the expansion PCB in accordance with the instructions supplied.

The following is installed in the expansion box:

- **SCB-01** PCB.

5.5.6 The SCB-01 expansion PCB

Fig.34 SCB-01 PCB



AD-3001514-01

The SCB-01 has the following features:

- Two potential free contacts for status notifications
- 0–10 V output connection for a PWM system pump

Expansion PCBs are automatically recognised by the control unit of the boiler. If expansion PCBs are removed, the boiler will show an error code. To resolve this error, an auto-detect must be carried out after removal.

■ Connecting status notifications

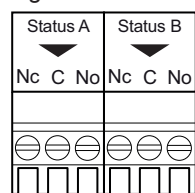
The two potential-free contacts, **Status**, can be configured as required. Depending on the setting, a particular status can be transmitted by the boiler.

Connect a relais as follows:

- Nc** Normally closed contact. Contact will open when status occurs.
- C** Main contact.
- No** Normally opened contact. Contact will close when status occurs.

Select the desired status notification (setting) using parameter **EP018** and **EP019**.

Fig.35 Status notifications



AD-3001312-01

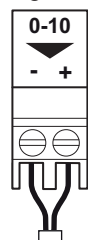
■ Connecting 0–10 V output

The **0-10** contact can be used to connect a PWM system pump. The speed of the pump is modulated based on the signal received from the boiler. Depending on the make and type of pump, the pump can be controlled by a 0–10 V or a PWM signal.

Connect the system pump controller to connector **0-10**.

- Select the type of signal that will be sent from the boiler using the parameter **EP029**.
- Select the type of signal that controls the pump using the parameter **EP028**.

Fig.36 0–10 V output connector



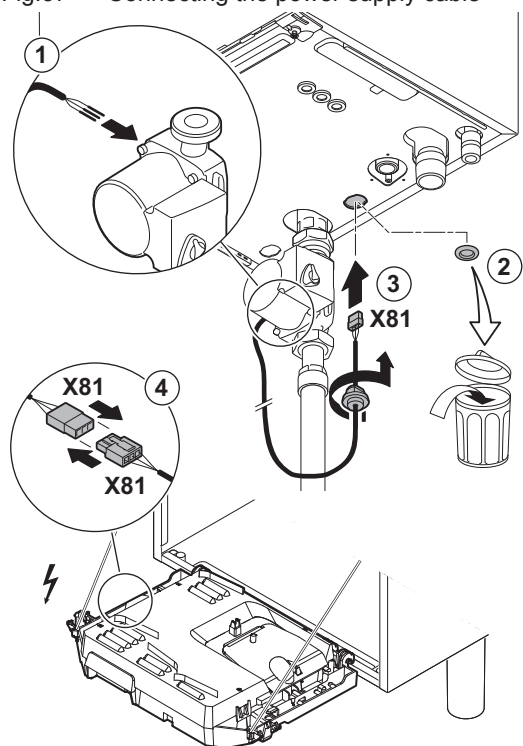
AD-3001305-01

**Caution**

- If possible, use the pump modulation signal. This provides the most accurate pump control.
- If the automatic burner unit does not support pump modulation, the pump will behave as an on/off pump.

5.5.7 Connecting the standard pump

Fig.37 Connecting the power supply cable



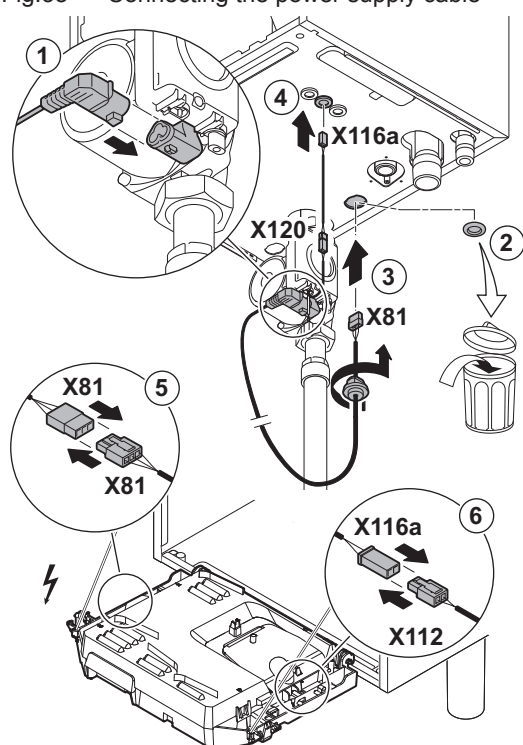
AD-4000093-01

The pump must be connected to the standard control PCB. To do this, proceed as follows:

1. Connect the **X81** power cable to the pump.
2. Remove the grommet from the opening in the middle of the base of the boiler.
3. Pass the pump **X81** cable through the base of the boiler and seal the opening by tightening the bayonet fitting to the cable.
4. Connect the **X81** pump cable to the **X81** cable that runs along the cable duct to the left of the instrument box.

5.5.8 Connecting the PWM pump

Fig.38 Connecting the power supply cable



AD-4000094-03

The energy-efficient modulating pump must be connected to the standard control PCB. To do this, proceed as follows:

1. Connect the power supply cable and the cable for the PWM signal to the pump.
2. Remove the grommet from the opening in the middle of the base of the boiler.
3. Pass the pump power supply cable through the base of the boiler and seal the opening by tightening the bayonet fitting to the cable.
4. Pass the PWM cable from the pump through one of the grommets on the right in the base of the boiler.
5. Connect the **X81** pump power supply cable to the **X81** cable that runs along the cable duct to the left of the instrument box.
6. Connect the **X116A** pump PWM cable to the **X112** cable that runs along the cable duct to the right of the instrument box.

**Important**

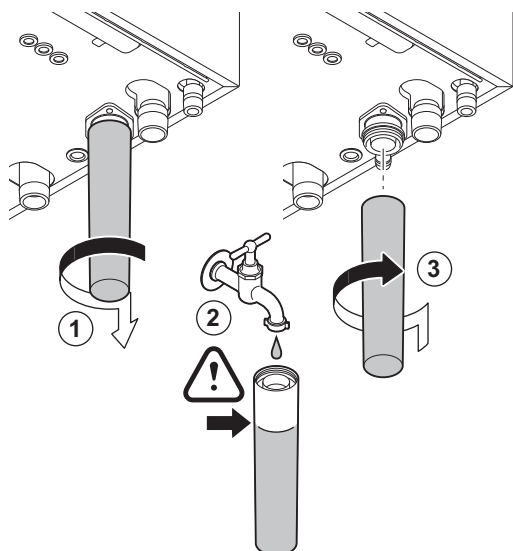
The pump's various settings can be adjusted using the parameters.

6 Preparation of commissioning

6.1 Checklist before commissioning

6.1.1 Filling the siphon

Fig.39 Filling the siphon



AD-0000086-01



Danger

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

1. Remove the siphon.
2. Fill the siphon up with water.
3. Fit the siphon.

⇒ Check that the siphon is securely fitted and that there are no leaks.

6.1.2 Filling the system



Caution

Before filling, open the valves on every radiator in the installation.



Important

In order to be able to read off the water pressure from the boiler display, the boiler must be switched on.

1. Fill the central heating system with clean tap water.



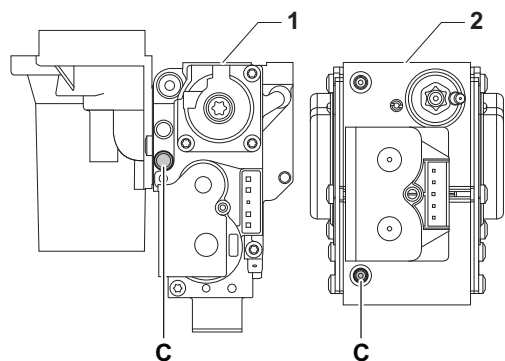
Important

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

2. Check the water-side connections for tightness.

6.1.3 Gas circuit

Fig.40 Gas valve unit measuring points C



AD-0000066-02

- 1 Gas valve unit on the Quinta Ace 30 - 45 - 55 - 65 - 90
- 2 Quinta Ace 115



Warning

- Ensure that the boiler is switched off.
- Do not put the boiler into operation if the type of gas supplied does not conform to the approved gas types.

1. Open the main gas tap.
2. Open the boiler gas tap.
3. Unscrew the two screws located under the front housing by a quarter turn and remove the front housing.

4. Check the gas inlet pressure at the measuring point **C** on the gas valve unit.

**Warning**

- The gas pressure that was measured at the measuring point **C** must fall within the stated gas inlet pressure limits. See Technical data, page 79
- For authorised gas pressures, see: Unit categories, page 76

5. Vent the gas supply pipe by unscrewing the measuring point on the gas valve unit.
6. Tighten the measuring point again when the pipe has been fully vented.
7. Check all connections for gas tightness. The maximum allowable test pressure is 60 mbar.

6.1.4 Hydraulic circuit

1. Check the siphon; it should be fully filled with clean water.
2. Check the water-side connections for tightness.

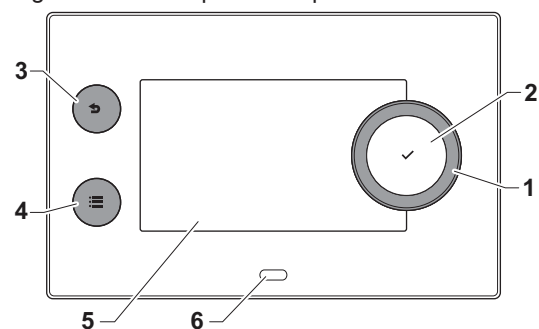
6.1.5 Electrical connections

1. Check the electrical connections.

6.2 Control panel description

6.2.1 Control panel components

Fig.41 Control panel components



- 1 Rotary knob to select a tile, menu or setting
- 2 Confirm button ✓ to confirm the selection
- 3 Back button ↩:
- **Short button press:** Return to the previous level or previous menu
- **Long button press:** Return to home screen
- 4 Menu button ≡ to go to the main menu
- 5 Display
- 6 Status LED

**See also**

Additional documentation, page 8

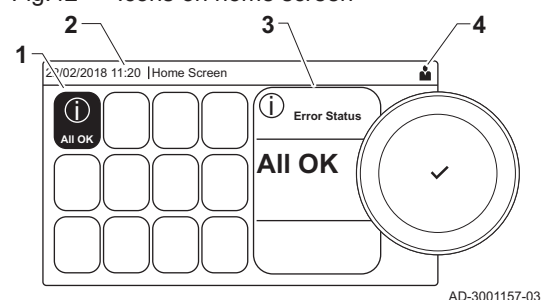
6.2.2 Description of the home screen

This screen is shown automatically after start-up of the appliance. The control panel automatically enters standby mode (black screen) if the buttons are not used for 5 minutes. Press one of the buttons on the control panel to activate the screen again.

You can navigate from any menu to the home screen by pressing the back button ↩ for several seconds.

The tiles on the home screen provide quick access to the corresponding menus. Use the rotary knob to navigate to the desired item and press the button ✓ to confirm the selection.

Fig.42 Icons on home screen



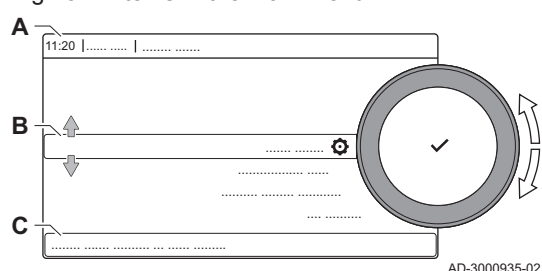
AD-3001157-03

- 1 Tiles: the selected tile is highlighted
- 2 Date and time | Name of the screen (actual position in the menu)
- 3 Information about the selected tile
- 4 Icons indicating navigation level, operating mode, errors and other information.

6.2.3 Description of the main menu

You can navigate from any menu directly to the main menu by pressing the menu button . The number of accessible menus depends on the access level (user or installer).

Fig.43 Items in the main menu



AD-3000935-02

- A Date and time | Name of the screen (actual position in the menu)
- B Available menus
- C Brief explanation of the selected menu

Tab.24 Available menus for the user

Description	Icon
Enable installer access	
System Settings	
Version Information	

Tab.25 Available menus for the installer

Description	Icon
Disable installer access	
Installation Setup	
Commissioning Menu	
Advanced Service Menu	
Error History	
System Settings	
Version Information	

6.2.4 Description of the icons in the display

Tab.26 Icons

Icon	Description
	User menu: user-level parameters can be configured.
	Installer menu: installer-level parameter can be configured.
	Information menu: read out various current values.
	System settings: system parameters can be configured.
	Error indicator.
	Gas boiler indicator.
	Domestic hot water tank is connected.
	The outdoor temperature sensor is connected.
	Boiler number in cascade system.
	The solar calorifier is on and its heat level is displayed.
	Burner output level (1 to 5 bars, with each bar representing 20% output).

Icon	Description
	The pump is running.
	Three-way valve indicator.
	Display of the system water pressure.
	Chimney sweep mode is enabled (forced full load or low load for O ₂ measurement).
	Energy-saving mode is enabled.
	DHW boost is enabled.
	Timer program is enabled: The room temperature is controlled by a timer program.
	Manual mode is enabled: The room temperature is set to a fixed setting.
	Temporary overwrite of the timer program is enabled: The room temperature is changed temporarily.
	The holiday program (including frost protection) is active: The room temperature is reduced during your holiday to save energy.
	Frost protection is enabled: Protect the boiler and installation from freezing in winter.
	Service notification: service needed. Installer contact details are displayed or can be filled in.

Tab.27 Icons - On/off

Icon	Description	Icon	Description
	CH operation is enabled.		CH operation is disabled.
	DHW operation is enabled.		DHW operation is disabled.
	The burner is on.		The burner is off.
	Bluetooth enabled and connected (icon is non-transparent).		Bluetooth enabled and disconnected (icon is transparent).
	Heating enabled.		
	Cooling enabled.		
	Heating/cooling enabled.		Heating/cooling disabled.

Tab.28 Icons - Zones

Icon	Description
	All zones (groups) icon.
	Living room icon.
	Kitchen icon.
	Bedroom icon.
	Study icon.
	Cellar icon.

7 Commissioning

7.1 Commissioning procedure



Warning

- Initial commissioning must be done by a qualified installer.
- If adapting to another type of gas, e.g. propane, the boiler must be adjusted before it is switched on.



See

Fan speed for different gas types, page 37

1. Open the main gas tap.
2. Open the boiler gas tap.

3. Switch the power on with the boiler's on/off switch.
⇒ The start-up program will start and cannot be interrupted. During the program, all segments of the display are shown briefly.
4. Set the components (thermostats, control) so that heat is demanded.

**Important**

In the event of an error during the start-up, a message with the corresponding code is displayed. The meaning of the error codes can be found in the error table.

7.2 Gas settings

7.2.1 Factory setting

The factory setting of the boiler is for operation with the natural gas group G20 (H gas).

Tab.29 Factory settings G20 (H-gas)

Code	Display text	Description	Adjustment range	30	45	55	65	90	115
DP003	Abs. max fan DHW	Maximum fan speed on Domestic Hot Water	1400 - 7500 Rpm	4100	5400	5100	5600	6300	6800
GP007	Fan RPM Max CH	Maximum fan speed during Central Heating mode	1400 - 7500 Rpm	4100	5400	5100	5600	6300	6800
GP008	Fan RPM Min	Minimum fan speed during Central Heating + Domestic Hot Water mode	1000 - 4000 Rpm	1550	1550	1600	1600	1600	1750
GP009	Fan RPM Start	Fan speed at appliance start	1400 - 4000 Rpm	2500	2500	2500	2500	2500	2500

7.2.2 Adjusting to a different gas type

**Warning**

Only a qualified installer may carry out the following operations.

**Important**

If the boiler is adapted to another gas type, this must be stated on the sticker supplied. This sticker must be affixed next to the data plate.

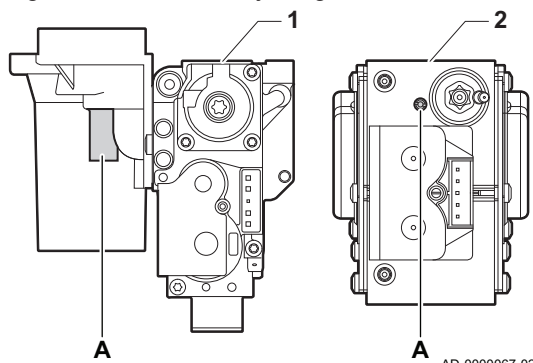
Before operating with a different type of gas, carry out the following steps.

■ Adjusting the gas valve unit for propane

**Important**

For the Quinta Ace 90 boiler; replace the current gas valve unit with the propane gas valve unit according to the instructions supplied with the propane conversion kit.

Fig.44 Position of adjusting screw A



- 1 Gas valve unit on the Quinta Ace 30 - 45 - 55 - 65 - 90
- 2 Gas valve unit on the Quinta Ace 115

AD-0000067-02

- Using adjusting screw **A**, adjust the factory setting to the setting for propane. The rotations for each boiler type are described in the table.

