Operating instructions
Installation & Servicing Instructions

Boiler
Q 25SR
Q 38SR
Q 51SR
Q 60SR

Q 25CR
Q 38CR
Q 51CR

CE PIN 0063BQ3021

QR-Series

Explanations of symbols and signs on the Control Tower display

DHW mode selection

Heating operation mode selection
(Commissioning function when pressing > 3 sec.
For service purposes only)

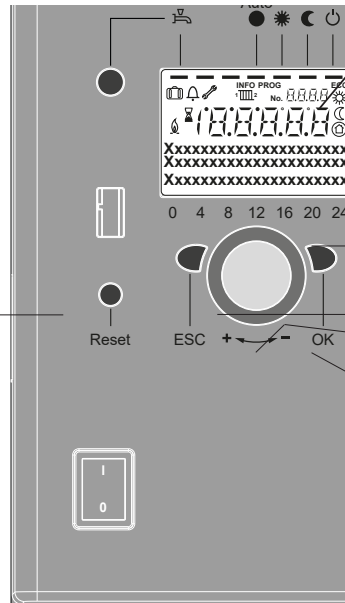Service connection
Quit menu
Reset

Info button

Confirm

Manual mode
(Deaeration mode when pressing > 3 sec.)

Chimney sweeper mode
(For service purposes only)

On/Off switch

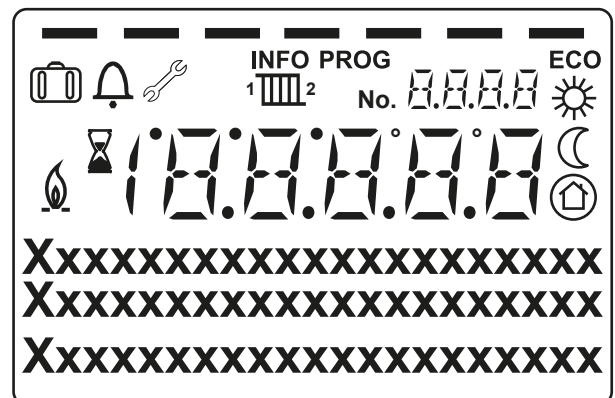|	
☼	Heat to comfort setpoint value*
☾	Heat to reduced setpoint value*
⌂	Heat to frost Protection setpoint value*
⧗	Process running - please wait
♨	Burner in operation
🔔	Fault messages
INFO	Info level activated
PROG	Programming active
ECO	Heating temporarily switched off; ECO function active
🧳	Holiday function active
₁▥₂	Reference to heating circuit
�	Manual mode / chimney sweeper mode
No.	Number of operating line (parameter number)

Functions only in combination with QAA55. NOT with OT / On-off.
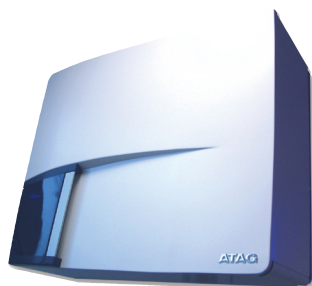
Content Operating Instructions

Important!
It is in your own interest that we should know that you have an ATAG boiler. Please fill out the warranty card completely and send it back to us. Then we can be fully at your service.

Content Installation & Servicing Instructions

1 Introduction

These operating instructions describe the functioning and the operating of the ATAG Q boilers.This manual is for the end user. For installation and servicing there is an installation & servicing instructions manual for the installer. (pag. 16).

Read this manual fully before operating the boiler. In case of doubt or errors contact your installer.

ATAG Commercial UK reserves the right to change the specifications and dimensions without prior notice.

Work on the boiler must be carried out by a competent person, (Ref: Gas Safe Register) using correctly calibrated instruments with current test certification.

When replacing parts use only ATAG Service parts.

Contact details for ATAG Heating UK Ltd can be found on the back page of this manual.

The Benchmark Scheme
ATAG Heating UK Ltd is a licensed member of the Benchmark Scheme which aims to improve the standards of installation and commissioning of domestic heating and hot water systems in the UK and to encourage regular servicing to optimise safety, efficiency and performance.
Benchmark is managed and promoted by the Heating and Hotwater Industry Council. For more information visit www.centralheating.co.uk

Please ensure that the installer has fully completed the Benchmark Checklist on the inside back pages of the installation instructions supplied with the product and that you have signed it to say that you have received a full and clear explanation of its operation. The installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales).

All installations must be notified to Local Area Building Control either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer who should, on receipt, write the Notification Number on the Benchmark Checklist.

This product should be serviced regularly to optimise its safety, efficiency and performance. The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service.

The Benchmark Checklist may be required in the event of any warranty work and as supporting documentation relating to home improvements in the optional documents section of the Home Information Pack.

2   Safety

Work on the installation should only be carried out by qualified personnel with calibrated equipment. When replacing parts, only ATAG Service components may be used.

⚠ **The device may be operated only by authorized persons who have been instructed on the operation and use of the device. Improper use may cause damage to the device and / or to the connected installation.**

⚠ **ATAG do not recommend that children play with the appliance at any time.**

⚠ **The appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.**

In case you smell gas:
- No naked flames! Do not smoke!
- Do not operate electrical switches for lights or any other appliance.
- Do not use a telephone
- Turn off gas supply at meter
- Open windows and doors
- Notify any persons in the building and leave the building at once.
- Call Gas company or installer only when outside the building

Protection for corrosion
Do not use any sprays, chlorine containing agents, solvents, paint etc. around the boiler or around the air intake supply entrance of the boiler. These substances have negative influences on the boiler and can lead to corrosion resulting in failure of the boiler.

Checking the water pressure
Check the water pressure in the central heating installation regularly.
Use only potable water for filling.
Additives only after clearance by ATAG.
Contact your installer in case of doubt.

3   Description of the boiler

Room sealed boiler
The boiler retreives its combustion air from outside then discharges the flue gasses to the outside.

Condensing
Retrieves heat from the flue gasses. Water condensates on the heat exchanger.

Modulating
Higher or lower burning according to the heat demand.

Stainless steel
Super solid kind of steel which keeps its quality for life. It will not rust or erode in contrast to composition materials, like aluminium.

The ATAG QR boiler is a room sealed, condensing and modulating central heating boiler, with or without an integrated hot water facility. This boiler is also approved for use as an open flued boiler according to flue category B23 and B33.

The boiler is provided with a compact stainless steel heat exchanger with smooth tubes. A well thought out principal using durable materials.
The boiler burns gas for supplying warmth. The heat is transferred in the heat exchanger to the water in the central heating system. By cooling down the flue gasses condensate is formed. This results in high efficiency. The condensate, which has no effect on the heat exchanger and the function of the boiler, is drained through an internal siphon.