Tab.30 Settings for propane

Boiler type	Action
Quinta Ace 30	Rotate the adjusting screw A on the venturi 3½ turns in a clockwise direction
Quinta Ace 45	Rotate the adjusting screw A on the venturi 4¾ turns in a clockwise direction
Quinta Ace 55	Rotate the adjusting screw A on the venturi 6½ turns in a clockwise direction
Quinta Ace 65	Rotate the adjusting screw A on the venturi 6½ turns in a clockwise direction
Quinta Ace 115	Rotate the adjusting screw A in a clockwise direction until it is closed, then: Rotate the adjusting screw A on the gas valve unit 3½–4 turns in an anticlockwise direction


■ Adjusting fan speed parameters for different gas types



The factory fan speed settings can be adjusted for a different type of gas at installer level.

►►  > Parameters, counters, signals > Parameters



Use the rotary knob to navigate.

Use the  button to confirm your selection.

- Enable Installer access.
 - Select the tile .
 - Enter code: **0012**.
- Select the tile .
- Select **Parameters, counters, signals**.
- Select **Parameters**.
- Select the required parameter.
- Change the setting.

■ Fan speed for different gas types

- Adjust the fan speed (if necessary) for the gas type used according to the table below. The setting can be changed with a parameter setting. If a boiler is not suitable for a certain gas type, it is indicated with "-" in the table.

Tab.31 Adjustment for gas type G31 (propane)

Code	Display text	Description	Adjustment range	30	45	55	65	90	115
DP003	Abs. max fan DHW	Maximum fan speed on Domestic Hot Water	1400 - 7500 Rpm	3800	5100	4800	5400	6000	6700
GP007	Fan RPM Max CH	Maximum fan speed during Central Heating mode	1400 - 7500 Rpm	3800	5100	4800	5400	6000	6700
GP008	Fan RPM Min	Minimum fan speed during Central Heating + Domestic Hot Water mode	1000 - 4000 Rpm	1550	1550	1500	1600	2000	1800
GP009	Fan RPM Start	Fan speed at appliance start	1400 - 4000 Rpm	2500	3000	2500	2500	2500	3500

- Check the setting of the gas/air ratio.

■ Fan speeds for BREEAM compliance

To comply with the BREEAM regulation, the fan speeds need to be adjusted.

**Warning**

For the Quinta Ace 115, a flue gas pressure switch must be fitted before setting the fan speeds for BREEAM. This switch has a switch value of 600 Pa and protects against high flue pressures.

1. Adjust the fan speed according to the tables below. The setting can be changed with a parameter setting.

Tab.32 Adjustment for BREEAM with gas type G20 (H gas)

Code	Display text	Description	Adjustment range	30	45	55	65	90	115
DP003	Abs. max fan DHW	Maximum fan speed on Domestic Hot Water	1400 - 7500 Rpm	4100	5800	5600	6100	6600	7300
GP007	Fan RPM Max CH	Maximum fan speed during Central Heating mode	1400 - 7500 Rpm	4100	5800	5600	6100	6600	7300
GP008	Fan RPM Min	Minimum fan speed during Central Heating + Domestic Hot Water mode	1000 - 4000 Rpm	1550	1550	1650	1600	1600	1750
GP009	Fan RPM Start	Fan speed at appliance start	1400 - 4000 Rpm	2500	2500	2500	2500	2500	2500

Tab.33 Adjustment for BREEAM with gas type G31 (propane)

Code	Display text	Description	Adjustment range	30	45	55	65	90	115
DP003	Abs. max fan DHW	Maximum fan speed on Domestic Hot Water	1400 - 7500 Rpm	4100	5700	5600	6200	6500	7300
GP007	Fan RPM Max CH	Maximum fan speed during Central Heating mode	1400 - 7500 Rpm	4100	5700	5600	6200	6500	7300
GP008	Fan RPM Min	Minimum fan speed during Central Heating + Domestic Hot Water mode	1000 - 4000 Rpm	1550	1550	1650	1650	2100	1800
GP009	Fan RPM Start	Fan speed at appliance start	1400 - 4000 Rpm	2500	3000	2500	2500	2500	3500

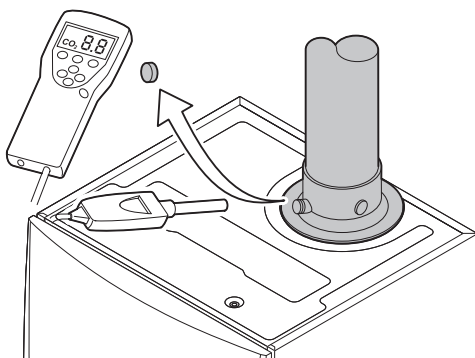
2. Check the setting of the gas/air ratio.

**Important**

Make sure to apply the O₂ values specified for BREEAM.

7.2.3 Checking and setting the gas/air ratio

Fig.45 Flue gas measuring point



AD-0000069-01

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.

**Important**

- The flue gas analyser must have a minimum accuracy of $\pm 0.25\%$ O₂.
- The flue gas analyser must meet the requirements of BS 7927 or BS-EN 503793 and be calibrated according to the manufacturer's requirements.

- Measure the percentage of O₂ in the flue gases. Take measurements at full load and at part load.

**Important**

Measurements must be taken with the front casing off.

**Important**

- This appliance is suitable for category I_{2H} containing up to 20% Hydrogen gas (H₂). Due to variations in the H₂ percentage, the O₂ percentage can vary over time. (For example: a percentage of 20% H₂ in the gas can lead to an increase of 1,5% of O₂ in the flue gasses)
- A significant adjustment of the gas valve may be needed. Adjustment can be done using the standard O₂ values of the gas used.

■ Performing the full load test

- Select the tile [👤].
⇒ The **Change load test mode** menu appears.
- Select the test **Medium power**.

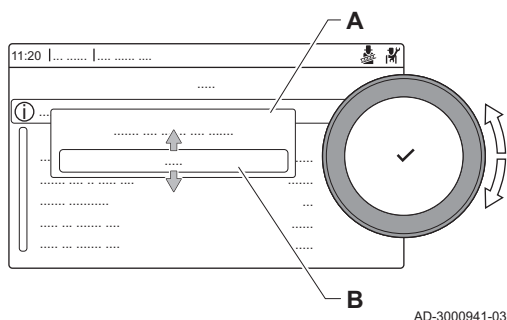
A Change load test mode

B Medium power

⇒ The full load test starts. The selected load test mode is shown in the menu and the icon 👤 appears in the top right of the screen.

- Check the load test settings and adjust if necessary.
⇒ Only the parameters shown in bold can be changed.

Fig.46 Full load test



AD-3000941-03

■ Checking/setting values for O₂ at full load

- Gas valve unit on the Quinta Ace 30 - 45 - 55 - 65 - 90
- Quinta Ace 115

- Measure the percentage of O₂ in the flue gases.
- Compare the measured value with the checking values in the table.
- 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.

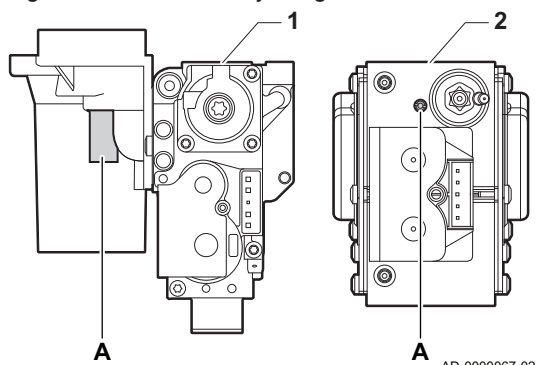
- Using adjusting screw **A**, adjust the percentage of O₂ for the gas type being used to the nominal value. This should always be inside the highest and lowest setting limit.

If a boiler is not suitable for a certain gas type, it is indicated with "-" in the table.

Tab.34 Checking/setting values for O₂ at full load for G20 (H gas)

Values at full load for G20 (H gas)	O ₂ (%) ⁽¹⁾
Quinta Ace 30	4,3 - 4,8 ⁽¹⁾
Quinta Ace 45	4,3 - 4,8 ⁽¹⁾
Quinta Ace 55	4,3 - 4,8 ⁽¹⁾
Quinta Ace 65	4,3 - 4,8 ⁽¹⁾
Quinta Ace 90	4,3 - 4,7 ⁽¹⁾
Quinta Ace 115	4,2 - 4,7 ⁽¹⁾
(1) Nominal value	

Fig.47 Position of adjusting screw A



AD-0000067-02

Tab.35 Checking/setting values for O₂ at full load for BREEAM with G20 (H gas)

Values at full load for G20 (H gas)	O ₂ (%) ⁽¹⁾⁽²⁾
Quinta Ace 30	4,9 - 5,4 ⁽¹⁾
Quinta Ace 45	5,6 - 6,1 ⁽¹⁾
Quinta Ace 55	5,6 - 6,1 ⁽¹⁾
Quinta Ace 65	5,4 - 5,9 ⁽¹⁾
Quinta Ace 90	5,3 - 5,7 ⁽¹⁾
Quinta Ace 115	5,6 - 6,1 ⁽¹⁾
(1) Nominal value (2) These values are only applicable when the fan speeds have been set for BREEAM.	

Tab.36 Checking/setting values for O₂ at full load for G31 (propane)

Values at full load for G31 (propane)	O ₂ (%) ⁽¹⁾
Quinta Ace 30	4,4 - 4,9 ⁽¹⁾
Quinta Ace 45	4,4 - 4,9 ⁽¹⁾
Quinta Ace 55	4,1 - 4,6 ⁽¹⁾
Quinta Ace 65	4,6 - 4,9 ⁽¹⁾
Quinta Ace 90	4,9 - 5,2 ⁽¹⁾
Quinta Ace 115	4,9 - 5,4 ⁽¹⁾
(1) Nominal value	

Tab.37 Checking/setting values for O₂ at full load for BREEAM with G31 (propane)

Values at full load for G31 (propane)	O ₂ (%) ^{(1) (2)}
Quinta Ace 30	5,9 - 6,4 ⁽¹⁾
Quinta Ace 45	6,2 - 6,7 ⁽¹⁾
Quinta Ace 55	6,2 - 6,7 ⁽¹⁾
Quinta Ace 65	6,6 - 6,9 ⁽¹⁾
Quinta Ace 90	6,3 - 6,6 ⁽¹⁾
Quinta Ace 115	6,1 - 6,6 ⁽¹⁾
(1) Nominal value (2) These values are only applicable when the fan speeds have been set for BREEAM.	

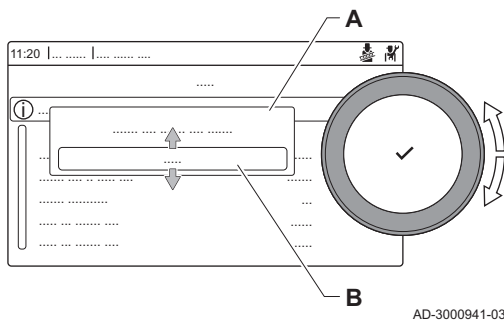
**Caution**

The O₂ values at full load must be lower than the O₂ values at part load.

■ Performing the low load test

1. If the full load test is still running, press the ✓ button to change the load test mode.

Fig.48 Low load test



AD-3000941-03

- If the full load test was finished, select the tile [chimney icon] to restart the chimney sweep menu.

A Change load test mode

B Low power

- Select the **Low power** test in the menu **Change load test mode**.
⇒ The low load test starts. The selected load test mode is shown in the menu and the icon [chimney icon] appears in the top right of the screen.
- Check the load test settings and adjust if necessary.
⇒ Only the parameters shown in bold can be changed.
- End the low load test by pressing the [stop] button.
⇒ The message **Running load test(s) stopped!** is displayed.

■ Checking/setting values for O₂ at part load

- Gas valve unit on the Quinta Ace 30 - 45 - 55 - 65 - 90
- Quinta Ace 115

- Measure the percentage of O₂ in the flue gases.
- Compare the measured value with the checking values in the table.
- 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.

- Using adjusting screw **B**, adjust the percentage of O₂ for the gas type being used to the nominal value. This should always be inside the highest and lowest setting limit.
- Set the boiler back to the normal operating status.
If a boiler is not suitable for a certain gas type, it is indicated with "-" in the table.

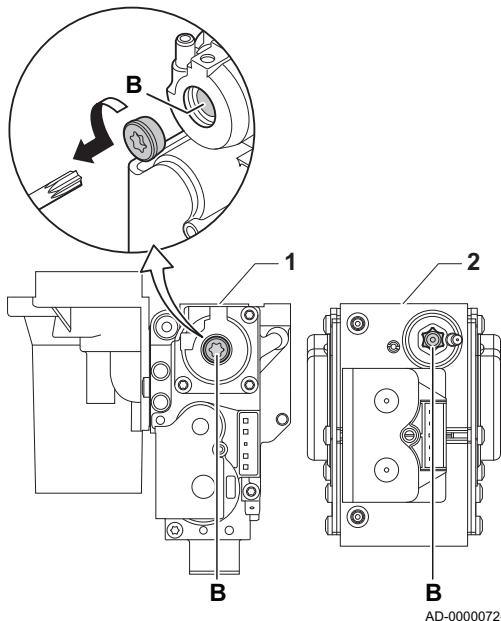
Tab.38 Checking/setting values for O₂ at part load for G20 (H gas)

Values at part load for G20 (H gas)	O ₂ (%) ⁽¹⁾
Quinta Ace 30	5,7 ⁽¹⁾ - 6,2
Quinta Ace 45	5,7 ⁽¹⁾ - 6,2
Quinta Ace 55	4,8 ⁽¹⁾ - 5,3
Quinta Ace 65	4,8 ⁽¹⁾ - 5,3
Quinta Ace 90	5,2 ⁽¹⁾ - 5,6
Quinta Ace 115	5,6 ⁽¹⁾ - 6,1
(1) Nominal value	

Tab.39 Checking/setting values for O₂ at part load for BREEAM with G20 (H gas)

Values at part load for G20 (H gas)	O ₂ (%) ⁽¹⁾⁽²⁾
Quinta Ace 30	6,1 ⁽¹⁾ - 6,6
Quinta Ace 45	6,5 ⁽¹⁾ - 7,0
Quinta Ace 55	6,1 ⁽¹⁾ - 6,6
Quinta Ace 65	5,9 ⁽¹⁾ - 6,4
Quinta Ace 90	5,7 ⁽¹⁾ - 6,1
Quinta Ace 115	6,1 ⁽¹⁾ - 6,6
(1) Nominal value	
(2) These values are only applicable when the fan speeds have been set for BREEAM.	

Fig.49 Position of adjusting screw B



AD-0000072-02

Tab.40 Checking/setting values for O₂ at part load for G31 (propane)

Values at part load for G31 (propane)	O ₂ (%) ⁽¹⁾
Quinta Ace 30	5,4 ⁽¹⁾ - 5,9
Quinta Ace 45	5,7 ⁽¹⁾ - 6,2
Quinta Ace 55	5,1 ⁽¹⁾ - 5,6
Quinta Ace 65	5,4 ⁽¹⁾ - 5,7
Quinta Ace 90	5,7 ⁽¹⁾ - 6,0
Quinta Ace 115	5,8 ⁽¹⁾ - 6,3
(1) Nominal value	

Tab.41 Checking/setting values for O₂ at part load for BREEAM with G31 (propane)

Values at part load for G31 (propane)	O ₂ (%) ⁽¹⁾⁽²⁾
Quinta Ace 30	6,7 ⁽¹⁾ - 7,2
Quinta Ace 45	7,1 ⁽¹⁾ - 7,6
Quinta Ace 55	6,7 ⁽¹⁾ - 7,2
Quinta Ace 65	6,9 ⁽¹⁾ - 7,2
Quinta Ace 90	7,4 ⁽¹⁾ - 7,7
Quinta Ace 115	6,9 ⁽¹⁾ - 7,4
(1) Nominal value	
(2) These values are only applicable when the fan speeds have been set for BREEAM.	

**Caution**

The O₂ values at part load must be higher than the O₂ values at full load.

7.3 Final instructions

1. Remove the measuring equipment.
2. Screw the cap on to the flue gas measuring point.
3. Seal the gas valve unit.
4. Put the front casing back.
5. Heat up the central heating system to approximately 70°C.
6. Switch the boiler off.
7. Vent the central heating system after approx. 10 minutes.
8. Turn on the boiler.
9. Check the water pressure. If necessary, top up the central heating system.

Fig.50 Example filled-in sticker

Adjusted for / Réglée pour /
 Ingesteld op / Eingestellt auf
 / Regolato per / Ajustado
 para / Ρυθμιζόμενο για /
 Nastawiony na / настроен
 для / Reglat pentru /
 настроен за / ayarlanmıştır /
 Nastavljen za / beállítva/
 Nastaveno pro / Asetettu
 kaasulle / Justert for/
 indstillet til/ ل طيبخ :

☒ Gas 620
20 mbar

☒ C_{(10)3(X)}
☐ C_{(12)3(X)}
☐

Parameters / Paramètres /
 Parameter / Parametri /
 Parámetros / Παράμετροι /
 Parametry / Параметри /
 Parametrii / Параметри /
 Parametreler / Paraméterek
 / Parametrit / Parametere /
 Parametre / تامل عمل :

DP003 - 3300
GP007 - 3300
GP008 - 2150
GP009 -

AD-3001124-01

10. Fill in the following data on the sticker included, and attach it next to the data plate on the appliance.

- The gas supply pressure;
- The flue type, if set to overpressure application;
- The parameters modified for the changes mentioned above;
- Any fan speed parameters modified for other purposes.

11. Optimise the settings as required for the system and user preferences.



See

For more information; Settings, page 43 and User instructions, page 65.