The boiler is provided with an intelligent control system (CMS Control Management System). The boiler anticipates the heat demand of the central heating system or the hot water facility.

When an outside sensor is connected to the boiler, the boiler works weather dependantly. This means that the boiler control measures the outside temperature and flow temperature. With this data the boiler calculates the optimal flow temperature for the installation.

The boiler is equipped with a display and buttons on the front (behind the door).
The meaning of the keys and symbols are briefly described below.

A   On/Off switch
B   Back button (ESC)
C   Room temperature control button
D   Confirmation button (OK)
E   Function button for manual operation
F   Chimney sweep function button
G   Info button
H   Reset button
I   Operation mode button for heating circuit(s)*
L   Display
M   Operating mode button for DHW

The operating mode button may be locked (Setting on the OpenTherm thermostat)
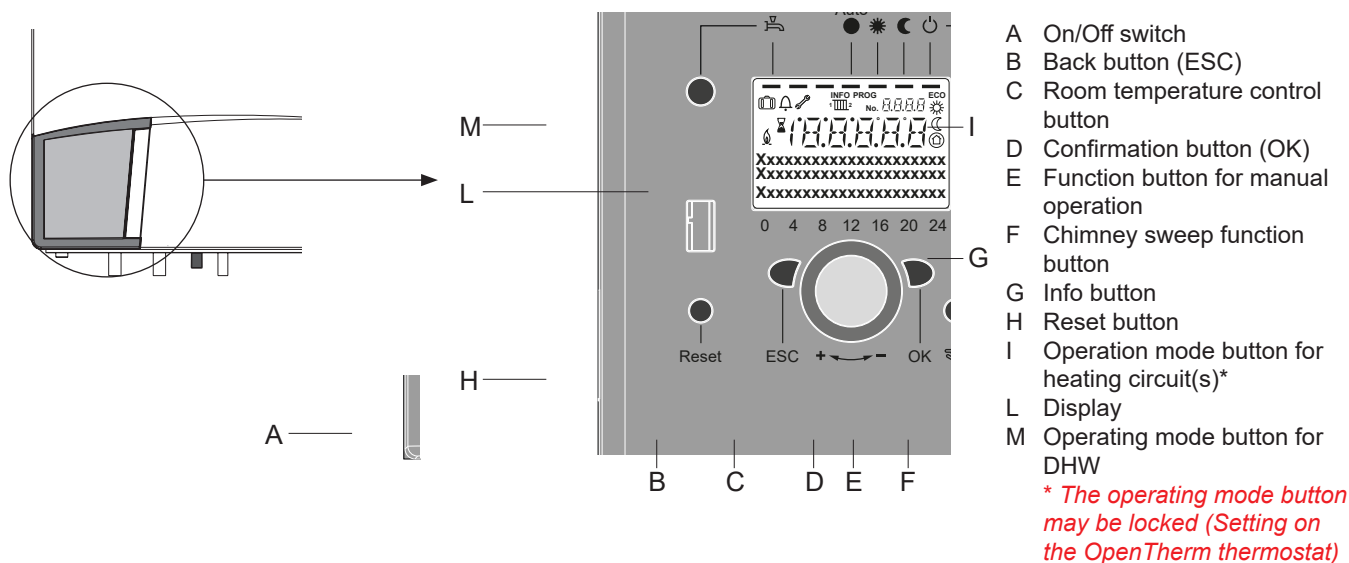
The display shows the boiler water temperature in °C as standard and the indicators under the programs that are switched on.

Meaning of the symbols on the display:

☀   Heat to comfort setpoint value*

☾   Heat to reduced setpoint value*

⌂   Heat to frost Protection setpoint value*

⧗   Process running - please wait

🔥   Burner in operation

🔔   Fault messages

INFO   Info level activated

PROG   Programming active

ECO   Heating temporarily switched off; ECO function active

🧳   Holiday function active

₁▥₂   Reference to heating circuit

🔧   Manual mode / chimney sweeper mode

No.   Number of operating line (parameter number)

Only works in combination with QAA55. NOT with OT / On-off thermostat
In software version 5.1.0, "Operating mode button locked" is displayed when one of these buttons is pressed

4.1   Boiler controls

Operating mode button for DHW (M)
For switching on the DHW preparation (Bar under the water tap in the display)
If the boiler control is configured via OpenTherm, no bars are visible.
DHW timer program via external controller is leading

Operation mode button for heating circuit(s) (I)
(Only works in combination with QAA55, NOT with OT/On-Off)
For setting 4 different operating modes for heating:

Automatic clock: Automatic operation according to timer program
                     Bar in the display visible under "AUTO" by OpenTherm

Sun 24 hr: Heating at comfort target value

Moon 24 hr: Heating at reduced value

Protection mode: Heating switched off, frost protection active

Information button (G)
Retrieval of the following information, without influence on the control
processes: Temperatures, operating condition of the heating facility/DHW, error reports

Room temperature control button (C)
With this rotating button, settings can be selected and changed during programming
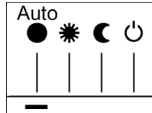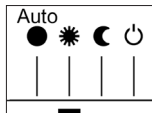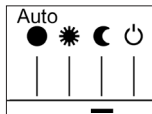and changing the room comfort temperature

Confirmation button OK (D)
Back button ESC (B)
These two buttons are needed in combination with the large rotating button (- +) for the
programming and configuration of the control unit. Settings, which cannot be changed
through the control elements, are provided by means of programming. By pushing the
ESC button you always go one step backward, whereby modified values are not taken
over. To reach the next operating level, or to store the changed values, you must
push the OK button.

Manual operation function button (E)
By pushing this button, the control unit is set to manual mode, whereby all pumps are
running, the mixer is no longer controlled and the burner is set to 60°C (Indicated by the
spanner symbol). Hold down for 3 sec. to start venting program.

Chimney sweep function button (F)
MAY ONLY TO BE OPERATED BY A QUALIFIED INSTALLER!
Push this button shortly, to put the boiler in the operating mode for measuring emissions;
renewed pushing of the button deactivates this function, or it is automatically
deactivated after 15 minutes (indicated by the spanner symbol).

Reset button (H)
By pressing this button shortly, the locked condition of the burner is deactivated.

On/Off switch (A)
Position 0: The entire facility and all connected electrical components are without
electrical power. A protection against frost is not ensured.
Position I: The entire facility and all connected electrical components are ready for
operation.

Filling and de-aeration of the ATAG QR and the heating installation
The heating installation is filled according to the standard method.
The installation must have been deaerated, both on the heating and the warm water side.
The water pressure can be read off in bar, either on the analog pressure indicator or via the Info button. As soon as the heating installation has been filled and de-aerated, the boiler will be ready for operation.