12. Save the commissioning settings on the control panel, so they can be restored after a reset.
13. Instruct the user in the operation of the system, boiler and controller.
14. Inform the user of the maintenance to be performed.
15. Hand over all manuals to the user.

7.3.1 Saving the commissioning settings

You can save all current settings on the control panel. These settings can be restored if necessary, for example after replacement of the control unit.

▶▶ ≡ > **Advanced Service Menu** > **Save as commissioning settings**



Use the rotary knob to navigate.

Use the ✓ button to confirm your selection.

1. Press the ≡ button.
2. Select **Advanced Service Menu**.
3. Select **Save as commissioning settings**.
4. Select **Confirm** to save the settings.

When you have saved the commissioning settings, the option **Revert commissioning settings** becomes available in the **Advanced Service Menu**.

8 Settings

8.1 Introduction to parameter codes

Fig.51 Code on a HMI T-control

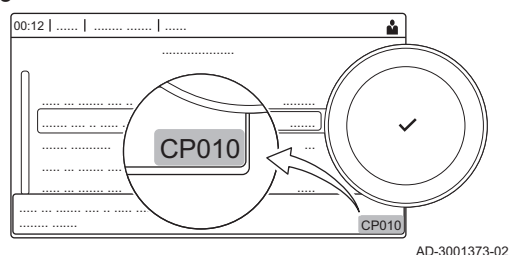


Fig.52 First letter

CP010

AD-3001375-01

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.

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.53
Second letter



The second letter is the type.

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

Fig.54
Number



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

8.2
Searching the parameters, counters and signals

You can search and change data points (Parameters, counters, signals) of the appliance, connected control boards and sensors.

▶▶ ≡ > **Installation Setup > Search datapoints**

- 💡 Use the rotary knob to navigate.
- Use the ✓ button to confirm your selection.

- Press the ≡ button.
- Select **Installation Setup**.
- Select **Search datapoints**.
- Select the search criteria (code):
 - Select the first letter (datapoint category).
 - Select the second letter (datapoint type).
 - Select the first number.
 - Select the second number.
 - Select the third number.

- 💡 The * symbol can be used to indicate any character within the search field.

Fig.55
Search

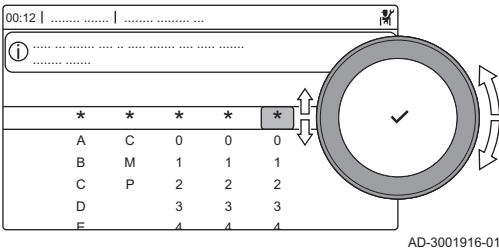
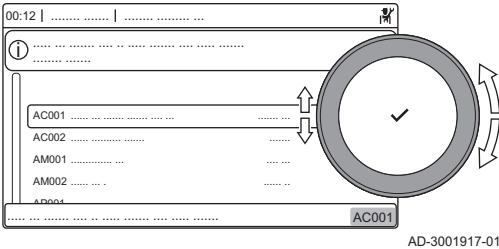


Fig.56
List of datapoints



- ⇒ The list of datapoints appears in the display. Only the first 30 results are shown when searching.

- Select the desired datapoint.

8.3
List of parameters

8.3.1
CU-GH08 control unit parameters

All tables show the factory setting for the parameters.



Important

The tables also list parameters that are only applicable if the boiler is combined with other equipment.

Tab.42
Navigation for basic installer level

Level	Menu path
Basic installer	≡ > Installation Setup > CU-GH08 > Submenu ⁽¹⁾ > Parameters, counters, signals > Parameters > General
(1) See the column "Submenu" in the following table for the correct navigation. The parameters are grouped in specific functionalities.	

Tab.43 Factory settings at basic installer level

Code	Display text	Description	Adjustment range	Subme- nu	30	45	55	65	90	115
AP016	CH function on	Enable central heating heat demand processing	0 = Off 1 = On	Gas fired appliance	1	1	1	1	1	1
AP017	DHW function on	Enable domestic hot water heat demand processing	0 = Off 1 = On	Gas fired appliance	1	1	1	1	1	1
AP073	Summer Winter	Outdoor temperature: upper limit for heating	10 - 30 °C	Outdoor temperature	22	22	22	22	22	22
AP074	Force summer mode	The heating is stopped. Hot water is maintained. Force Summer Mode	0 = Off 1 = On	Outdoor temperature	0	0	0	0	0	0
AP083	Enable master func	Enable the master functionality of this device on the S-Bus for system control	0 = No 1 = Yes	Mandatory bus master	0	0	0	0	0	0
AP089	Installer name	Name of the installer		Mandatory bus master	None	None	None	None	None	None
AP090	Installer phone	Telephone number of the installer		Mandatory bus master	0	0	0	0	0	0
AP107	Color display Mk2	Color display Mk2	0 = White 1 = Red 2 = Blue 3 = Green 4 = Orange 5 = Yellow	Mandatory bus master	2	2	2	2	2	2
CP000	MaxZoneT-FlowSet-point	Maximum Flow Temperature setpoint zone	0 - 90 °C	CIRCA	80	80	80	80	80	80
CP080 CP081 CP082 CP083 CP084 CP085	User T.Room Activity	Room setpoint temperature of the user zone activity	5 - 30 °C	CIRCA	16 20 6 21 22 20	16 20 6 21 22 20	16 20 6 21 22 20	16 20 6 21 22 20	16 20 6 21 22 20	16 20 6 21 22 20
CP200	Manu ZoneRoom-TempSet	Manually setting the room temperature setpoint of the zone	5 - 30 °C	CIRCA	20	20	20	20	20	20
CP320	Operating-ZoneMode	Operating mode of the zone	0 = Scheduling 1 = Manual 2 = Off	CIRCA	1	1	1	1	1	1
CP510	Temporary Room Setp	Temporary room setpoint per zone	5 - 30 °C	CIRCA	20	20	20	20	20	20
CP550	Zone, fire place	Fire Place mode is active	0 = Off 1 = On	CIRCA	0	0	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	CIRCA	3	3	3	3	3	3
DP060	DHW time-prog. select	Time program selected for DHW.	0 = Schedule 1 1 = Schedule 2 2 = Schedule 3	Internal DHW	0	0	0	0	0	0

Code	Display text	Description	Adjustment range	Submenu	30	45	55	65	90	115
DP070	DHW comfort setpoint	Comfort temperature setpoint for the Domestic Hot Water tank	40 - 65 °C	Internal DHW	60	60	60	60	60	60
DP080	DHW reduced setpoint	Reduced temperature setpoint from the Domestic Hot Water tank	7 - 50 °C	Internal DHW	15	15	15	15	15	15
DP200	DHW mode	DHW primary mode current working setting	0 = Scheduling 1 = Manual 2 = Off	Internal DHW	1	1	1	1	1	1
DP337	DHW holiday setpoint	Holiday temperature setpoint from the Domestic Hot Water tank	10 - 60 °C	Internal DHW	10	10	10	10	10	10

Tab.44 Navigation for installer level

Level	Menu path
Installer	≡ > Installation Setup > CU-GH08 > Submenu ⁽¹⁾ > Parameters, counters, signals > Parameters > General
(1) See the column "Submenu" in the following table for the correct navigation. The parameters are grouped in specific functionalities.	

Tab.45 Factory settings at installer level

Code	Display text	Description	Adjustment range	Submenu	30	45	55	65	90	115
AP001	BL function	BL input function selection	1 = Full blocking 2 = Partial blocking 3 = User reset locking	Gas fired appliance	1	1	1	1	1	1
AP003	Flue valve wait time	Heat generator wait time to open the flue gas	0 - 255 Sec	Gas fired appliance	0	0	0	0	0	0
AP006	Min. water pressure	Appliance will report low water pressure below this value	0 - 6 bar	Gas fired appliance	0.8	0.8	0.8	0.8	0.8	0.8
AP008	Release wait time	Waiting time after closing the release contact to start the heat generator.	0 - 255 Sec	Gas fired appliance	0	0	0	0	0	0
AP009	Service hours	Number of heat generator operating hours for raising a service notification	0 - 51000 Hours	Gas fired appliance	6000	6000	6000	6000	6000	6000
AP010	Service notification	Select the type of service notification	0 = None 1 = Custom notification 2 = ABC notification	Gas fired appliance	2	2	2	2	2	2
AP011	Service hours mains	Hours powered to raise a service notification	0 - 51000 Hours	Gas fired appliance	3500 0	3500 0	3500 0	3500 0	3500 0	3500 0
AP013	Release function	Function of the release input contact	0 = Disabled 1 = Full blocking 2 = Central heat blocked	Gas fired appliance	1	1	1	1	1	1
AP018	Sets release input	Configuration of the release input contact (normally open or normally closed)	0 = Normally open 1 = Normally closed	Gas fired appliance	0	0	0	0	0	0
AP079	Building Inertia	Inertia of the building used for heat up speed	0 - 15	Outdoor temperature	3	3	3	3	3	3

Code	Display text	Description	Adjustment range	Submenu	30	45	55	65	90	115
AP080	Frost min out temp	Outside temperature below which the antifreeze protection is activated	-60 - 25 °C	Outdoor temperature	-10	-10	-10	-10	-10	-10
AP082	Enable daylight save	Enable daylight saving for the system to save energy during winter	0 = Off 1 = On	Mandatory bus master	1	1	1	1	1	1
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	Outdoor temperature	0	0	0	0	0	0
AP098	BL1 contact config.	BL1 input contact configuration	0 = Open 1 = Closed	Gas fired appliance	1	1	1	1	1	1
AP108	OutsideSensorEnabled	Enable the function Outside Sensor	0 = Auto 1 = Wired sensor	Outdoor temperature	0	0	0	0	0	0
CP020	Zone Function	Functionality of the zone	0 = Disable 1 = Direct	CIRCA	1	1	1	1	1	1
CP060	RoomT. Holiday	Wished room zone temperature on holiday period	5 - 20 °C	CIRCA	6	6	6	6	6	6
CP070	MaxReduceRoomT.Lim	Max Room Temperature limit of the circuit in reduced mode, that allows switching to comfort mode	5 - 30 °C	CIRCA	16	16	16	16	16	16
CP210	Zone HCZP Comfort	Comfort footpoint of the temperature of heat curve of the circuit	15 - 90 °C	CIRCA	15	15	15	15	15	15
CP220	Zone HCZP Reduced	Reduced footpoint of the temperature of heat curve of the circuit	15 - 90 °C	CIRCA	15	15	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	1.5	1.5
CP340	TypeReducedNight-Mode	Type of reduced night mode, stop or maintain heating of circuit	0 = Stop heat demand 1 = Continue heat demand	CIRCA	1	1	1	1	1	1
CP470	Zone screed drying	Setting of the screed drying program of the zone	0 - 30 Days	CIRCA	0	0	0	0	0	0
CP480	ScreedStart-Temp	Setting of the start temperature of the screed drying program of the zone	20 - 50 °C	CIRCA	20	20	20	20	20	20
CP490	ScreedStop-Temp	Setting of the stop temperature of the screed drying program of the zone	20 - 50 °C	CIRCA	20	20	20	20	20	20
CP570	ZoneTime-Prog Select	Time Program of the zone selected by the user	0 = Schedule 1 1 = Schedule 2 2 = Schedule 3	CIRCA	0	0	0	0	0	0
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	3	3

Code	Display text	Description	Adjustment range	Submenu	30	45	55	65	90	115
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	2	2
CP750	MaxZone Preheat time	Maximum zone preheat time	0 - 240 Min	CIRCA	90	90	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	0	0
DP004	Legionella calor.	Legionella mode protection calorifier	0 = Disabled 1 = Weekly 2 = Daily	Internal DHW Tank DHW	1	1	1	1	1	1
DP007	Dhw 3wv Standby	Position of three way valve during standby	0 = CH position 1 = DHW position	Tank DHW	0	0	0	0	0	0
DP140	DHW load type	DHW load type (0 : Combi, 1 : Solo)	0 = Combi 1 = Solo 2 = Layered cylinder 3 = Process heat 4 = External	Internal DHW Tank DHW Gas fired appliance	1	1	1	1	1	1
DP160	DHW Anti-Leg Setpoint	Setpoint for DHW anti legionella	50 - 90 °C	Internal DHW	70	70	70	70	70	70
DP410	DHW anti-leg runtime	Duration of the DHW anti-legionella program	0 - 600 Min	Internal DHW	60	60	60	60	60	60
DP430	Start day anti-leg	Day to start the DHW anti-legionella program	1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday	Internal DHW	6	6	6	6	6	6
DP440	Start time anti-leg	Starting time for the DHW anti-legionella program	0 - 143 HoursMinutes	Internal DHW	18	18	18	18	18	18
PP015	CH Pump postrun time	Central heating pump post run time	0 - 99 Min	Gas fired appliance	1	1	1	1	1	1

Tab.46 Navigation for advanced installer level

Level	Menu path
Advanced installer	≡ > Installation Setup > CU-GH08 > Submenu ⁽¹⁾ > Parameters, counters, signals > Parameters > Advanced
(1) See the column "Submenu" in the following table for the correct navigation. The parameters are grouped in specific functionalities.	

Tab.47 Factory settings at advanced installer level

Code	Display text	Description	Adjustment range	Subme- nu	30	45	55	65	90	115
AP002	Manual Heat Demand	Enable manual heat demand function	0 = Off 1 = With setpoint	Gas fired appliance	0	0	0	0	0	0
AP026	Setpoint manual HD	Flow temperature setpoint for manual heat demand	10 - 90 °C	Gas fired appliance	40	40	40	40	40	40
AP056	Outdoor sensor	Enable outdoor sensor	0 = No outside sensor 1 = AF60 2 = QAC34	Outdoor temperature	1	1	1	1	1	1
AP102	Boiler Pump function	Configuration of the boiler pump as zone pump or system pump (feed low-loss header)	0 = No 1 = Yes	Gas fired appliance	0	0	0	0	0	0
CP010	Tflow setpoint zone	Zone flow temperature setpoint, used when the zone is set to a fixed flow setpoint.	0 - 90 °C	CIRCA	90	90	90	90	90	90
CP130	T.Outdoor-ToZone	Assigning the outdoor sensor to zone ...	0 - 4	CIRCA	0	0	0	0	0	0
CP240	ZoneRoomUnitInfl	Adjustment of the influence of the zone room unit	0 - 10	CIRCA	3	3	3	3	3	3
CP250	CalSondeAmbZone	Calibration of Zone Room Unit	-5 - 5 °C	CIRCA	0	0	0	0	0	0
CP770	Zone Buffered	The zone is after a Buffer tank	0 = No 1 = Yes	CIRCA	0	0	0	0	0	0
DP003	Abs. max fan DHW	Maximum fan speed on Domestic Hot Water	1400 - 7500 Rpm	Gas fired appliance	4100	5400	5100	5600	6300	6700
DP005	Calorifier Tf offset	Flow setpoint offset for loading calorifier	0 - 50 °C	Tank DHW	20	20	20	20	20	20
DP006	Hyst calorifier	Hysteresis to start heating calorifier	2 - 15 °C	Tank DHW	5	5	5	5	5	5
DP020	Postrun DHW pump/3wv	Post run time of the DHW pump/3 way valve after DHW production	0 - 99 Sec	Gas fired appliance	10	10	10	10	10	10
DP034	DhwCalorifierOffset	Offset for calorifier sensor	0 - 10 °C	Tank DHW	2	2	2	2	2	2
GP007	Fan RPM Max CH	Maximum fan speed during Central Heating mode	1400 - 7500 Rpm	Gas fired appliance	4100	5400	5100	5600	6300	6800
GP008	Fan RPM Min	Minimum fan speed during Central Heating + Domestic Hot Water mode	1000 - 4000 Rpm	Gas fired appliance	1550	1550	1600	1600	1600	1750
GP009	Fan RPM Start	Fan speed at appliance start	1400 - 4000 Rpm	Gas fired appliance	2500	2500	2500	2500	2500	2500
GP010	GPS Check	Gas Pressure Switch check on/off	0 = No 1 = Yes	Gas fired appliance	0	0	0	0	0	0
GP021	Temp diff Modulating	Modulate back when delta temperature is larger than this threshold	10 - 40 ⁽¹⁾ °C	Gas fired appliance	25	25	25	25	25	20
GP082	Chimney over DHW	Enable the DHW circuit during chimney sweep	0 = Off 1 = On	Gas fired appliance	0	0	0	0	0	0

Code	Display text	Description	Adjustment range	Submenu	30	45	55	65	90	115
PP014	ChPumpD-TReduction	Reduction of temperature delta modulating for pump modulation	0 - 40 °C	Gas fired appliance	18	18	18	18	18	18
PP016	Max. CH pump speed	Maximum central heating pump speed (%)	30 - 100 %	Gas fired appliance	100	100	100	100	100	100
PP017	ChPump-SpeedMax-Factor	Maximum central heating at minimum load as percentage of max pump speed	0 - 100 %	Gas fired appliance	100	100	100	100	100	100
PP018	Min CH pump speed	Minimum central heating pump speed (%)	30 - 100 %	Gas fired appliance	30	30	30	30	30	30
(1) For the Quinta Ace115, this value is 35°C										

9 Maintenance

9.1 Maintenance regulations



Important

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



Important

Adjust the frequency of inspection and service to the conditions of use. This applies especially if the boiler is:

- In constant use (for specific processes).
- Used with a low supply temperature.
- Used with a high ΔT .



Caution

- Replace defective or worn parts with original spare parts. Not doing so will void warranty.
- 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.

9.2 Maintenance message

The boiler display will clearly indicate that a service is required at the appropriate time. Use the automatic maintenance message for preventive maintenance, to keep faults to a minimum. The service messages show which service kit must be used. These service kits contain all parts and gaskets that are required for the relevant service. These service kits (A, B or C) put together by Remeha are available from spare parts suppliers.

**Important**

Maintenance messages must be followed up within 2 months.

**Important**

If the iSense or eTwist modulating thermostat is connected to the boiler, this thermostat can also display the maintenance message. Consult the thermostat manual.

**Caution**

Reset the maintenance message following every service.

**See**

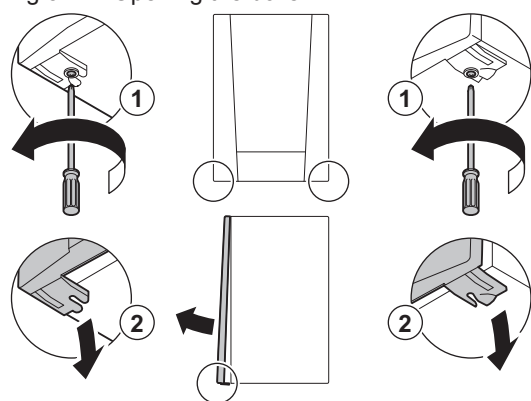
The service manual of the boiler.

**See also**

Additional documentation, page 8

9.3 Opening the boiler

Fig.57 Opening the boiler



AD-3001159-01

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

9.4 Standard inspection and maintenance operations

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

**See**

The boiler service manual for the specific maintenance work.

9.4.1 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.

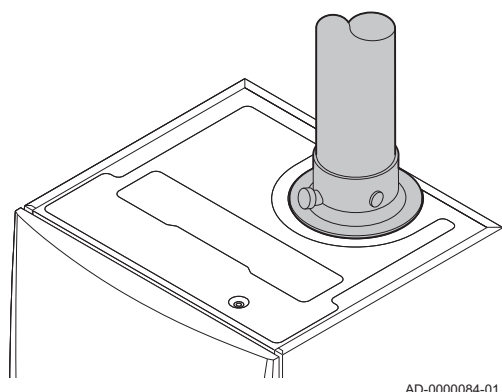
2. If necessary, top up the central heating system.

9.4.2 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 µA.

9.4.3 Checking the flue gas outlet/air supply connections

Fig.58 Checking flue gas outlet/air supply connections



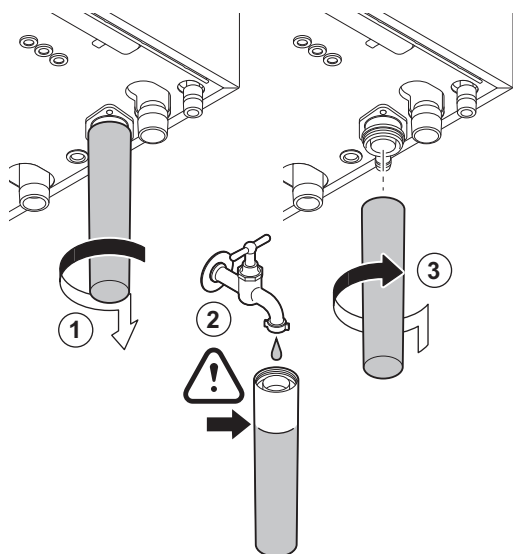
1. Check the flue gas outlet and air supply connections for condition and tightness.

9.4.4 Checking the combustion

Combustion is checked by measuring the O₂ percentage in the flue gas outlet duct.

9.4.5 Cleaning the siphon

Fig.59 Cleaning the siphon



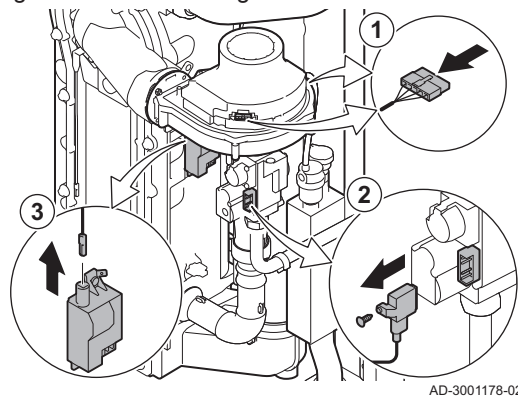
Danger

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.

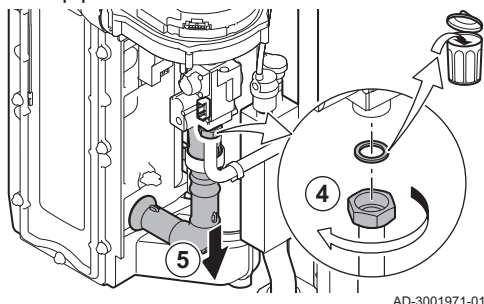
9.4.6 Checking the burner and cleaning the heat exchanger

Fig.60 Disconnecting the fan



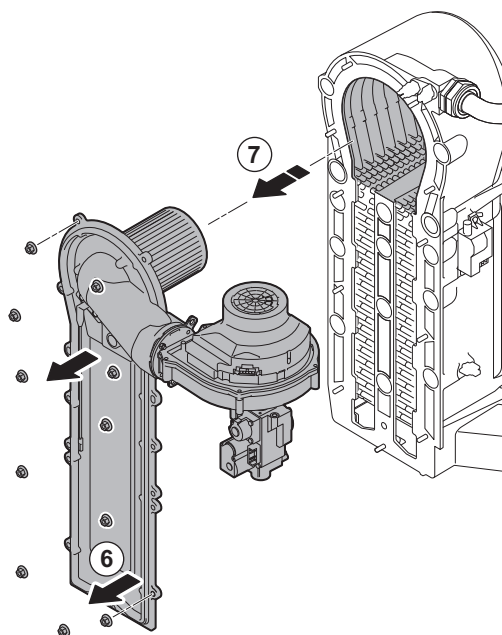
1. Disconnect the two fan plugs on the front and rear.
2. Remove the screwed-on plug from the gas control valve.
3. Remove the ignition electrode plug from the ignition transformer.

Fig.61 Removing the gas and air supply pipes



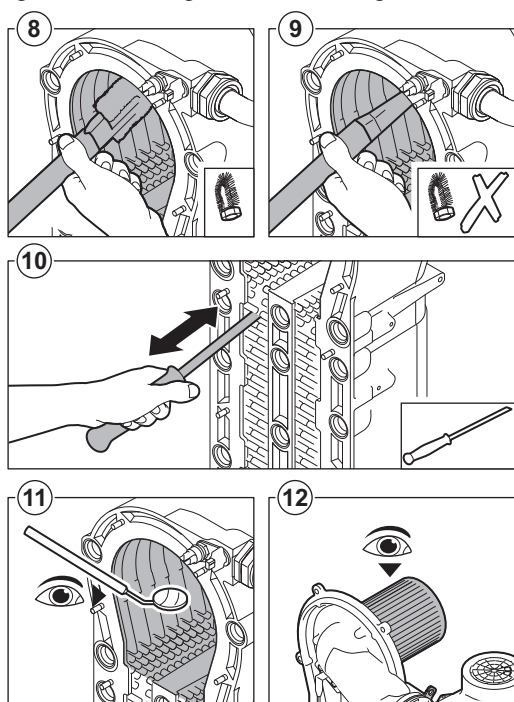
AD-3001971-01

Fig.62 Removing the front plate, fan and burner



AD-3001179-01

Fig.63 Cleaning the heat exchanger



AD-3001180-02

4. Unscrew the nut of the gas valve unit.
5. Remove the air inlet pipe from the venturi.

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

8. Use a vacuum cleaner fitted with a special end piece (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.

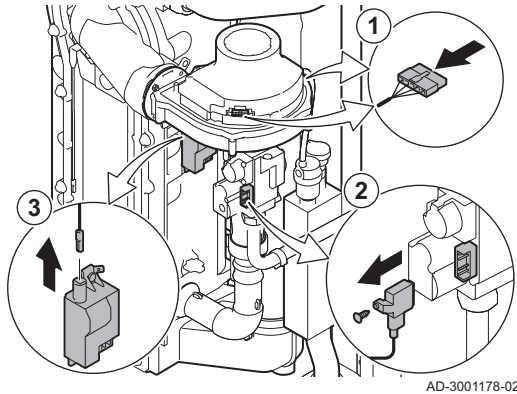
**Caution**

- 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.
- Remember to reconnect the fan plugs.
- Tighten the nut on the gas valve unit with a torque of 27.5 N·m.
- Tighten the front plate nuts with a torque of 10 N·m.

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

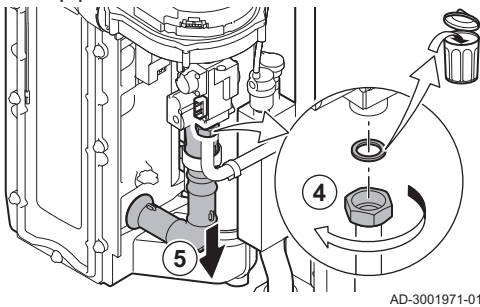
9.4.7 Checking the non-return valve

Fig.64 Disconnecting the fan



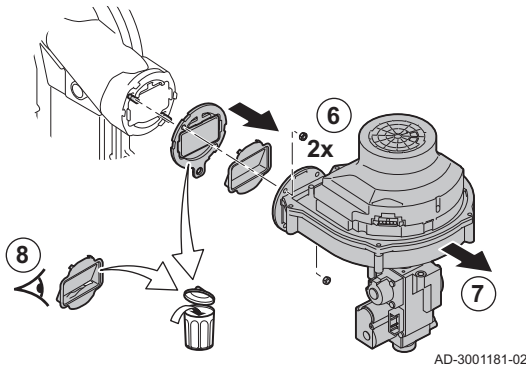
1. Disconnect the two fan plugs on the front and rear.
2. Remove the screwed-on plug from the gas control valve.
3. Remove the ignition electrode plug from the ignition transformer.

Fig.65 Removing the gas and air supply pipes



4. Unscrew the nut of the gas valve unit.
5. Remove the air inlet pipe from the venturi.

Fig.66 Checking the non-return valve



6. Unscrew the two fan nuts.
7. Remove the fan together with the gas control valve.
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 plugs.
- Tighten the nut on the gas valve unit with a torque of 27.5 N-m.
- Tighten the two fan nuts with a torque of 3.8 N-m.

9.5 Finalising work

1. Fit all removed parts in the reverse order, but do not close the casing yet.



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 all system and supply valves which were closed to carry out the maintenance.
5. Fill the central heating system with water if necessary.
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.
11. Set the boiler to full load and carry out a gas leak detection and a thorough visual check.
12. Set the boiler to normal operation.

13. Close the casing.

9.6 Disposal and recycling

Fig.67



Important

Removal and disposal of the boiler must be carried out by a qualified person in accordance with local and national regulations.

To remove the boiler, proceed as follows:

1. Cut the power supply to the boiler.
2. Shut off the gas supply.
3. Shut off the water supply.
4. Drain the system.
5. Remove the siphon.
6. Remove the air supply/flue gas outlet pipes.
7. Disconnect all pipes on the boiler.
8. Remove the boiler.

10 Troubleshooting

10.1 Error codes

The Quinta Ace is fitted with an electronic regulation and control unit. The heart of the control is a **e-Smart** microprocessor, which controls and also protects. In the event of an error, a corresponding code is displayed.

Tab.48 Error codes are displayed at three different levels

Code	Type	Description
A .00.00 ⁽¹⁾	Warning	The controls continue to operate, but the cause of the warning must be investigated. A warning can change into a blocking or lock-out.
H .00.00 ⁽¹⁾	Blocking	The controls will stop normal operation, and will check with set intervals if the cause of the blocking still exists. ⁽²⁾ Normal operation will resume when the cause of the blocking has been rectified. A blocking can become a lock-out.
E .00.00 ⁽¹⁾	Lock out	The controls will stop normal operation. The cause of the lock-out must be rectified and the controls must be reset manually.
<p>(1) The first letter indicates the type of error.</p> <p>(2) For some blocking errors, this checking interval is ten minutes. In those cases, it may seem that the controls do not start automatically. Wait ten minutes before resetting.</p>		

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



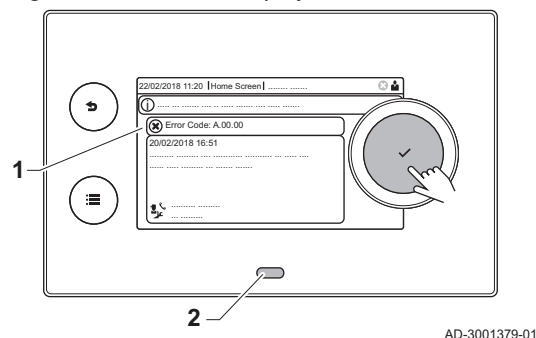
Important

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

10.1.1 Display of error codes

When an error occurs in the installation, the control panel will show the following:

Fig.68 Error code display on HMI T-control



- 1 The display will show a corresponding code and message.
- 2 The status LED of the control panel will show:
 - Continuous green = Normal operation
 - Flashing green = Warning
 - Continuous red = Blocking
 - Flashing red = Lock out

When an error occurs, proceed as follows:

1. Press and hold the ✓ button to reset the appliance.
⇒ The appliance starts up again.
2. If the error code reappears, correct the problem by following the instructions in the error code tables.



Important


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

⇒ The error code remains visible until the problem is solved.

3. Note the error code when the problem cannot be solved and contact your installer.

10.1.2 Warning

Tab.49 Warning codes

Code	Display text	Description	Solution
A.00.34	TOutside Missing	Outside temperature sensor was expected but not detected	Outdoor sensor not detected: <ul style="list-style-type: none"> • Outdoor sensor is not connected: Connect the sensor • Outdoor sensor is not connected correctly: Connect the sensor correctly
A.00.42	WaterPressureMissing	Water pressure sensor was expected but not detected	Water pressure sensor not detected <ul style="list-style-type: none"> • Water pressure sensor is not connected: connect the sensor • Water pressure sensor is not connected correctly: connect the sensor correctly
A.01.23	Poor Combustion	Poor combustion	Configuration error: No flame during operation: <ul style="list-style-type: none"> • No ionisation current: <ul style="list-style-type: none"> - Purge the gas supply to remove air. - Check whether the gas tap is properly open. - Check the gas supply pressure. - Check the operation and setting of the gas valve unit. - Check that the air inlet and flue gas discharge flues are not blocked. - Check that there is no recirculation of flue gases.
A.02.06	Water Press Warning	Water Pressure Warning active	Water pressure warning: <ul style="list-style-type: none"> • Water pressure too low; check the water pressure
A.02.18	OBD Error	Object Dictionary Error	Configuration error: <ul style="list-style-type: none"> • Reset CN1 and CN2 <div>  See The data plate for the CN1 and CN2 values. </div>

Code	Display text	Description	Solution
A.02.33	AF top comm err	Auto filling top communication has exceeded feedback time	<p>The maximum time for refilling the system automatically has been exceeded:</p> <ul style="list-style-type: none"> No or low water pressure in the supply line: check that the main water valve is fully open. Water leakage from the boiler or system: check the system for leaks. Check that the maximum time for refilling is suitable for the system: Check parameter AP069. Check that the maximum water pressure for refilling is suitable for this system: Check parameter AP070. <p>i Important The pressure difference between the minimum (parameter AP006) and maximum (parameter AP070) water pressure must be high enough to prevent there being too short a time between two filling attempts.</p> <ul style="list-style-type: none"> The valve on the automatic (re)filling unit is faulty: Replace the unit.
A.02.34	AF min inter err	Auto filling minimum interval time has not been reached between two requests	<p>The system must be refilled too quickly by the automatic (re)filling unit:</p> <ul style="list-style-type: none"> Water leakage from the boiler or system: check the system for leaks. Latest refill ended just above the minimum water pressure because it was interrupted by the user, or because the water pressure in the supply line was (temporarily) too low.
A.02.36	Funct device lost	Functional device has been disconnected	<p>SCB not found:</p> <ul style="list-style-type: none"> Bad connection: check the wiring and connectors Faulty SCB: Replace SCB
A.02.37	Uncritic device lost	Uncritical device has been disconnected	<p>SCB not found:</p> <ul style="list-style-type: none"> Bad connection: check the wiring and connectors Faulty SCB: Replace SCB
A.02.45	Full Can Conn Matrix	Full Can Connection Matrix	<p>SCB not found:</p> <ul style="list-style-type: none"> Carry out an auto-detect
A.02.46	Full Can Device Adm	Full Can Device Administration	<p>SCB not found:</p> <ul style="list-style-type: none"> Carry out an auto-detect
A.02.48	Funct Gr Conf Fault	Function Group Configuration Fault	<p>SCB not found:</p> <ul style="list-style-type: none"> Carry out an auto-detect
A.02.49	Failed Init Node	Failed Initialising Node	<p>SCB not found:</p> <ul style="list-style-type: none"> Carry out an auto-detect
A.02.55	Inval or miss SerNR	Invalid or missing device serial number	Contact your supplier.
A.02.69	Fair mode active	Fair mode active	Contact your supplier.
A.02.76	Memory full	The reserved space in memory for custom parameters value is full. No more user changed possible	<p>Configuration error:</p> <ul style="list-style-type: none"> Reset CN1 and CN2 Faulty CSU: Replace CSU Replace the CU-GH

Code	Display text	Description	Solution
A.02.80	Missing Cascade Ctrl	Missing Cascade controller	Cascade controller not found: <ul style="list-style-type: none"> • Reconnect the cascade master • Carry out an auto-detect
A.08.02	Shower Time Elapsed	The time reserved for the shower has elapsed	Adjust parameter DP357 to the desired shower time.