⚠️ **During the initial commissioning or after a power failure, the control system starts the automatic de-aeration program. This function runs for approximately 16 minutes and stops automatically.**

5 Replenishing the central heating system

The central heating installation needs to be filled with potable (drinking) water. For topping up the installation you use the filling loop according to the following procedure:
(If in any doubt please contact your dealer)

1 Connect the filling loop to the cold water tap;
2 Slowly open the filling loop;
3 Open the cold water tap;
4 Fill up slowly to 1.5 to 1.7 bar:
Press I key and turn the knob to "water pressure". Value on the display increases;
5 Close cold water tap;
6 Check whether the automatic de-aeration program has been running.
If not yet de-aerated:

3 sec. ✍ **Hold down the E button for more than 3 seconds. This function runs for approximately 16 minutes;**

7 De-aerate the complete installation, start at the lowest point;
8 Check the waterpressure and if necessary top it up to 1,5 to 1,7 bar;
0 Close the filling loop.

After completion of the de-aeration program, the boiler will operate again.

Check the water pressure regularly and top up the installation when necessary.
The working pressure of the installation should be between 1.5 and 1.7 bar when the installation is cold.
(Note: Before topping up the pressure, first fill the hose with water, which prevents the entry of air into the heating system).

⚠️ **It can take a while before all air has dis-appeared from a filled installation. Especially in the first week noises can be heard which indicate the presence of air. The de-aeration of the boiler will make this air disappear, which means the water pressure will reduce during this period and therefore topping up with water will be necessary to adjust the flow water temperature.**

Button	Action	Procedure	Display / Function	
(rotating button + −)	Setting up the required room temperature	**HC2 jointly with HC1** Turn the rotating button left or right Turn the rotating button again for storing with OK button or wait for 5 sec. or push ⬭ESC	comfort target value with blinking temperature display blinking temperature display in steps of 0.5° centigrade, from 10.0 to 30°C **Comfort value active** **Comfort value not active** - Basic display appears after 3 sec.	Only works in combination with QAA55, NOT with OT Works with on / off controller via H8 / H9
(rotating button + −)	Setting the required room temperature for HC1 or HC2	or **2nd HC independent of HC1** Turn rotating button left/right Then push OK Turn rotating button left/right Save with OK button or wait for 5 sec. or push ⬭ESC	Select heating circuit Heating circuit active blinking temperature display in steps of 0.5° centigrade, from 10.0 to 30°C **Comfort target value active** **Comfort target value not active** - Basic display appears after 3 sec.	
(tap symbol button)	Switching warm water operations ON or OFF	Push button	**Warm water operation ON / OFF** (segmented bar under symbol for warm water visible/invisible) - ON: Warm water preparation according to switching program - OFF: No warm water preparation - Safety function active When using OpenTherm, "operating mode button is locked" is displayed Safety functions remain active!	DHW timer program via external controller is leading
Auto ● ☀ ☾ ⏻ (operating mode button)	Change operating mode	Factory setting 1 x short push of button and then once more, short push of button once more, short push of button	**Automatic operating mode ON, with:** - heating operation according to timer program - Temperature target values according to heating program - Safety function active - Summer/Winter - automatic switching active - ECO functions active (segmented bar under corresponding symbol visible) **Continuous COMFORT heating ON, with:** - Heating operation without timer program, at comfort target value - Safety function active **Continuous REDUCED heating ON, with:** - Heating operation without timer program, at reduced target value - Safety function active - Summer/Winter - automatic switching active - ECO functions active **Automatic safety mode ON, with:** - Heating operations switched off - Temperature according to frost protection value - Safety function active When using OpenTherm, "operating mode button is locked" is displayed Safety functions remain active!	Only works in combination with QAA55, NOT with OT Works with on / off controller via H8 / H9
	Control stop function	1 x push button (> 3 sec) push button once more (> 3 sec)	**304: Control stop function Set target value** Basic display appears after 3 sec.	

Button	Action	Procedure	Display / Function	

(info button i)	Display of various information	1 x push button
		push button again
		push button again
		
		Push button
			INFO section is displayed
			- Boiler status - Room temperature
			                              - Room temperature minimum
			- Warm water status - Room temperature maximum
			- Status heating circuit 1 - Outdoor temperature
			- Status heating circuit 2 - Minimum outdoor temperature
			                              - Maximum outdoor temperature
			- Time / date - Water temperature 1
			- Error message - Boiler temperature
			- Maintenance report - Flow temperature
			(Display of the information lines depends on the configuration)
			Back to basic display; INFO segment is suppressed	

(manual button)	Operating mode according to target values that are set manually Change of the factory setting for boiler temperature	short push of button short push of button ⬭i short push of button ⬭OK Rotating button turn -/+ short push of button ⬭OK short push of button ⬭ESC short push of button ⬭	**Manual operating mode ON** (spanner symbol is visible) - Heating operations at preset boiler temperature (factory setting = 60°C) **301: Manual operation mode Set target value for manual operation?** Blinking temperature display Set required target value **Boiler status** Manual operating mode OFF (spanner symbol disappears)	
	De-aeration function	1 x push button (> 3 sec) push button once more (> 3 sec)	312: De-aeration function ON De-aeration function OFF	
(chimney sweep button)	Activation of chimney sweep function	Push button (> 3 sec) push button once more (> 3 sec)	Chimney sweep function ON Chimney sweep function OFF	
☀ / ☾ (button)	Short-term reduction of room temperature at QAA75 / 78	Push button push button again	Heating at reduced target value Heating at comfort target value	Only works in combination with QAA55, NOT with OT/On-Off
RESET	Reset button	Push button (< 3 sec.) push button again > 3 sec.	Facility is manually locked, unreleased equipment is unlocked, alarm bell disappears	

⬭OK = Confirmation   ⬭ESC = Abort or back to basic display

MAY ONLY BE OPERATED BY A QUALIFIED INSTALLER!

6.1 Parameters end users

Basic display "Boiler temperature"
- Push OK button once
- Use +- rotating button for selecting for instance "Drinking water menu"
- Push OK button once
- Use +- rotating button, for instance in the drinking water menu, for selecting "Parameter no. 1612 - Reduced target value"
- Push OK button once
- Use +- rotating button to change the currently set value
- Push OK button once -> the value is stored
- Push 2 x ESC to return to the basic display "Boiler temperature . ."

Time programs are not active when using an OpenTherm thermostat, however, they are active when switching on and off via H8 / H9

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting	
Time of day and date	1	Hours / Minutes	hh:mm	00:00	23.59	--.--	
	2	Day / Month	dd:MM	01.01	31.12.	--.--	
	3	Year	yyyy	2004	2099	--.--	
Operator section	20	Language	-	English, German, French, Italian, Danish, Dutch, Spanish, Czech, Slovenian, Turkish		German	
Time program HC 1	500	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	
	501	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	502	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	503	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	504	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	505	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	506	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	516	Default values	-	Yes	No	No	
Time program HC 2 (When activated)	520	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	Only works in combination with QAA55, NOT with OT Works with on / off controller via H8 / H9
	521	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	522	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	523	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	524	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	525	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	526	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	536	Default values	-	Yes	No	No	
Time program 3/ HC3	540	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	
	541	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	542	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	543	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	544	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	545	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	546	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	556	Default values	-	Yes	No	No	
Time program 4/ DHW	560	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	Only if parameter 6359 is active
	561	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	562	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	563	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	564	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	565	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	566	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	576	Default values	-	Yes	No	No	

Operating Instructions ATAG QR-Series

Parameters end users

| Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting	
Time program 5	600	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	
	601	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	602	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	603	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	604	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	605	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	606	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	616	Default values	-	Yes	No	No	
Holidays HC1	641	Preselection	-	Period 1, 2, 3, 4, 5, 6, 7, 8		Period 1	
	642	Period Start Day / Month	tt.MM	01.01	31.12	--.--	
	643	Periode End Day / Month	tt.MM	01.01	31.12	--.--	
	648	Operating level	-	Frost protection, Reduced	Frost protection	Frost protection	Only works in combination with QAA55, NOT with OT
Holidays HC2	651	Preselection	-	Period 1, 2, 3, 4, 5, 6, 7, 8		Period 1	
(When activated)	652	Period Start Day / Month	tt.MM	01.01	31.12	--.--	Works with on / off controller via H8 / H9
	653	Periode End Day / Month	tt.MM	01.01	31.12	--.--	
	658	Operating level	-	Frost protection, Reduced	Frost protection	Frost protection	
HC1	710	Comfort setpoint	°C	Value from Line no. 712	35	20.0	
	712	Reduced setpoint	°C	4	Value from Line no. 710	16.0	
	714	Frost protection setpoint	°C	4	Value from Line no. 712	10.0	
	720	Heating curve slope	-	0.10	4.00	1.50	
	730	Summer/winter heating limit	°C	---/8	30	20	
HC 2	1010	Comfort setpoint	°C	Value from Line no. 1012	35	20.0	
	1012	Reduced setpoint	°C	4	Value from Line no. 1010	16.0	
	1014	Frost protection setpoint	°C	4	Value from Line no. 1012	10.0	
(When activated)	1020	Heating curve slope	-	0.10	4.00	0.8	
	1030	Summer/winter heating limit	°C	---/8	30	0	
DHW	1600	Operating mode	-	Off, On, Eco		Off	
	1610	Nominal setpoint	°C	Value from Line no. 1612	80	55	
	1612	Reduced setpoint	°C	8	Value from Line no. 1610	40	
Swimming pool	2055	Pool setpoint solar heating	°C	8	80	26	
	2056	Pool sepoint boiler heating	°C	8	80	22	
Boiler	2214	Setpoint manual control	°C	10	90	50	
Error	6700	Error message	-	-	-	Indication only	
	6705	SW Diagnose Code	-	-	-	Indication only	
	6706	Burner ctrl phase lockout pos	-	-	-	Indication only	

Display of information
The information button can be used for displaying different information.

Possible information values
Depending on the type of installation, its configuration and the operating condition, individual lines of information may not be visible.
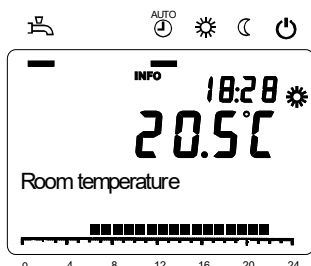
- Error message (🔔 or 🔧 -symbol)
- Maintenance report
- Room temperature
- Room temperature minimum
- Room temperature maximum
- Boiler temperature
- Outdoor temperature
- Outdoor temperature minimum
- Outdoor temperature maximum
- DHW temperature 1
- Boiler status
- DHW status
- Heating circuit status 1/2
- Time / date
- Customer service telephone

7   Turning the boiler off

In case of holidays, for example:
Make sure there is no heat demand: set the room thermostat low*.

DHW (Hot water)
Switch off DHW program: Press the DHW function button (M) until the lowest value is reached. The beam (bar) under the tap disappears.
Switching on works in reverse order.

Heating (Only works in combination with QAA55, NOT with OT/On-Off)
Switch off the heating program: Press the heating mode key (I) until the bar is at the far right of the display = frost protection
Switching on works in reverse order.

In case of work on the central heating system:
Make sure there is no heat demand: no open hot water tap and room thermostat low. Set the main switch to 0 and pull the plug out of the wall socket. When the boiler is being drained one should take into account that a part of the heating water will remain in the boiler. When risk of frost arises one should take care that the remaining central heating water in the boiler does not freeze.

8 Error, maintenance and warranty

Error message / Maintenance
In exceptional cases, one of the following symbols will be displayed in the default display:
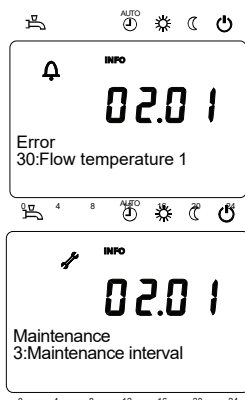
🔔 Error messages
An error has been detected in the boiler, when this symbol is shown. Detailed information is available by pushing the information button.
With On / Off thermostat: if the thermostat is OFF (contact open), the 🔔 symbol will be displayed. This does not affect the operation. No intervention required.

🔧 Maintenance or special mode
When this symbol is displayed, then a maintenance report is displayed or the boiler is in special mode. Detailed information is available by pushing the information button.

If you discover any leaks from the boiler contact your installer.

The casing of the boiler consists of metal and plastic parts which can be cleaned with a normal non abrasive cleaning agent.

You can find the warranty conditions in the warranty card which is supplied with the boiler.

9 Disposal of the product

This product should be handed in at a designated collection point, e.g. by handing it in at a duly authorized reseller when purchasing a similar product, or at an authorized collection site for recycling products wich contains electrical and electronic equipment (EEE) and batteries and accumulators. Because of the potentially hazardous substances that usually accompany EEE, improper handling of this type of waste could have a possible impact on the environment and human health.
Your cooperation in the proper disposal of this product will contribute to the effective usage of natural resources.
For more information on recycling this product, please contact your city office, local waste disposal facilities, official service for chemical waste, landfill site, or your supplier.

Explanations of symbols and signs on the Control Tower display

DHW mode selection

Heating operation mode selection
(Commissioning function when pressing > 3 sec.
For service purposes only)

Service connection

Quit menu

Reset

Info button

Confirm

Manual mode
(Deaeration mode when
pressing > 3 sec.)