10.1.3 Blocking

Tab.50 Blocking codes

Code	Display text	Description	Solution
H.00.81	RoomTempMissing	Room Temperature sensor was expected but not detected	Room temperature sensor not detected: <ul style="list-style-type: none"> • Room temperature sensor is not connected: Connect the sensor • Room temperature sensor is not connected correctly: Connect the sensor correctly
H.01.00	Comm Error	Communication Error occurred	Communication error with the security kernel: <ul style="list-style-type: none"> • Restart the boiler • Replace the CU-GH
H.01.05	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"> • No flow or insufficient flow: <ul style="list-style-type: none"> - Check the flow (direction, pump, valves) - Check the water pressure - Check the cleanliness of the heat exchanger • Sensor error: <ul style="list-style-type: none"> - Check that the sensors are operating correctly - Check that the sensor has been fitted properly
H.01.08	CH Temp Grad. Level3	Maximum CH temperature gradient level3 exceeded	Maximum heat exchanger temperature increase has been exceeded: <ul style="list-style-type: none"> • No flow or insufficient flow: <ul style="list-style-type: none"> - Check the circulation (direction, pump, valves) - Check the water pressure - Check the cleanliness of the heat exchanger - Check that the central heating system has been correctly vented to remove air • Sensor error: <ul style="list-style-type: none"> - Check that the sensors are operating correctly - Check that the sensor has been fitted properly
H.01.09	Gas Pressure Switch	Gas Pressure Switch	Gas pressure too low: <ul style="list-style-type: none"> • No flow or insufficient flow: <ul style="list-style-type: none"> - Make sure that the gas valve is fully opened - Check the gas supply pressure - If a gas filter is present: Make sure that the filter is clean • Wrong setting on the gas pressure switch: <ul style="list-style-type: none"> - Make sure that the switch has been fitted properly - Replace the switch if necessary

Code	Display text	Description	Solution
H.01.14	Max Tflow	Flow temperature has exceeded the maximum operating value	Flow temperature sensor above normal range: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • No flow or insufficient flow: <ul style="list-style-type: none"> - Check the circulation (direction, pump, valves) - Check the water pressure - Check the cleanliness of the heat exchanger
H.01.15	Max Tflue Gas	Flue gas temperature has exceeded the maximum operating value	Maximum flue gas temperature exceeded: <ul style="list-style-type: none"> • Check the flue gas outlet system • Check the heat exchanger to ensure that the flue gas side is not clogged • Faulty sensor: replace the sensor
H.01.21	Dhw Temp GradLevel3	Maximum Dhw Temperature Gradient Level3 Exceeded	The flow temperature has risen too fast: <ul style="list-style-type: none"> • Check the flow (direction, pump, valves) • Check that the pump is operating correctly
H.02.00	Reset In Progress	Reset In Progress	Reset procedure active: <ul style="list-style-type: none"> • No action
H.02.02	Wait Config Number	Waiting For Configuration Number	Configuration error or unknown configuration number: <ul style="list-style-type: none"> • Reset CN1 and CN2
H.02.03	Conf Error	Configuration Error	Configuration error or unknown configuration number: <ul style="list-style-type: none"> • Reset CN1 and CN2
H.02.04	Parameter Error	Parameter Error	Factory settings incorrect: <ul style="list-style-type: none"> • Parameters are not correct: <ul style="list-style-type: none"> - Restart the boiler - Reset CN1 and CN2 - Replace the CU-GH PCB
H.02.05	CSU CU mismatch	CSU does not match CU type	Configuration error: <ul style="list-style-type: none"> • Reset CN1 and CN2
H.02.09	Partial block	Partial blocking of the device recognized	Blocking input active or frost protection active: <ul style="list-style-type: none"> • External cause: remove external cause • Wrong parameter set: check the parameters • Bad connection: check the connection
H.02.10	Full Block	Full blocking of the device recognized	Blocking input is active (without frost protection): <ul style="list-style-type: none"> • External cause: remove external cause • Wrong parameter set: check the parameters • Bad connection: check the connection
H.02.12	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"> • External cause: remove external cause • Wrong parameter set: check the parameters • Bad connection: check the connection
H.02.31	AF needed	Device requires Auto filling of the water system due to low pressure	Refill the central heating system using the automatic (re)filling unit.
H.02.38	No water hardness	No hardness of water	-
H.02.70	HRU test error	External heat recovery unit test failed	Heat recovery unit non-return valve check failed: <ul style="list-style-type: none"> • Check the external heat recovery unit non-return valve.
H.03.00	Parameter Error	Safety parameters level 2, 3, 4 are not correct or missing	Parameter error: security kernel <ul style="list-style-type: none"> • Restart the boiler • Replace the CU-GH
H.03.01	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"> • Restart the boiler

Code	Display text	Description	Solution
H.03.02	Flame loss detected	Measured ionisation current is below limit	No flame during operation: <ul style="list-style-type: none"> • No ionisation current: <ul style="list-style-type: none"> - Vent the gas supply to remove air - Check that the gas valve is fully opened - Check the gas supply pressure - Check the operation and setting of the gas valve unit - Check that the air supply inlet and flue gas outlet are not blocked - Check that there is no recirculation of flue gases
H.03.05	Internal blocking	Gas Valve Control internal blocking occurred	Security kernel error: <ul style="list-style-type: none"> • Restart the boiler • Replace the CU-GH
H.03.17	Safety check	Periodically safety check ongoing	<ul style="list-style-type: none"> • Restart the boiler • Replace the CU-GH

10.1.4 Locking

Tab.51 Locking codes

Code	Display text	Description	Solution
E.00.04	TReturn Open	Return temperature sensor is either removed or measures a temperature below range	Return temperature sensor open: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Incorrectly fitted sensor: check that the sensor has been correctly fitted • Faulty sensor: replace the sensor
E.00.05	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"> • Bad connection: check the wiring and connectors • Incorrectly fitted sensor: check that the sensor has been correctly fitted • Faulty sensor: replace the sensor
E.00.06	TReturn Missing	Return temperature sensor was expected but not detected	No connection to temperature return sensor: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors. • Faulty sensor: replace the sensor
E.00.07	dTReturn Too High	Return temperature difference is too large	Difference between the flow and return temperatures too great: <ul style="list-style-type: none"> • No circulation: <ul style="list-style-type: none"> - Vent the central heating system to remove air - Check the water pressure - If present: check the boiler type parameter setting - Check the circulation (direction, pump, valves) - Check that the heating pump is operating correctly - Check the cleanliness of the heat exchanger • Sensor not connected or incorrectly connected: <ul style="list-style-type: none"> - Check that the sensors are operating correctly - Check that the sensor has been fitted properly • Faulty sensor: replace the sensor if necessary

Code	Display text	Description	Solution
E.00.16	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"> • Bad connection: check the wiring and connectors • Faulty sensor: replace the sensor
E.00.17	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"> • Bad connection: check the wiring and connectors • Faulty sensor: replace the sensor
E.00.44	TcombiDhwOutOpen	Domestic hot water outlet temperature sensor is either removed or measures a temperature below range	DHW temperature sensor open: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Faulty sensor: replace the sensor
E.00.45	DHWoutSens shorted	Domestic hot water outlet temperature sensor is either shorted or measures a temperature above range	DHW temperature sensor short-circuited: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Faulty sensor: replace the sensor
E.01.04	5x Flame Loss Error	5x Error of unintended Flame Loss occurrence	Flame loss occurs 5 times: <ul style="list-style-type: none"> • Vent the gas supply to remove air • Check that the gas valve is fully opened • Check the gas supply pressure • Check the operation and setting of the gas valve unit • Check that the air supply inlet and flue gas outlet are not blocked • Check that there is no recirculation of flue gases
E.01.11	Fan Out Of Range	Fan speed has exceeded normal operating range	Fan fault: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors. • Faulty fan: replace the fan • Fan operates when it should not be operating: check for excessive chimney draught
E.01.12	Return Higher Flow	Return temperature has a higher temperature value than the flow temperature	Flow and return reversed: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Water circulation in wrong direction: check the circulation (direction, pump, valves) • Incorrectly fitted sensor: check that the sensor has been correctly fitted • Malfunctioning sensor: check the Ohmic value of the sensor • Faulty sensor: replace the sensor
E.01.24	Combustion Error	Several combustion errors occurs with 24 hours	Low ionisation current: <ul style="list-style-type: none"> • Vent the gas supply to remove air. • Check that the gas valve is fully opened. • Check the gas supply pressure. • Check the operation and setting of the gas valve unit. • Check that the air supply inlet and flue gas outlet are not blocked. • Check that there is no recirculation of flue gases.
E.02.13	Blocking Input	Blocking Input of the Control Unit from device external environment	Blocking input is active: <ul style="list-style-type: none"> • External cause: remove external cause • Wrong parameter set: check the parameters

Code	Display text	Description	Solution
E.02.15	Ext CSU Timeout	External CSU Timeout	CSU time out: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Faulty CSU: Replace CSU
E.02.17	GVC CommTimeout	Gas Valve Control unit communication has exceeded feedback time	Communication error with the security kernel: <ul style="list-style-type: none"> • Restart the boiler • Replace the CU-GH
E.02.32	AF comm err	Auto filling installation communication has exceeded feedback time	Refilling the central heating system takes too long: <ul style="list-style-type: none"> • Check the system for leaks. • Check the water pressure in the system. • Check that the inlet gas valve is fully open. • Check that the main water valve is fully open. • Check the operation of the pressure sensor. • Check the operation of the safety valve.
E.02.35	Safety device lost	Safety critical device has been disconnected	Communication fault <ul style="list-style-type: none"> • Carry out an auto-detect
E.02.39	AF low pressure rise	No sufficient rise of pressure after autofilling	The water pressure in the system has not risen sufficiently during the automatic filling procedure: <ul style="list-style-type: none"> • Check the system for leaks. • Check the water pressure in the system. • Check that the inlet gas valve is fully open. • Check that the main water valve is fully open. • Check the operation of the pressure sensor. • Check the operation of the safety valve.
E.02.47	Failed Conn Funct Gr	Failed Connecting Function Groups	Function group not found: <ul style="list-style-type: none"> • Carry out an auto-detect • Restart the boiler • Replace the CU-GH
E.04.00	Parameter error	Safety parameters Level 5 are not correct or missing	Replace the CU-GH.
E.04.01	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"> • Bad connection: check the wiring and connectors • Incorrectly fitted sensor: check that the sensor has been correctly fitted • Faulty sensor: replace the sensor
E.04.02	TFlow Open	Flow temperature sensor is either removed or measuring a temperature below range	Flow temperature sensor open: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Faulty sensor: replace the sensor
E.04.03	Max Flow temp	Measured flow temperature above safety limit	No flow or insufficient flow: <ul style="list-style-type: none"> • Check the circulation (direction, pump, valves) • Check the water pressure • Check the cleanliness of the heat exchanger
E.04.04	TFlue Closed	Flue temperature sensor is either shorted or measuring a temperature above range	Flue gas temperature sensor short-circuited: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Incorrectly fitted sensor: check that the sensor has been correctly fitted • Faulty sensor: replace the sensor
E.04.05	TFlue Open	Flue temperature sensor is either removed or measuring a temperature below range	Flue gas temperature sensor open: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Incorrectly fitted sensor: check that the sensor has been correctly fitted • Faulty sensor: replace the sensor

Code	Display text	Description	Solution
E.04.06	Max Flue temp	Measured flue temperature above limit	-
E.04.07	TFlow Sensor	Deviation in flow sensor 1 and flow sensor 2 detected	Flow temperature sensor deviation: <ul style="list-style-type: none"> • Bad connection: check the connection • Faulty sensor: replace the sensor
E.04.08	Safety input	Safety input is open	Air pressure differential switch activated: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Pressure in flue gas duct is or was too high: <ul style="list-style-type: none"> - Non-return valve does not open - Siphon blocked or empty - Check that the air supply inlet and flue gas outlet are not blocked - Check the cleanliness of the heat exchanger
E.04.09	TFlue Sensor	Deviation in flue sensor 1 and flue sensor 2 detected	Flue gas temperature sensor deviation: <ul style="list-style-type: none"> • Bad connection: check the connection • Faulty sensor: replace the sensor
E.04.10	Unsuccessful start	5 Unsuccessful burners starts detected	Five failed burner starts: <ul style="list-style-type: none"> • No ignition spark: <ul style="list-style-type: none"> - Check the wiring between the CU-GH and the ignition transformer - Check the ionisation/ignition electrode - Check breakdown to earth - Check the condition of the burner cover - Check the earthing - Replace the CU-GH • Ignition spark but no flame: <ul style="list-style-type: none"> - Vent the gas pipes to remove air - Check that the air supply inlet and flue gas outlet are not blocked - Check that the gas valve is fully opened - Check the gas supply pressure - Check the operation and setting of the gas valve unit - Check the wiring on the gas valve unit - Replace the CU-GH • Flame present, but ionisation has failed or is inadequate: <ul style="list-style-type: none"> - Check that the gas valve is fully opened - Check the gas supply pressure - Check the ionisation/ignition electrode - Check the earthing - Check the wiring on the ionisation/ignition electrode.
E.04.11	VPS	VPS Gas Valve proving failed	Gas leakage control fault: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Gas leakage control VPS faulty: Replace the valve proving system (VPS) • Gas valve unit faulty: Replace the gas valve unit
E.04.12	False flame	False flame detected before burner start	False flame signal: <ul style="list-style-type: none"> • The burner remains very hot: Set the O₂ • Ionisation current measured but no flame should be present: check the ionisation/ignition electrode • Faulty gas valve: replace the gas valve • Faulty ignition transformer: replace the ignition transformer

Code	Display text	Description	Solution
E.04.13	Fan	Fan speed has exceeded normal operating range	Fan fault: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors. • Fan operates when it should not be operating: check for excessive chimney draught • Faulty fan: replace the fan
E.04.15	FlueGas Pipe Blocked	The flue gas pipe is blocked	Flue gas outlet is blocked: <ul style="list-style-type: none"> • Check that the flue gas outlet is not blocked • Restart the boiler
E.04.17	GasValve Driver Err.	The driver for the gas valve is broken	Gas valve unit fault: <ul style="list-style-type: none"> • Bad connection: check the wiring and connectors • Faulty gas valve unit: Replace the gas valve unit
E.04.23	Internal Error	Gas Valve Control internal locking	<ul style="list-style-type: none"> • Restart the boiler • Replace the CU-GH
E.04.250	Internal error	Gas valve relay error detected	Internal error: <ul style="list-style-type: none"> • Replace the PCB.

10.2 Error history

The control panel has an error history that stores the last 32 errors. Specific details are stored for each error, for example:

- Status
- Sub-status
- Flow temperature
- Return temperature

These details and others can contribute to the error solution.



See also

Additional documentation, page 8

10.2.1 Reading out and clearing the error history

You can read out the errors on the control panel. The error history can also be cleared.

▶▶ ≡ > Error History

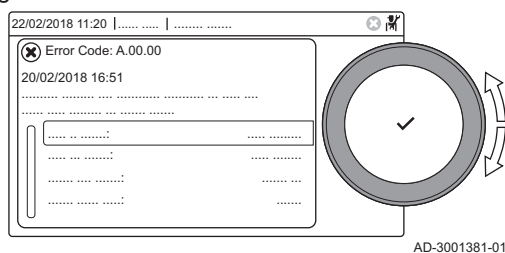


Use the rotary knob to navigate.

Use the ✓ button to confirm your selection.

1. Press the ≡ button.
 2. Select **Error History**.
Enable installer access if **Error History** is not available.
 - 2.1. Select **Enable installer access**.
 - 2.2. Use code **0012**.
- ⇒ A list up to 32 most recent errors is displayed with:
- The error code.
 - A short description.
 - The date.

Fig.69 Error details



3. Select the error code you want to investigate.
⇒ The display shows an explanation of the error code and several details of the appliance when the error occurred.
4. To clear the error memory, press and hold the ✓ button.

11 User instructions

11.1 Start-up

Start the boiler up as follows:

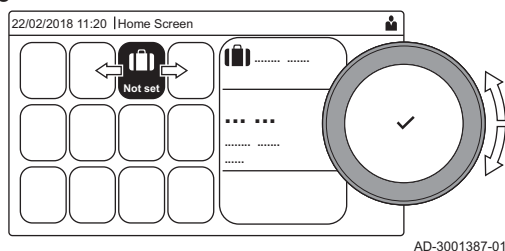
1. Open the boiler gas tap.
2. Power up the boiler.
3. The boiler runs through an automatic venting program lasting approx. 3 minutes.
4. Check the water pressure of the central heating system shown on the control panel display. If necessary, top up the central heating system.

The current operating condition of the boiler is shown on the display.