Chimney sweeper mode
(For service purposes only)

On/Off switch

Symbol	Description
☼	Heat to comfort setpoint value*
☾	Heat to reduced setpoint value*
⌂	Heat to frost Protection setpoint value*
⧗	Process running - please wait
⚶	Burner in operation
⍾	Fault messages
INFO	Info level activated
PROG	Programming active
ECO	Heating temporarily switched off; ECO function active
🧳	Holiday function active
₁▥₂	Reference to heating circuit
⚘	Manual mode / chimney sweeper mode
No.	Number of operating line (parameter number)

Only works in combination with QAA55. NOT with OT / On-off thermostat

Content

⚠ **Work on the installation should only be carried out by qualified personnel with calibrated equipment and appropriate tools.**

1   Introduction

These instructions describe the functioning, installation, use and primary maintenance of ATAG QR series boilers for the United Kingdom.

These instructions are intended for the use by Gas Safe Register approved contractors in connection with the installation and putting into operation of ATAG boilers. It is advisable to read these instructions thoroughly, well in advance of installation. ATAG is not liable for the consequences of mistakes or shortcomings which have found their way into the installation instructions or user's manual. Further, ATAG reserves the right to alter its products without prior notification.

⚠️ **When delivering the unit, give the customer clear instructions concerning its use; present the customer with the user's manual and card.**

Each unit is fitted with an data plate. Consult the details on this plate to verify whether the unit is compliant with its intended location, e.g.: gas type, power source and exhaust classification.
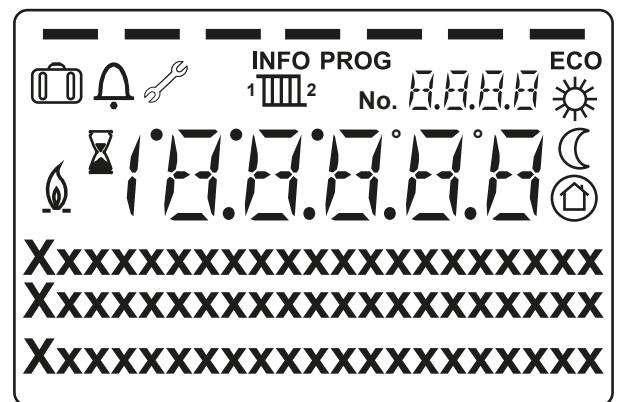
On completion of the installation the installer or commissioning engineer must fill out and complete the Benchmark Commissioning Checklist found on page 92 of this manual and hand this to the customer for future record keeping. The Benchmark Service Record must also be completed by the service agent following each service call, and return to the customer. A copy of the Benchmark Commissioning Checklist must be returned to ATAG Commercial UK, along with the warranty registration card to register the appliance for the standard warranty benefits.

Relevant Installation, Service and User manuals:
- ATAG Cascade   Hydraulic cascade system
- ATAG Duopass   Flue system individual

2   Rules

The following regulations apply to installation of ATAG QR series boilers:

Legislation and Regulations
Gas Safety (Installation and Use). All gas appliances must by law, be installed by a competent person, eg. Members of Gas Safe Register and in accordance with the current Gas Safety Regulation. Failure to install appliance correctly could lead to prosecution.
All Gas Safe Register approved contractors carry a Gas Safe Register ID Card and have a registration number. You can call Gas Safe Register direct on 01256 372300

British Standards
BS5440 parts 1 & 2 - Installation & Maintenance of Flues & Ventilation for gas appliances not exceeding 70kW input
BS6644 - Specification for the Installation & Maintenance of hot water boilers of rated inputs between 70kW & 1.8MW
BS 6798 - Installation of gas fired hot water boilers of rated input not exceeding 70 kW.
BS6891 - Specification for the installation and maintenance of low pressure gas installation pipework of up to 35 mm (R1¼)
BS 7074 - Application, selection and installation of expansion vessels and ancillary equipment for sealed water systems.
BS 8552 - Sampling & Monitoring of Water from Building Services Closed Systems
BS EN 60335 Pt1 - Safety of household and similar electrical appliances. General requirements
BS EN 12828 - Heating Systems in Buildings - Design for Water Based Heating Systems)
BS EN 12831 - Heating Systems in buildings: Method for calculation of the design heat load.
BS EN 14336 - Heating Systems in buildings: Installation and commissioning of water based heating systems.

IGEM Documents

IGE/UP/1&1A - Strength testing, tightness testing and direct purging of small, low pressure commercial Natural Gas installations.
IGE/UP/2 - Installation pipework on commercial premises
IGE/UP/10 - Installation of flued gas appliances - applicable to light commercial installations

UK Regulation

Clean Air Act 1993 - applicable to light commercial installations
IEE Regulations
Building Regulations
Gas Safety (Installation & Use) Regulations

Other Guidance

BSRIA Documents -
BG29/2012 - (Pre-commissioning & Cleaning of Pipework Systems)
BG50/2013 - Water Treatment for Closed Heating & Cooling Systems)
ICOM document 'Water Treatment & Conditioning of Commercial Heating Systems'

In addition to the above regulations this appliance must be installed in compliance with the current IEE Regulations, the Building Standards (Scotland Consolidation) Regulations. Regulations and bye laws of the Local Water Authority and the Current Health and Safety Regulation.

The Benchmark Scheme

Benchmark places responsibilities on both manufacturers and installers. The purpose is to ensure that customers are provided with the correct equipment for their needs, that it is installed, commissioned and serviced in accordance with the manufacturer's instructions by competent persons and that it meets the requirements of the appropriate Building Regulations. The Benchmark Checklist can be used to demonstrate compliance with Building Regulations and should be provided to the customer for future reference.

Installers are required to carry out installation, commissioning and servicing work in accordance with the Benchmark Code of Practice which is available from the Heating and Hotwater Industry Council who manage and promote the Scheme.
Visit www.centralheating.co.uk for more information.

The current, Electricity at Work Regulation must be complied with and also be in accordance with the relevant and current editions of the British Standards.
The ATAG QR boiler is a certified appliance and must not be modified or installed in any way contrary to this Installation Manual. Manufacturers instructions must not be taken in any way as overriding statutory obligations.
The ATAG QR is a central heating unit with an optional integrated hot water function. These units must be connected according to these instructions and all installation norms in respect of the part of the unit to be connected.

⚠ **The device may be operated only by authorized persons who have been instructed on the operation and use of the device. Improper use may cause damage to the device and / or to the connected installation.**

⚠ **The appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions.**

⚠ **ATAG do not recommend that children play with the appliance at any time.**

Observe the following rules of safety:
- All work on the unit must take place in a dry environment.
- ATAG units may never be in operation without their housing, except in connection with maintenance or adjustments (see Chapter 10 and 11).
- Never allow electrical or electronic components to come into contact with water.

Carry out the following tasks in connection with maintenance, etc. to an already-installed unit:
- Shut down all programmes
- Close the gas tap
- Remove the plug from the wall socket
- Close the stop cock of the unit's intake connection

Take note of the following when maintenance or adjustments are needed:
- The unit must be able to function during these activities; for this reason, the unit's supply voltage, gas pressure and water pressure must be maintained. Ensure that these is not a source of potential danger during these activities.

⚠ **Following maintenance or other activities; always check the installation of all parts through which gas flows using leak detection fluid (LDF).**

⚠ **Following maintenance or other activities, always replace the housing and secure it with the screw behind the door at the front of the casing.**

The following (safety) symbols may be encountered in these installation instructions and on the unit:

❋ **This symbol indicates that the unit must be stored away from frost.**

⊻ **This symbol indicates that the packaging and/or contents can be damaged as a result of insufficient care taken during transport.**

☂ **This symbol indicates that, whilst still in its packaging, the unit must be protected from weather conditions during transport and storage.**

🔧 **KEY-symbol. This symbol indicates that assembly or dismantling, must be carried out.**

⚠ **ATTENTION symbol. This symbol indicates that extra attention must be paid in connection with a particular operation.**

💡 **Useful tip or advice**

3   Scope of the supply

The boiler is supplied ready for use. The supply kit is composed as follows:

- Boiler with casing;
- Automatic vent (inside the boiler);
- Safety valve (inside the boiler);
- Suspension bracket
- Draining valve with T-piece;
- Fixing material consisting of plugs and screws;

- Gas isolation valve
- Concentric flue adapter 80/125;
- Template on the package wrapper;
- Installation instructions;
- Operating manual;
- Warranty card;
- Benchmark logbook.

4   Description of the boiler

Room sealed boiler
The boiler retreives its combustion air to outside then discharges the flue gasses to the outside.

Condensing
Retrieves heat from the flue gasses. Water condensates on the heat exchanger.

Modulating
Higher or lower burning according to the heat demand.

Stainless
Super solid kind of steel which keeps its quality for life. It will not rust or erode in contrast to composition materials, like aluminium.

The ATAG QR boiler is a room sealed, condensing and modulating central heating boiler, with or without an integrated hot water facility.

The boiler is provided with a compact stainless steel heat exchanger with smooth tubes. A well thought out principal using durable materials.
The boiler burns gas for supplying warmth. The heat is transferred in the heat exchanger to the water in the central heating system. By cooling down the flue gasses condensate is formed. This results in high efficiency. The condensate, which has no effect on the heat exchanger and the function of the boiler, is drained through an internal siphon.

The boiler is provided with an intelligent control system (CMS Control Management System). The boiler anticipates the heat demand of the central heating system or the hot water facility.

When an outside sensor is connected to the boiler works weather dependantly. This means that the boiler control measures the outside temperature and flow temperature. With this data the boiler calculates the optimal flow temperature for the installation.

Explanation of the type indication: ATAG Q 51CR
- Q = Type
- 51 = Nominal load in kW
- C = Combi (S = Solo)
- R = Refresh

The boiler has been tested according to valid CE* standards and has a CE* certificate and ErP & Energy Labelling EU 813/2013 & EU 1369/2017 A-rating.

Statement: No banned materials including asbestos, mercury, CFC's have not or will not be included in the product.
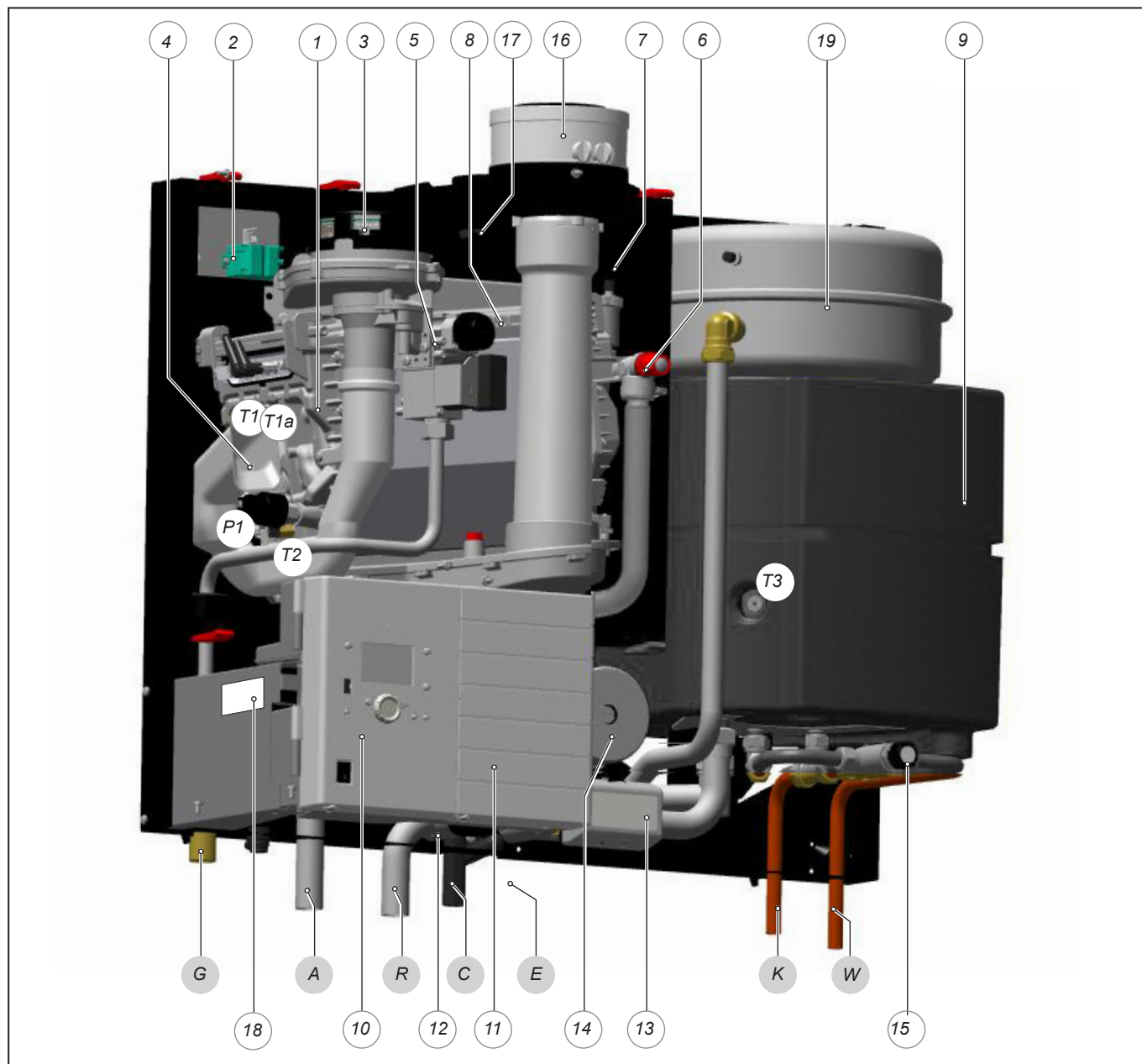
ATAG QR   figure 4.a