11.2 Accessing the user level menus

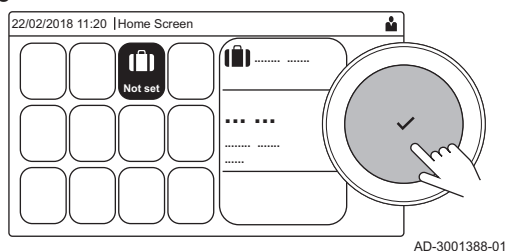
The tiles on the home screen provide quick access for the user to the corresponding menus.

Fig.70 Menu selection



1. Use the rotary knob to select the required menu.

Fig.71 Confirm menu selection













2. Press the ✓ button to confirm the selection.
⇒ The available settings of this selected menu appear in the display.
3. Use the rotary knob to select the desired setting.
4. Press the ✓ button to confirm the selection.
⇒ All options for change will appear in the display (if a setting cannot be changed, **Cannot edit read-only datapoint** will appear in the display).
5. Use the rotary knob to change the setting.
6. Press the ✓ button to confirm the selection.
7. Use the rotary knob to select the next setting or press the ↩ button to return to the home screen.

11.3 Home screen

The tiles on the home screen provide quick access to the corresponding menus. Use the rotary knob to navigate to the menu of your choice and press the ✓ button to confirm the selection. All options for change will appear in the display (**Cannot edit read-only datapoint** will appear in the display if a setting cannot be changed).

Tab.52 Selectable tiles for the user


Tile	Menu	Function
	Information menu.	Read out various current values.
	Error indicator.	Read out details about the current error. With some errors the  icon will appear with installer contact details (when filled in).
	Holiday Mode.	Set the start and end date of your holiday to lower the room and domestic hot water temperatures of all zones.
	Operating mode.	Change whether your appliance is set to heating, cooling, both or off.
	Gas boiler indicator.	Read out burning details of the boiler and switch the heating function of the boiler on or off.
	Water pressure indicator.	Shows the water pressure. Top up the installation when the water pressure is too low.
	Heating circuit set-up.	Configure the settings per heating circuit.
	DHW setup.	Configure the domestic hot water temperatures.
	Outdoor sensor setup.	Configure the temperature regulation using the outdoor sensor.

11.4 Activating holiday programs for all zones

If you go on holiday, the room temperature and domestic hot water temperature can be reduced to save energy. With the following procedure you can activate the holiday mode for all zones and domestic hot water temperature.









Use the rotary knob to navigate.

Use the  button to confirm your selection.

1. Select the tile .
2. Select **Start date holiday**.
3. Configure the start date.
4. Select **End date holiday**.
⇒ The day after the start date of your holiday is displayed.
5. Configure the end date.
6. Select **Wished room zone temperature on holiday period**.
7. Configure the temperature.

You can reset or cancel the holiday program by selecting **Reset** in the holiday mode menu.

11.5 Heating circuit configuration

For every heating circuit there is a quick user settings menu available. Select the heating circuit you want to configure by selecting the tile , , , ,  or .

Tab.53 Menu to configure domestic hot water

Menu	Function
Set heating temperatures	Set the temperatures for the timer program.
Operating mode	Set the operating mode.
Time programs heating	Set and configure the time programs used when in operating mode Scheduling .
Zone configuration	Configure the settings of the zone circuit.

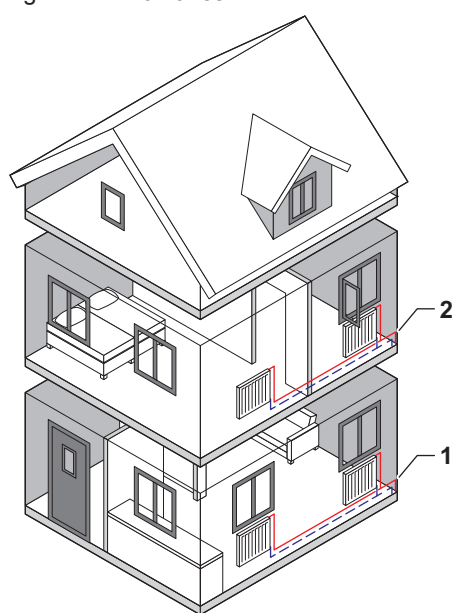
Tab.54 Extended menu to configure a heating circuit **Zone configuration**

Menu	Function
Short temperature change	Change the room temperature temporarily, if required.
OperatingZoneMode	Select the heating operating mode: Scheduling, Manual.
Manu ZoneRoomTempSet	Set the room temperature manually to a fixed setting.
Holiday Mode	Set the start and end date of your holiday and the reduced temperature for this zone.
Zone friendly Name	Create or change the name of the heating circuit.
Icon display zone	Select the icon of the heating circuit.

11.6 Changing the room temperature of a zone

11.6.1 Definition of zone

Fig.72 Two zones



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Zone is the term given to the different hydraulic circuits CIRCA, CIRCB and so on. It designates several areas of a building served by the same circuit.

Tab.55 Example of two zones

	Zone	Factory name
1	Zone 1	CIRCA
2	Zone 2	CIRCB

11.6.2 Changing the name and symbol of a zone

The zones have a factory set symbol and name. Depending on your appliance you can change the symbol and name for the zones, not all appliances and zone types will support changing the symbol and name.

- Select zone > **Zone configuration** > **Zone friendly Name** or **Icon display zone**
 Installer access enabled: Select zone > **Zone friendly Name** or **Icon display zone**



Use the rotary knob to navigate.
 Use the ✓ button to confirm your selection.

1. Select the tile of the zone you want to change.
2. Select **Zone configuration**



This menu will not appear if you have installer access enabled, continue to the next step.

3. Select **Zone friendly Name**
 ⇒ A keyboard with letters, numbers and symbols (characters) is shown.
4. Change the name of the zone (20 characters maximum):

Fig.73 Letter selection

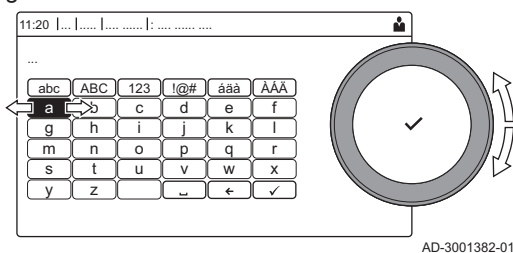
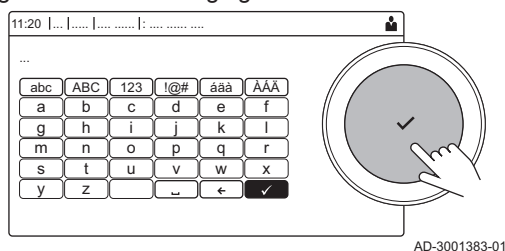


Fig.74 Finish changing the zone name



- 4.1. Use the top row to change between capitalization, numbers, symbols or special characters.
- 4.2. Select a character or action.
- 4.3. Select to delete a character.
- 4.4. Select to add a space.

- 4.5. Select to finish changing the zone name.
5. Select **Icon display zone**.
⇒ All available icons appear in the display.
6. Select the desired icon of the zone.

11.6.3 Changing the operating mode of a zone

To regulate the room temperature of the different areas of the house, you can choose from 5 operating modes:

►► Select zone > **Operating mode**



Use the rotary knob to navigate.
Use the button to confirm your selection.

1. Select the tile of the zone you want to change.
2. Select **Operating mode**
3. Select the desired operating mode:

Tab.56 Operating modes

Icon	Mode	Description
	Scheduling	The room temperature is controlled by a timer program
	Manual	The room temperature is set to a fixed setting
	Short temperature change	The room temperature is changed temporarily
	Holiday	The room temperature is reduced during your holiday to save energy
	Antifrost	Protect the boiler and installation from freezing in winter

11.6.4 Timer program to control the room temperature

■ Creating a timer program

A timer program allows you to vary the room temperature per hour and per day. The room temperature is linked to the activity of the timer program. You can create up to three timer programs per zone. For example, you can create a program for a week with normal working hours and a program for a week when you are at home most of the time.

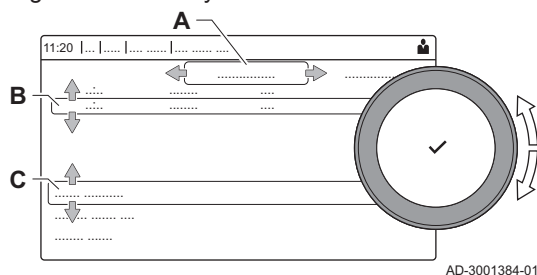
►► Select zone > **Time programs heating**



Use the rotary knob to navigate.
Use the button to confirm your selection.

1. Select the tile of the zone you want to change.
2. Select **Time programs heating**.

Fig.75 Weekday



3. Select the timer program you want to modify: **Schedule 1**, **Schedule 2** or **Schedule 3**.

⇒ Activities scheduled for Monday are displayed. The last scheduled activity of a day is active until the first activity of the next day. At initial start-up, all weekdays have two standard activities; **Home** starting at 6:00 and **Sleep** starting at 22:00.

4. Select the weekday you want to modify.

- A Weekday
- B Overview of scheduled activities
- C List of actions

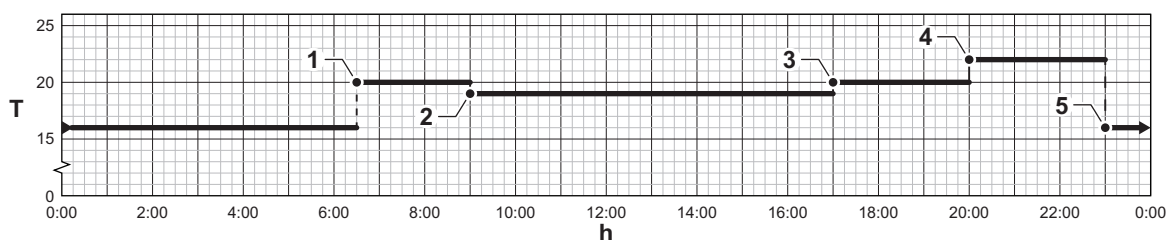
5. You can perform the following actions:

- 5.1. Select scheduled activity to edit the time this activity will start, change the temperature or to delete the selected activity.
- 5.2. **Add time and Activity** to add a new activity to the scheduled activities.
- 5.3. **Copy to other day** to copy the scheduled activities of the weekday to other days.
⇒ The activities including the configured time and temperature will be copied to the selected days.
- 5.4. **Set activity temperatures** to change the temperature.

■ Definition of activity

Activity is the term used when programming time slots in a timer program. The timer program sets the room temperature for different activities during the day. A temperature setpoint is associated with each activity. The last activity of the day is valid until the first activity of the next day.

Fig.76 Activities of a timer program



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Tab.57 Example of activities

	Start of the activity	Activity	Temperature setpoint
1	6:30	Morning	20 °C
2	9:00	Away	19 °C
3	17:00	Home	20 °C
4	20:00	Evening	22 °C
5	23:00	Sleep	16 °C

■ Changing the name of an activity

You can change the names of the activities in the timer program.

▶▶ ≡ > **System Settings > Set Heating Activity Names**



Use the rotary knob to navigate.

Use the ✓ button to confirm your selection.

1. Press the ≡ button.
2. Select **System Settings** ⚙️.

3. Select **Set Heating Activity Names**.
⇒ A list of 6 activities and their standard names is shown:

Activity 1	Sleep
Activity 2	Home
Activity 3	Away
Activity 4	Morning
Activity 5	Evening
Activity 6	Custom

4. Select an activity.
⇒ A keyboard with letters, numbers and symbols is shown.
5. Change the name of the activity (20 characters maximum):
- 5.1. Use the top row to change between capitalization, numbers, symbols or special characters.
 - 5.2. Select a letter, number or action.
 - 5.3. Select ← to delete a letter, number or symbol.
 - 5.4. Select [] to add a space.
 - 5.5. Select ✓ to finish changing the activity name.

Fig.77 Letter selection

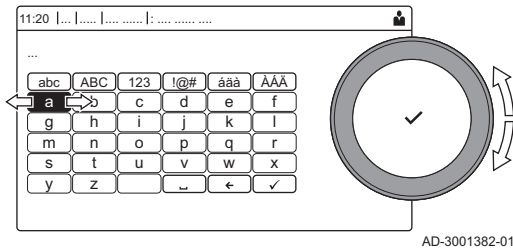
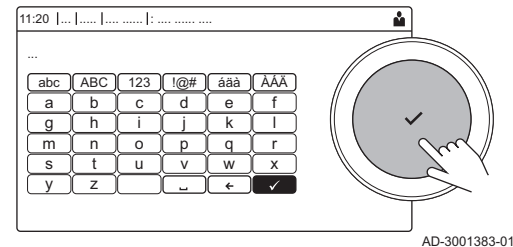


Fig.78 Confirm sign



■ **Activating a timer program**

In order to use a timer program, it is necessary to activate the operating mode **Scheduling**. This activation is done separately for each zone.

- ▶▶ Select zone > **Operating mode** > **Scheduling**

💡 Use the rotary knob to navigate.
Use the ✓ button to confirm your selection.

- 1. Select the tile of the zone you want to change.
- 2. Select **Operating mode**.
- 3. Select **Scheduling**.
- 4. Select the timer program **Schedule 1**, **Schedule 2** or **Schedule 3**.

11.6.5 Changing the heating activity temperatures

You can change the heating temperatures of each activity.

- ▶▶ Select zone > **Set heating temperatures**

💡 Use the rotary knob to navigate.
Use the ✓ button to confirm your selection.

- 1. Select the tile of the zone you want to change.
- 2. Select **Set heating temperatures**.
⇒ A list of 6 activities and their temperatures is shown.
- 3. Select an activity.
- 4. Set the heating activity temperature.

11.6.6 Changing the room temperature temporarily

Regardless of the operating mode selected for a zone, it is possible to change the room temperature for a short period. After this period has elapsed, the selected operating mode resumes.

▶▶ Select zone > **Operating mode** > **Short temperature change**




Use the rotary knob to navigate.

Use the ✓ button to confirm your selection.



The room temperature can only be adjusted in this way if a room temperature sensor/thermostat is installed.

1. Select the tile of the zone you want to change.
2. Select **Operating mode**
3. Select  **Short temperature change**.
4. Set the duration in hours and minutes.
5. Set the temporary room temperature.

11.7 Changing the domestic hot water temperature

11.7.1 Domestic hot water configuration

Configure the domestic hot water settings by selecting the tile .

Tab.58 Menu to configure domestic hot water

Menu	Function
Domestic Hot Water Setpoints	Set the DHW temperatures for the timer program.
Operating mode	Set the operating mode.
Time programs	Set and configure the time programs used when in operating mode Scheduling .
DHW configuration	Configure the settings of the DHW circuit.

Tab.59 Extended menu to configure the domestic hot water circuit **DHW configuration**

Menu	Function
Hot water boost	Change the DHW temperature temporarily.
Holiday Mode	Set the start and end date of your holiday.
DHW mode	Select the DHW operating mode: Scheduling, Manual.

11.7.2 Changing the domestic hot water operating mode

You can change the operating mode for hot water production. You can choose from 5 operating modes.

▶▶  > **Operating mode**



Use the rotary knob to navigate.

Use the ✓ button to confirm your selection.






1. Select the tile .
2. Select **Operating mode**



This option is not available when installer access is enabled.

3. Select the desired operating mode:

Tab.60 Operating modes



Icon	Mode	Description
	Scheduling	The domestic hot water temperature is controlled by a timer program
	Manual	The domestic hot water temperature is set to a fixed setting
	Hot water boost	The domestic hot water temperature is increased temporarily
	Holiday	The domestic hot water temperature is reduced during your holiday to save energy
	Antifrost	Protect the appliance and installation from freezing.


11.7.3 Timer program to control the DHW temperature


■ Creating a timer program

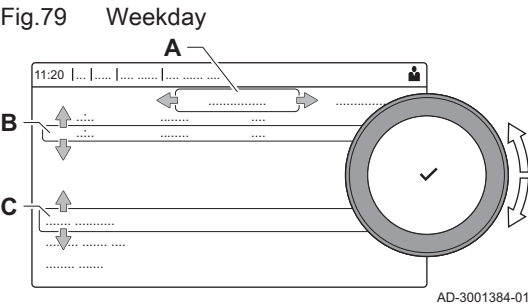
A timer program allows you to vary the domestic hot water temperature per hour and per day. The hot water temperature is linked to the activity of the timer program.

▶▶  > Operating mode

 Use the rotary knob to navigate.
Use the  button to confirm your selection.

 You can create up to three timer programs. For example, you can create a program for a week with normal working hours and a programme for a week when you are at home most of the time.



1. Select the tile .
2. Select **Time programs**.
3. Select the timer program you want to modify: **Schedule 1**, **Schedule 2** or **Schedule 3**.
⇒ Activities scheduled for Monday are displayed. The last scheduled activity of a day is active until the first activity of the next day. The scheduled activities are shown. At initial start-up, all weekdays have two standard activities; **Comfort** starting at 6:00 and **Reduced** starting at 22:00.
4. Select the weekday you want to modify.
 - A Weekday
 - B Overview of scheduled activities
 - C List of actions
5. You can perform the following actions:
 - 5.1. **Select scheduled activity** to edit the time this activity will start, change the temperature or to delete the selected activity.
 - 5.2. **Add time and Activity** to add a new activity to the scheduled activities.
 - 5.3. **Copy to other day** to copy the scheduled activities of the weekday to other days.
 - 5.4. **Set activity temperatures** to change the temperature.



■ Activating a DHW timer program

In order to use a DHW timer program, it is necessary to activate the operating mode **Scheduling**. This activation is done separately for each zone.