1 heat exchanger	9 cylinder DHW, 12l (combi)	17 combustion air supply
2 ignition unit	10 operating panel	18 type plate
3 fan unit	11 Control Tower (CMS)	19 expansion vessel, only Q25CR
4 air inlet damper	12 water filter return CH	and Q38CR (14 liter)
5 gas valve	13 three-way valve	
6 safety valve	14 circulation pump (A-label)	
7 automatic air vent	15 thermostatic mixing valve	
8 ceramic burner cassette	16 flue gas discharge	

T1 flow sensor	G gas pipe	E expansion vessel pipe
T1a secondary flow sensor (Q60SR)	A flow connection central heating	K cold water pipe (combi)
T2 return sensor	R return connection central heating	W hot water pipe (combi)
T3 cylinder sensor DHW (combi)	C condensation / safety discharge	
P1 water pressure sensor	pipe	

5   Mounting the boiler

⚠️ **Install the boiler in a well-ventilated boiler room in accordance to the actual local regulations BS5440-2:2000.**

The room where the boiler will be placed must always be frost free.

It is NOT necessary to have a purpose provided air vent in the room or internal space in which the boiler is installed. Neither is it necessary to ventilate a cupboard or compartment in which the boiler is installed, due to the extremely low surface temperature of the boiler casing during operation. Therefore the requirements of BS 6798, Clause 12, and BS5440:2 may be disregarded.

The boiler can be mounted practically to any wall with the suspension bracket and the enclosed fixing equipment. The wall must be flat and of sufficient strength in order to be able to carry the boiler weight with its water content.
Above the boiler there must be at least 250 mm working space in order to be able to fit a coaxial flue system or a twin supply. On the left side of the boiler at least 50 mm and on the right side 10 mm must be reserved to allow fitting or removing of casing. The location of the boiler can be determined by using the template located inside the boiler packaging.

⚠️ **Lift the boiler only by the boilers rear wall plate.**

> **Lifting and carrying precautions:**
> - Lift only a manageable weight, or ask for help.
> - When lifting the boiler, bend the knees, and keep the back straight and feet apart.
> - Do not lift and twist at the same time.
> - Lift and carry the boiler close to the body.
> - Wear protective clothing and gloves to protect from any sharp edges.

The boiler has the following connection pipes;
- The central heating pipes.
  These can be connected to the installation by means of compression fittings;
- The gas pipe.
  It is provided with a female thread into which the tail piece of the supplied gas isolation valve can be screwed;
- The condensation drain pipe.
  It consists of an oval 24 mm plastic pipe. The drain pipe can be connected to this by means of an open connection. If the open connection is fitted in a different location, then the pipe can be lengthened by means of a 32 mm PVC sleeve;
- The flue gas exhaust system and air supply system.
  It consists of a concentric connection 80/125 mm. The Q51SR and Q60SR are supplied with this feature for converting from the standard 2x 80 mm to concentric 80/125 mm.
- Cold and hot water pipes.
  Only Combi boilers: *These consist of 15 mm copper pipe and can be connected to the installation by means of compression fittings.*

⚠ **It is recommended that isolation valves are fitted to all heating and hot water connections to facilitate ease of future maintenance.**

⚠ **It is advisable to spray-clean all of the unit's connecting pipes and/or to spray-clean/blow-clean the installation before connecting it to the unit.**

6.1   Central heating system

Connect the central heating system according to the actual regulations.

The boiler pipes can be connected to the installation by means of compression fittings. Reducers should be used for connecting to thick-walled pipe (welded or threaded).

⚠ **When removing the plastic sealing caps from the pipes, contaminated testing water may be released.**

The boiler has a self-adjusting and self-protecting control system for the load and the pump capacity. This means the temperature difference between the flow and return water is checked. Table 6.1.a shows the water displacement which supplies the circulation pump at certain installation resistance.

	Boiler type	Pump type	Water flow rate		Permissible installation resistance	
		UPM2	l/min	l/h	kPa	mbar
Combi	**Q25CR**	20-70	15.8	950	25	250
	Q38CR	20-70	24.0	1440	20	200
	Q51CR	20-70	Low velocity header required			
Solo	**Q25SR**	20-70	15.8	950	25	250
	Q38SR	20-70	24.0	1440	20	200
	Q51SR	20-70	Low velocity header required			
	Q60SR	20-70	Low velocity header required			

Installation resistance   table 6.1.a

⚠ **A low velocity header must be connected to the Q51CR, Q51SR and Q60SR to prevent flow problems over the boiler.**

ATAG can supply the AA1OV09U Low velocity header for 1 boiler. This can be connected directly under the boiler on the flow and return pipe.
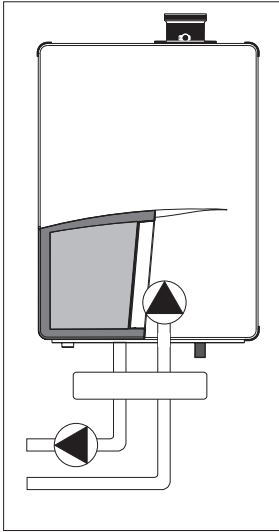
external installation pump
with low velocity header
figure 6.1.a

If the installation resistance is higher than the stated value the pump will rotate at maximum pump capacity and the load will be adjusted until an acceptable temperature difference between flow and return water has been obtained. If, after this, the temperature difference remains to much then the boiler will switch itself off and wait until an acceptable temperature has arisen (∆T 20°C).

If an unacceptable temperature is detected, then the control will repeatedly try to achieve water flow, and if this does not work then the boiler will switch off.

If the capacity of the boiler pump is insufficient, an extra external pump can be installed in combination with a low velocity header in series with the boiler. The electrical side of this external circulation pump can be connected in the Control Panel, which means this pump switches at the same times as the boiler pump.

The maximum absorbed current consumption of the external circulation pump may be 230 W (1 Amp). The extra external pump must be selected according the installation resistance and required flow.

As standard the boiler is provided with a water filter in the return pipe of the boiler. With this, possible contamination of the central heating water is prevented from ending up in the boiler. The boiler is also provided with an internal safety valve set at 3 bar. This is connected to the waste discharge together with the condensation discharge.