▶▶  > Operating mode > Scheduling

 Use the rotary knob to navigate.
Use the  button to confirm your selection.

1. Select the tile .
2. Select **Operating mode**.
3. Select **Scheduling**.

4. Select the DHW timer program **Schedule 1**, **Schedule 2** or **Schedule 3**.

11.7.4 Changing the comfort and reduced hot water temperature


You can change the comfort and reduced hot water temperature for the timer program.

▶▶  > **Domestic Hot Water Setpoints**



Use the rotary knob to navigate.

Use the  button to confirm your selection.

1. Select the tile .
2. Select **Domestic Hot Water Setpoints**.
3. Select the setpoint you want to change:
 - **DHW comfort setpoint**: The temperature when the hot water production is switched on.
 - **DHW reduced setpoint**: The temperature when the hot water production is switched off.
4. Set the desired temperature.

11.7.5 Increasing the domestic hot water temperature temporarily

Regardless of the operating mode selected for domestic hot water production, it is possible to increase the domestic hot water temperature for a short period. After this period the hot water temperature decreases to the **Reduced** setpoint. This is called a hot water boost.

▶▶  > **Operating mode > Hot water boost**





Use the rotary knob to navigate.

Use the  button to confirm your selection.



Important

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

1. Select the tile .
2. Select **Operating mode**.
3. Select  **Hot water boost**.
4. Set the duration in hours and minutes.
 - ⇒ The temperature is increased to the **DHW comfort setpoint** for the duration of the boost.

11.8 Switching the central heating on or off

You can switch off the central heating function to save energy.




When an outdoor sensor is connected to the installation, it's also possible to use the summer mode function for switching the central heating on or off.

▶▶  > **CH function on**



Use the rotary knob to navigate.

Use the  button to confirm your selection.

1. Select the tile .
2. Select **CH function on**.

3. Select the following setting:
 - **Off** to switch off the central heating function.
 - **On** to switch on the central heating function.

**Caution**

Frost protection is not available when the central heating function is switched off.

11.9 Switching the summer mode on or off

You can use summer mode to switch off the central heating function. While summer mode is active central heating will be turned off but hot water remains available.





The summer mode function is only available when an outdoor sensor is connected to the installation.



 > **Force summer mode**




Use the rotary knob to navigate.
Use the  button to confirm your selection.






1. Select the tile .
2. Select **Force summer mode**.
3. Select the following setting:
 - **On** to switch on summer mode.
 - **Off** to switch off summer mode.

11.10 Changing the operating mode

You can set the operating mode of your appliance. The modes available may vary per appliance.



Use the rotary knob to navigate.
Use the  button to confirm your selection.

1. Select the tile .
2. You can choose between the following operating modes:
 -  **Off** Disable the appliance, does not affect hot water production.
 -  **Heating (auto)** Enable heating.
 -  **Forced cooling** Enable cooling.
 -  **Heating/cooling (auto)** Enable both heating and cooling.

⇒ The operating mode tile will update to reflect the selected operating mode.


11.11 Changing the control panel settings



You can change the control panel settings within system settings.



 > **System Settings**



Use the rotary knob to navigate.
Use the  button to confirm your selection.

1. Press the  button.
2. Select **System Settings** .

3. Perform one of the operations described in the table below:

Tab.61 Control panel settings

System Settings menu	Settings
Set Date and Time	Set the current date and time
Select Country and Language	Select your country and language
Daylight Saving Time	Enable or disable daylight saving time. When enabled daylight saving time will update the systems internal time to correspond with summer and winter time.
Installer Details	Read out the name and phone number of the installer
Set Heating Activity Names	Create the names for the activities of the timer program
Set Screen Brightness	Adjust the brightness of the screen
Set click sound	Enable or disable the click sound of the rotary knob
License Information	Read out detailed license information from the device platform application

11.12 Reading the installer's name and phone number

The installer can set his name and phone number in the control panel. You can read this information when you want to contact the installer.

▶▶ ≡ > **System Settings > Installer Details**



Use the rotary knob to navigate.

Use the ✓ button to confirm your selection.

1. Press the ≡ button.
2. Select **System Settings** ⚙️
3. Select **Installer Details**.
⇒ The installer's name and phone number is shown.

11.13 Shut-down

Shut-down the boiler as follows:

1. Turn off the boiler using the on/off switch.
2. Shut off the gas supply.
3. Keep the installation frost-free.

Do not shut-down the boiler if the installation can't be kept frost-free.

11.14 Frost protection



Caution

- Drain the boiler and central heating system if you are not going to use your home or the building for a long time and there is a chance of frost.
- The frost protection does not work if the boiler is out of operation.
- The built-in boiler protection is only activated for the boiler and not for the system and radiators.
- Open the valves of all the radiators connected to the system.

Set the temperature control low, for example to 10°C.

If the temperature of the central heating water in the boiler drops too low, the built-in boiler protection system is activated. This system works as follows:

- If the water temperature is lower than 7°C, the pump switches on.
- If the water temperature is lower than 4°C, the boiler switches on.
- If the water temperature is higher than 10°C, the burner shuts down and the pump continues to run for a short time.

To prevent the system and radiators freezing in frost-sensitive areas (e.g. a garage), a frost thermostat or, if feasible, an outdoor sensor can be connected to the boiler.

11.15 Cleaning the casing

1. Clean the outside of the appliance using a damp cloth and a mild detergent.

12 Technical specifications

12.1 Homologations

12.1.1 Certifications

Tab.62 Certifications

CE identification number	PIN 0063CS3928
Class NOx ⁽¹⁾	6
Type of flue gas connection	B _{23P} , B ₃₃ ⁽²⁾ C ₁₃ , C ₃₃ , C ₅₃ , C ₆₃ , C ₉₃
(1) EN 15502-1 (2) When installing a boiler with connection type B _{23P} , B ₃₃ , the IP rating of the boiler is lowered to IP20.	

12.1.2 BREEAM compliance

The Quinta Ace complies with the BREEAM emission requirements. In order to meet these requirements, some boiler parameter values need to be changed.



Important

Refer to the chapter for the boiler's BREEAM settings.

12.1.3 Unit categories

Tab.63 Unit categories

Country	Category ⁽¹⁾	Gas type	Connection pressure (mbar)
Great Britain	II _{2H3B/P}	G20 (H gas) G30/G31 (butane/propane)	20 30-50
(1) This appliance is suitable for category I _{2H} containing up to 20% Hydrogen gas (H ₂).			

12.1.4 Directives

In addition to the legal requirements and guidelines, the supplementary guidelines in this manual must also be followed.

Supplements or subsequent regulations and guidelines that are valid at the time of installation shall apply to all regulations and guidelines specified in this manual.

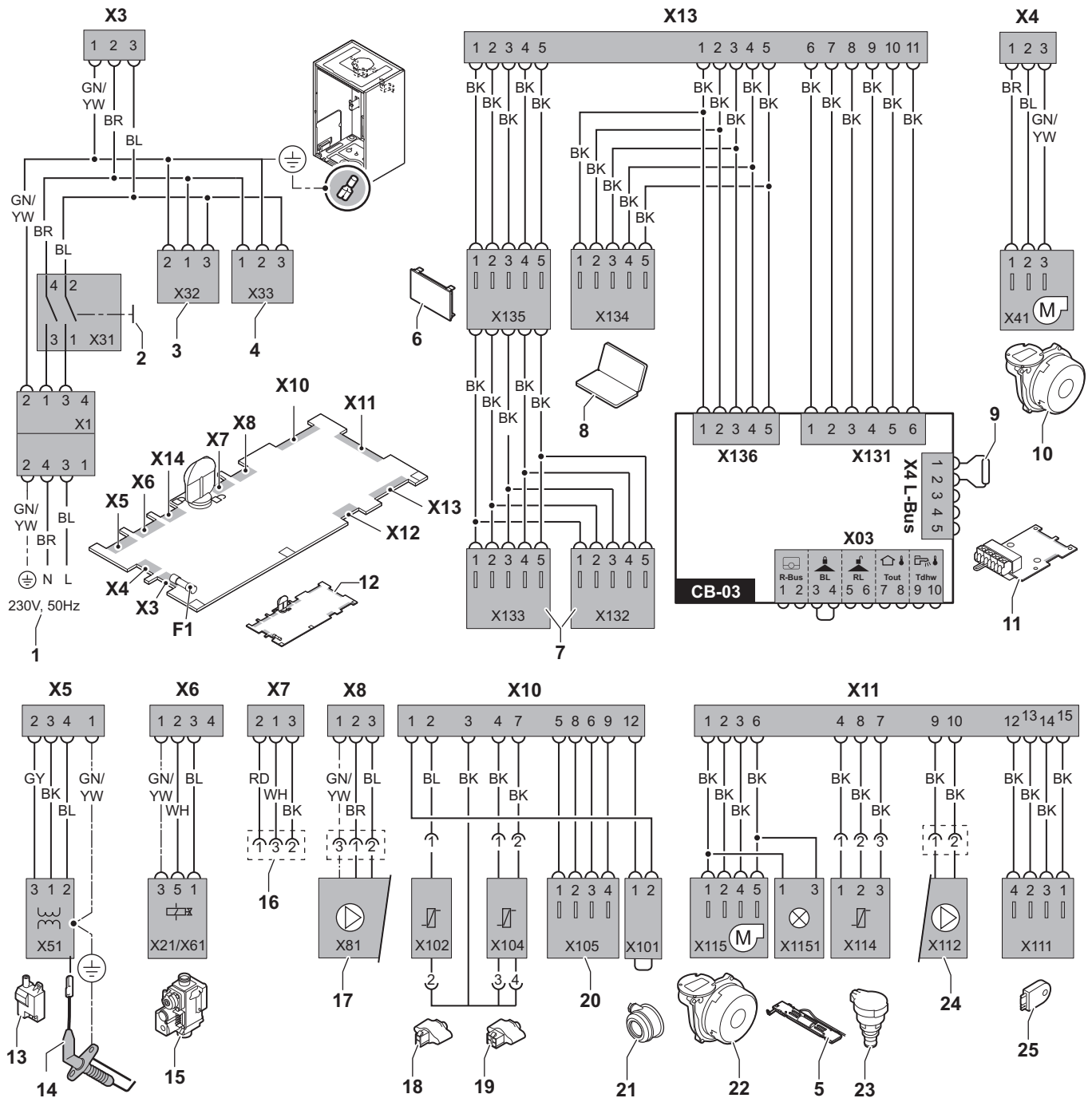
12.1.5 Factory test

Before leaving the factory, each boiler is optimally set and tested for:

- Electrical safety.
- Adjustment of O₂.
- Water tightness.
- Gas tightness.
- Parameter setting.

12.2 Electrical diagram

Fig.80 Electrical diagram



AD-3001177-04

- 1 Power supply
- 2 On/off switch
- 3 Power supply for SCB-xx control PCBs
- 4 Power supply for IF-01 control PCB
- 5 Interior lighting
- 6 Display
- 7 Connection points for additional SCB-xx control PCBs
- 8 Service connection
- 9 L-Bus connection for SCB-xx control PCBs
- 10 Fan supply
- 11 Standard CB-03 control PCB
- 12 CU-GH08 control unit
- 13 Ignition transformer
- 14 Ionisation/ignition electrode
- 15 Combined gas valve unit
 - Connector X6 to X21 for Quinta Ace 30, 45, 55, 65, 90
 - Connector X6 to X61 for Quinta Ace 115
- 16 Connection to CB-08 PCB (for 24 V or 230 V three-way valve)
- 17 Power supply for pump
- 18 Return sensor (NTC 10 kΩ/25°C)
- 19 Flow sensor (NTC 10 kΩ/25°C)
- 20 Connection point for flue gas sensor (PTC <20Ω/25°C)
- 21 Connection point for air pressure differential switch (remove bridge)
- 22 Fan control

- 23

Pressure sensor
- 24

Control for PWM pump
- 25

Storage information (CSU)
- BK

Black
- BL

Blue
- BR

Brown
- GN

Green
- GY

Grey
- RD

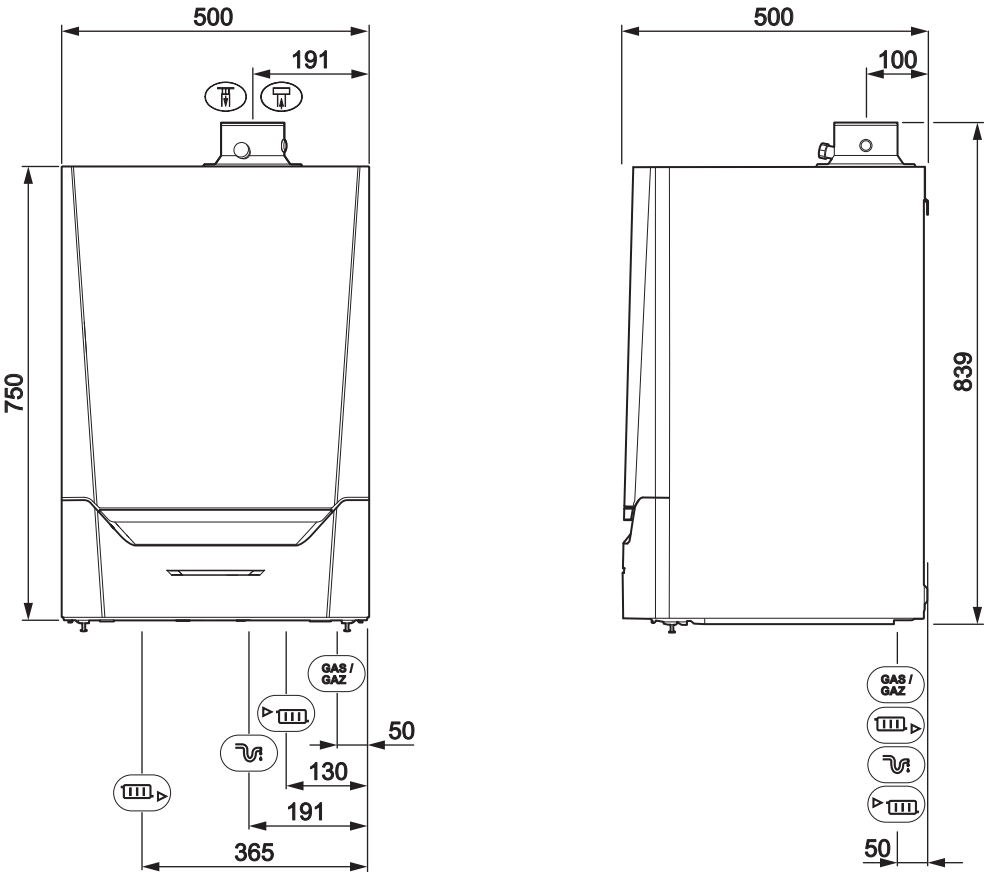
Red
- WH

White
- YW

Yellow

12.3 Dimensions and connections

Fig.81 Dimensions











AD-4100113-03

Tab.64 Connections

Symbol	Connection	Quinta Ace 30	Quinta Ace 45	Quinta Ace 55	Quinta Ace 65	Quinta Ace 90	Quinta Ace 115
	Flue gas outlet	Ø 80 mm	Ø 80 mm	Ø 100 mm	Ø 100 mm	Ø 100 mm	Ø 100 mm
	Air supply	Ø 125 mm	Ø 125 mm	Ø 150 mm	Ø 150 mm	Ø 150 mm	Ø 150 mm
	Siphon	25 mm	25 mm	25 mm	25 mm	25 mm	25 mm
	CH flow	1 ¼" male thread	1 ¼" male thread	1 ¼" male thread	1 ¼" male thread	1 ¼" male thread	1 ¼" male thread
	CH return	1 ¼" male thread	1 ¼" male thread	1 ¼" male thread	1 ¼" male thread	1 ¼" male thread	1 ¼" male thread
	Gas	¾" male thread	¾" male thread	¾" male thread	¾" male thread	¾" male thread	¾" male thread

12.4 Technical data

Tab.65 General

Quinta Ace			30	45	55	65	90	115
Nominal output (P_n) Central heating operation (80/60°C)	min-max  (1)	kW	8.0 - 29.8 29.8	8.0 - 40.8 40.8	11.1 - 55.3 55.3	12.0 - 61.5 61.5	14.1 - 84.2 84.2	18.9 - 103.9 103.9
Nominal output (P_{nc}) Central heating operation (50/30°C)	min-max  (1)	kW	9.1 - 30.9 30.9	9.1 - 42.4 42.4	12.3 - 58.6 58.6	13.5 - 65.0 65.0	15.8 - 89.5 89.5	21.2 - 109.7 109.7
Nominal load (Q_{nh}) Central heating operation (H_i)	min-max  (1)	kW	8.2 - 30.0 30.0	8.2 - 41.2 41.2	11.3 - 56.5 56.5	12.2 - 62.0 62.0	14.6 - 86.0 86.0	19.6 - 107.0 107.0
Nominal load (Q_{nh}) Central heating operation (H_s)	min-max  (1)	kW	9.1 - 33.3 33.3	9.1 - 45.7 45.7	12.5 - 62.7 62.7	13.6 - 68.8 68.8	16.2 - 95.5 95.5	21.9 - 118.8 118.8
Nominal load (Q_{nh}) Central heating operation (H_i) G31 (propane)	min-max  (1)	kW	8.8 - 30.0 30.0	8.8 - 41.2 41.2	12.2 - 56.5 56.5	12.2 - 62.0 62.0	22.1 - 86.0 86.0	21.2 - 107.0 107.0
Nominal load (Q_{nh}) Central heating operation (H_s) G31 (propane)	min-max  (1)	kW	9.6 - 32.6 32.6	9.6 - 44.8 44.8	13.3 - 61.5 61.5	13.3 - 67.4 67.4	24.0 - 93.6 93.6	23.1 - 116.4 116.4
Reduced load (Q_{Y20h}) Central heating operation (H_i)	min-max  (1)	kW	7.6 - 27.9 27.9	7.6 - 38.3 38.3	10.5 - 52.5 52.5	11.3 - 57.7 57.7	13.9 - 80.0 80.0	18.2 - 99.5 99.5
Reduced load (Q_{Y20h}) Central heating operation (H_s)	min-max  (1)	kW	8.5 - 31.0 31.0	8.5 - 42.5 42.5	11.6 - 58.3 58.3	12.6 - 64.0 64.0	15.1 - 88.8 88.8	20.4 - 110.5 110.5
Full load central heating efficiency (P_n) (H_i) (80°C/60°C)		%	97.5	97.2	97.8	98.3	97.9	97.1
Full load central heating efficiency (P_a) (H_i) (80°C/60°C)		%	99.4	99.1	97.8	99.2	97.9	97.1
Full load central heating efficiency (H_i) (50°C/30°C)		%	102.9	102.9	103.8	104.6	104.1	102.5
Central heating efficiency under part load (H_i) (Return temperature 60 °C)		%	97.5	97.2	97.8	98.3	96.6	96.5
Part load central heating efficiency (P_n) (H_i) (Return temperature 30 °C)		%	108.5	108.4	108.7	108.9	108.1	108.0
Part load central heating efficiency (P_a) (H_i) (Return temperature 30 °C)		%	110.4	110.6	108.7	110.4	108.1	108.0
Full load central heating efficiency (P_n) (H_s) (80/60°C)		%	87.8	87.5	88.1	88.5	88.2	87.4
Full load central heating efficiency (P_a) (H_s) (80/60°C)		%	89.5	89.2	88.1	89.3	88.2	87.4
Full load central heating efficiency (H_s) (50/30°C)		%	92.7	92.7	93.5	94.2	93.7	92.3
Heating efficiency under part load (H_s) (Return temperature 60 °C)		%	87.8	87.5	88.1	88.5	87.0	86.9

Quinta Ace			30	45	55	65	90	115
Central heating efficiency under partial load (P_n) (H_s) (Return temperature 30 °C)		%	97.7	97.6	97.9	98.1	97.3	97.3
Central heating efficiency under partial load (P_a) (H_s) (Return temperature 30 °C)		%	99.4	99.6	97.9	99.4	97.3	97.3
(1) Factory setting								

Tab.66 Gas and flue gas data

Quinta Ace			30	45	55	65	90	115
Gas test pressure G20 (H gas)	min-max	mbar	17 - 25	17 - 25	17 - 25	17 - 25	17 - 25	17 - 25
Gas test pressure G31 (propane)	min-max	mbar	37 - 50	37 - 50	37 - 50	37 - 50	37 - 50	37 - 50
Gas consumption G20 (H gas) ⁽¹⁾	min-max	m ³ /h	0.9 - 3.2	0.9 - 4.4	1.2 - 6.0	1.3 - 6.6	1.5 - 9.1	2.1 - 11.3
Gas consumption G31 (propane)	min-max	m ³ /h	0.4 - 1.2	0.4 - 1.7	0.5 - 2.3	0.5 - 2.5	0.9 - 3.5	0.9 - 4.4
Gas resistance between boiler connection point and measurement point on the gas valve unit (measured with G20)	max	mbar	0.5	1.0	2.0	2.0	2.5	3.0
NOx annual emission G20 (BREEAM EN15502)		mg/kW h	24	24	23	23	23	23
NOx annual emission G31 (BREEAM EN15502)		mg/kW h	22	22	24	22	23	22
BREEAM		Credits	2	2	2	2	2	2
Flue gas quantity	min-max	kg/h	14 - 50	14 - 69	19 - 93	21 - 104	28 - 138	36 - 178
Flue gas temperature	min-max	°C	30 - 65	30 - 67	30 - 68	30 - 68	30 - 68	30 - 72
Maximum counter pressure		Pa	70	150	120	100	160	220
Central heating chimney efficiency (H_i) (80/60°C) at 20°C ambient temperature		%	99.4	99.1	97.8	99.2	97.9	97.1
Central heating chimney losses (H_i) (80/60°C) at 20°C ambient temperature		%	0.6	0.9	2.2	0.8	2.1	2.9
(1) Gas consumption based on lower heating value under standard conditions: T=288.15 K, p=1013.25 mbar.								

Tab.67 Central heating circuit data

Quinta Ace			30	45	55	65	90	115
Water content		l	4.3	4.3	6.4	6.4	9.4	9.4
Water operating pressure	min	bar	0.8	0.8	0.8	0.8	0.8	0.8
Water operating pressure (PMS)	max	bar	4.0	4.0	4.0	4.0	4.0	4.0
Water temperature	max	°C	110.0	110.0	110.0	110.0	110.0	110.0
Operating temperature	max	°C	90.0	90.0	90.0	90.0	90.0	90.0
Hydraulic resistance ($\Delta T=20K$)		mbar	70	114	130	163	153	250
Casing-related losses	ΔT 30°C	W	101	101	110	110	123	123
	ΔT 50°C		201	201	232	232	254	254

Tab.68 Electrical data

Quinta Ace			30	45	55	65	90	115
Supply voltage		VAC	230	230	230	230	230	230
Power consumption - Full load central heating ⁽¹⁾	max	W	40	75	81	89	114	182
Power consumption - Part load 30% central heating ⁽¹⁾	max	W	20	22	29	29	30	36

Quinta Ace			30	45	55	65	90	115
Power consumption - Minimum load central heating ⁽¹⁾	min	W	19	20	26	26	26	32
Power consumption - Stand-by (P_{sb}) ⁽¹⁾	max	W	6	6	7	7	7	6
Electrical protection index		IP	X4D	X4D	X4D	X4D	X4D	X4D
Fuses (slow)	CU-GH08	A	2.5	2.5	2.5	2.5	2.5	2.5
(1) without pump								

Tab.69 Other data

Quinta Ace			30	45	55	65	90	115
Total weight including packaging		kg	60.5	60.5	66.5	66.5	76.5	76.5
Minimum mounting weight ⁽¹⁾		kg	50	50	56	56	65.2	65.2
Average acoustic level at a distance of one metre from the boiler		dB(A)	38.3	45.1	46.7	46.7	51.6	51.1
(1) Without front panel.								

Tab.70 Technical parameters

Quinta Ace			30	45	55	65	90	115
Condensing boiler			Yes	Yes	Yes	Yes	Yes	Yes
Low-temperature boiler ⁽¹⁾			No	No	No	No	No	No
B1 boiler			No	No	No	No	No	No
Cogeneration space heater			No	No	No	No	No	No
Combination heater			No	No	No	No	No	No
Rated heat output	P_{rated}	kW	30	41	55	62	84	104
Useful heat output at nominal heat output and high temperature operation ⁽²⁾	P_4	kW	29.8	40.8	55.3	61.5	84.2	103.9
Useful heat output at 30% of rated heat output and low temperature regime ⁽¹⁾	P_1	kW	9.9	13.7	18.4	20.5	27.9	34.7
Seasonal space heating energy efficiency	η_s	%	94	94	92	94	-	-
Useful efficiency at rated heat output and high temperature regime ⁽²⁾	η_4	%	89.6	89.3	88.1	89.4	88.2	87.5
Useful efficiency at 30% of rated heat output and low temperature regime ⁽¹⁾	η_1	%	99.5	99.6	97.9	99.5	97.4	97.3
Auxiliary electricity consumption								
Full load	el_{max}	kW	0.040	0.075	0.100	0.100	0.124	0.184
Part load	el_{min}	kW	0.020	0.020	0.042	0.029	0.030	0.036
Standby mode	P_{SB}	kW	0.006	0.006	0.007	0.007	0.007	0.006
Other items								
Standby heat loss	P_{stby}	kW	0.101	0.101	0.110	0.110	0.123	0.123
Ignition burner power consumption	P_{ign}	kW	-	-	-	-	-	-
Annual energy consumption	Q_{HE}	GJ	91	125	173	188	-	-

Quinta Ace			30	45	55	65	90	115
Sound power level, indoors	L_{WA}	dB	46	53	55	55	60	59
Emissions of nitrogen oxides	NO_x	mg/kW h	42	42	48	48	53	41

(1) Low temperature means 30 °C for condensing boilers, 37 °C for low temperature boilers and 50 °C (at heater inlet) for other heating appliances.
(2) High temperature operation means 60 °C return temperature at heater inlet and 80 °C feed temperature at heater outlet.

**See**

The back cover for contact details.

12.5 Boiler pump

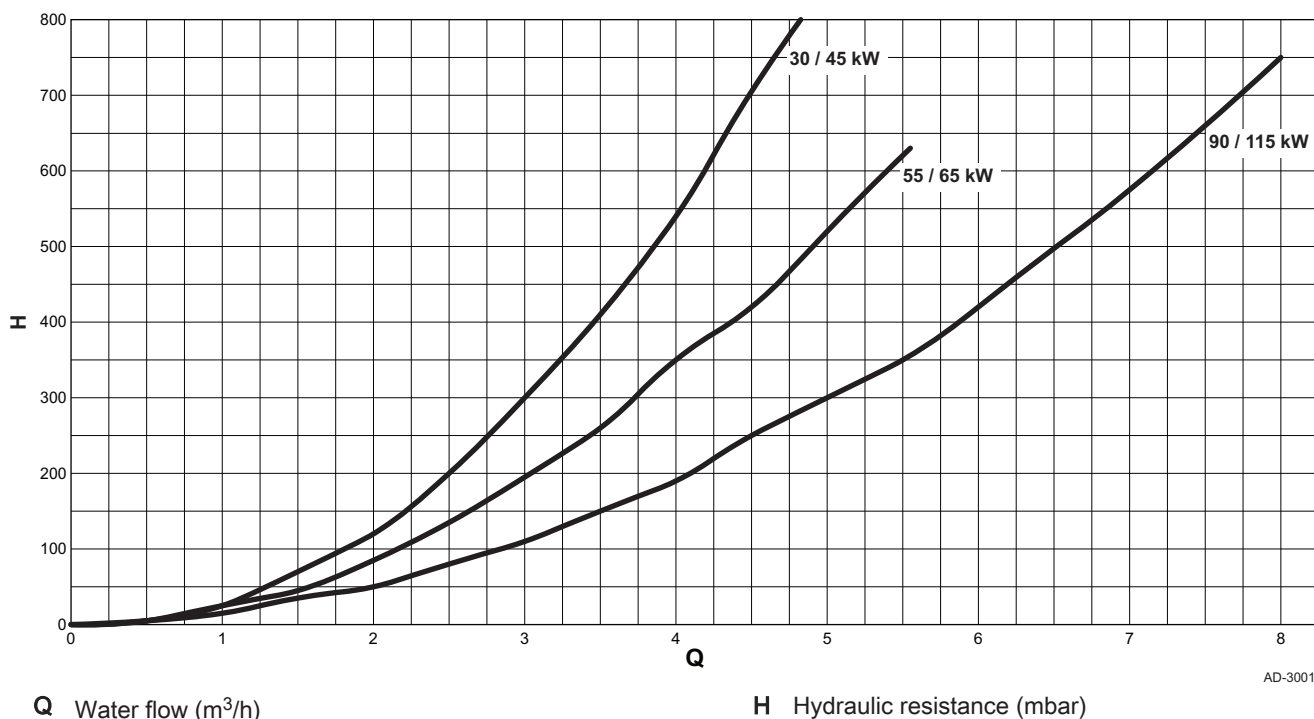
A boiler pump is not supplied with this boiler. Take the boiler resistance and system resistance into account when selecting a pump. The graph shows the hydraulic resistance at various water flow rates. The table shows some significant nominal flow data and the corresponding hydraulic resistance.

If possible, install the pump directly under the boiler on the return connection.

**Important**

When the pump is managed by the boiler's control unit, check if the deaeration program is correctly set (parameter **AP101** = 1).

Fig.82 Hydraulic resistance



Tab.71 Nominal flow data

	Unit	30	45	55	65	90	115
Q at $\Delta T = 10^\circ\text{C}$	m³/h	2,60	3,50	4,80	5,28	7,20	9,0
H at $\Delta T = 10^\circ\text{C}$	mbar	280	456	520	652	612	1000
Q at $\Delta T = 20^\circ\text{C}$	m³/h	1,30	1,75	2,40	2,64	3,60	4,50
H at $\Delta T = 20^\circ\text{C}$	mbar	70	114	130	163	153	250
Q at $\Delta T = 35^\circ\text{C}$	m³/h	-	-	-	-	-	2,55
H at $\Delta T = 35^\circ\text{C}$	mbar	-	-	-	-	-	72

	Unit	30	45	55	65	90	115
Q at $\Delta T = 40^{\circ}\text{C}$	m ³ /h	0,65	0,90	1,20	1,32	1,80	not permitted
H at $\Delta T = 40^{\circ}\text{C}$	mbar	15	30	36	45	40	not permitted

13 Appendix

13.1 ErP information

13.1.1 Product fiche

Tab.72 Product fiche

Remeha – Quinta Ace		30	45	55	65	90	115
Seasonal space heating energy efficiency class		A	A	A	A	-	-
Rated heat output (<i>Prated or Psup</i>)	kW	30	41	55	62	84	104
Seasonal space heating energy efficiency	%	94	94	92	94	-	-
Annual energy consumption	GJ	91	125	173	188	-	-
Sound power level L_{WA} indoors	dB	46	53	55	55	60	59

13.1.2 Package sheet

Fig.83 Package sheet for boilers indicating the space heating energy efficiency of the package

Seasonal space heating energy efficiency of boiler		①
		'I' %
Temperature control	Class I = 1%, Class II = 2%, Class III = 1.5%, Class IV = 2%, Class V = 3%, Class VI = 4%, Class VII = 3.5%, Class VIII = 5%	②
from fiche of temperature control		+ [] %
Supplementary boiler	Seasonal space heating energy efficiency (in %)	③
from fiche of boiler		([] - 'I') x 0.1 = ± [] %
Solar contribution	Tank rating ⁽¹⁾ A* = 0.95, A = 0.91, B = 0.86, C = 0.83, D - G = 0.81	④
from fiche of solar device	Collector size (in m ²) Tank volume (in m ³) Collector efficiency (in %)	('III' x [] + 'IV' x []) x 0.9 x ([] / 100) x [] = + [] %
(1) If tank rating is above A, use 0.95		
Supplementary heat pump	Seasonal space heating energy efficiency (in %)	⑤
from fiche of heat pump		([] - 'I') x 'II' = + [] %
Solar contribution AND Supplementary heat pump		⑥
select smaller value	0.5 x [] OR 0.5 x [] = - [] %	
Seasonal space heating energy efficiency of package		⑦
		[] %
Seasonal space heating energy efficiency class of package		
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <input type="checkbox"/> G <30% </div> <div style="text-align: center;"> <input type="checkbox"/> F ≥30% </div> <div style="text-align: center;"> <input type="checkbox"/> E ≥34% </div> <div style="text-align: center;"> <input type="checkbox"/> D ≥36% </div> <div style="text-align: center;"> <input type="checkbox"/> C ≥75% </div> <div style="text-align: center;"> <input type="checkbox"/> B ≥82% </div> <div style="text-align: center;"> <input type="checkbox"/> A ≥90% </div> <div style="text-align: center;"> <input type="checkbox"/> A⁺ ≥98% </div> <div style="text-align: center;"> <input type="checkbox"/> A⁺⁺ ≥125% </div> <div style="text-align: center;"> <input type="checkbox"/> A⁺⁺⁺ ≥150% </div> </div>		
Boiler and supplementary heat pump installed with low temperature heat emitters at 35°C ?		
from fiche of heat pump		⑦
	[] + (50 x 'II') =	[] %

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as this efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

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- I The value of the seasonal space heating energy efficiency of the preferential space heater, expressed in %.
- II The factor for weighting the heat output of preferential and supplementary heaters of a package as set out in the following table.
- III The value of the mathematical expression: $294/(11 \cdot \text{Prated})$, whereby 'Prated' is related to the preferential space heater.
- IV The value of the mathematical expression $115/(11 \cdot \text{Prated})$, whereby 'Prated' is related to the preferential space heater.

Tab.73 Weighting of boilers

$P_{\text{sup}} / (P_{\text{rated}} + P_{\text{sup}})^{(1)(2)}$	II, package without hot water storage tank	II, package with hot water storage tank
0	0	0
0.1	0.3	0.37
0.2	0.55	0.70
0.3	0.75	0.85
0.4	0.85	0.94
0.5	0.95	0.98
0.6	0.98	1.00
≥ 0.7	1.00	1.00
(1) The intermediate values are calculated by linear interpolation between the two adjacent values.		
(2) Prated is related to the preferential space heater or combination heater.		

13.2 EC Declaration of conformity

This appliance complies with the standard type described in the EC declaration of conformity. It has been manufactured and commissioned in accordance with European directives.

The original declaration of conformity is available from the manufacturer.

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