If all, or a substantial part of the radiators have thermostatic radiator valves or if 2-port zone valve are installed, an automatic by-pass valve must be used to prevent flow rate problems. The automatic by-pass valve used should have the same diameter as the connecting diameter of the supply and return pipe of the boiler. A decrease of pipe diameter between boiler and by-pass is not allowed. See also Annex C.

⚠ **The boiler is designed to be used on sealed system only.**

⚠ **Additives in the installation water are only permitted in consultation with the country distributor. See chapter 6.4.**

When using more than one boiler in an installation please refer to the cascade installation instructions.

6.2   Expansion vessel

The central heating system must be provided with an expansion vessel. The expansion vessel which is used should be geared to the water content of the installation. The pre-charge pressure depends on the installation height above the mounted expansion vessel. See table 6.2.a.

installation height above the expansion vessel	pre-charge pressure of the expansion vessel
5 m	0,5 bar
10 m	1,0 bar
15 m	1,5 bar

choice of expansion vessel   table 6.2.a

The Q51CR Combi boiler is provided with an expansion vessel connection. This pipe is connected between the three way valve and boiler pump. This prevents the expanding water, during hot water production, from being closed off from the expansion vessel, when the thermostatic radiator valves are fully closed. A second expansion vessel in the installation is not a problem.
The Solo boilers Q25SR and Q38SR are provided with an expansion vessel connection. When this boiler is combined with a cylinder, the expansion vessel connection is included in the internal piping of the cylinder circuit, to which the expansion vessel can be connected.

⚠ **In connection with correct functioning of the boiler it is necessary for the expansion vessel to be connected to the expansion vessel pipe of the boiler.**

The Solo boilers Q51SR and Q60SR are not provided with an expansion vessel connection. When one of these Solo boilers is combined with a cylinder then one has to take into account that the expansion vessel should be connected between the three-way valve and the boiler circulation pump.

6.3 Underfloor heating system (plastic pipes)

When connecting or using an underfloor heating system, designed with plastic pipes, or plastic pipes are used elsewhere in the installation,one should ensure that the plastic pipes used comply with the DIN is BS7291-1: 1990 standard. It is set out in this standard that the pipes may not have oxygen permeability higher than 0.1 g/m³.d at 40°C. If the system does not comply with this DIN standard, the underfloor heating component will have to be separated from the central heating appliance by means of a plate exchanger.

⚠️ **No recourse can be made to the terms of the warranty in the event of failure to observe the regulations pertaining to plastic underfloor heating pipes.**

6.4 Water quality

Fill the installation with drinking water.

In most cases, a heating system can be filled with water according to national standards for water and treatment of this water is not necessary.
In order to avoid problems with the CH-installations, the quality of the filling water has to meet the specifications mentioned in table 6.4.a:
If the filling water does not meet the required specifications, you are advised to treat the water to such an extent that it does meet the required specifications.

⚠️ **The warranty becomes invalid, if the installation has not been flushed and/or the quality of the filling water does not meet the specifications recommended by ATAG Commercial UK Always contact ATAG Commercial UK in advance, if things are not clear or you wish to discuss any deviations. Without approval, the warranty becomes invalid.**

Installation:
- The use of groundwater, demi-water and distilled water is prohibited. (on the next page you will find an explanation of these definitions)
- If the drinking water quality meets the specifications mentioned in table 6.5.a, you can start flushing the installation before installing the device.
- Whilst flushing, corrosion products (magnetite), fitting products, cutting oil and other undesirable products have to be removed.
- Another possibility is to remove the pollution by installing a filter. The filter type has to fit the type and grain size of the pollution. ATAG Commercial UK recommends filter usage.
- In this case, the whole piping system should be taken into consideration.
- The CH-installation has to be properly vented before using the system. For that purpose, we refer to the commissioning chapter.
- If a regular water top up is required (>5% on an annual basis), then there is a structural problem and an installer has to solve the problem. Regularly adding fresh water to the system also adds additional calcium and oxygen implying that magnetite and calcium residues can continue. The result may be blockages and/or leakages.
- The use of Frost Protection and other additives requires periodical quality checks of the filling water in accordance with the period laid down by the additives supplier.
- Chemical additions are to be avoided and should only be used afterATAG Commercial UK has approved their corresponding use.
- Should you wish to achieve the required water quality by using chemical additives, then this is your own responsibility. The warranty on the product delivered by ATAG Commercial UK expires, if the water quality does not meet ATAG Heating's specifications or the chemical additives have not been approved by ATAG Commercial UK.
- On installation and during additions or changes at a later stage, ATAG Commercial UK recommends to keep a record of the type of water used, its quality at the time, and if applicable, which additives and quantities were added (see Annex B - System water addetives on page 78.

Parameter	Value
Water type	Potable water Softened water
pH	6.0-8.5
Conductivity (at 20°C in μS/cm)	Max. 2500
Iron (ppm)	Max. 0.2
Hardness (°dH):	
Installation volume/capacity <20 l/kW	1-12
Installation volume/capacity >=20 l/kW	1-7
Oxygen	No oxygen diffusion allowed during operation. Max. 5% filling water addition annually
Corrosion inhibitors	Refer to Additives Attachment
pH increasing or lowering agents	Refer to Additives Attachment
Frost Protection additives	Refer to Additives Attachment
Other chemical additives	Refer to Additives Attachment
Solid substances	Not allowed
Residues of processing water not forming part of the drinking water	Not allowed

table 6.4.a

Water quality in DHW facility

Parameter	Value
Water type	Potable water
pH	7.0-9.5
Conductivity (at 20°C in μS/cm)	Max. 2500
Chloride (ppm)	Max. 150
Iron (ppm)	Max. 0.2
Hardness (°dH)	1-12
Number of bacterial colonies at 22°C (number/ml). pr EN ISO 6222	Max. 100

table 6.4.b

- When the amount of chloride is above the required specifications mentioned above in table 6.4.b, it is necessary to apply an active anode in case of the use of a DHW cylinder. If this is not met it will void the warranty for DHW parts of the installation.
- When the amount of chloride is above the required specifications mentioned above in table 6.4.b, in case of the use of a combi boiler will void the warranty for DHW parts of the boiler.

Water type definition:
Potable water: Tap water compliant with the European drinking water guideline: 98/83/EG dated 3 November 1998.
Softened water: Water with partly de-ionised calcium and magnesium.
Demi-water: Virtually completely demineralised water (very low conductivity)
Distilled water: Water no longer containing minerals.

6.5   Gas connection

The appliance pipe is fitted with an internal thread, into which the tail piece of the gas isolation valve can be screwed.

United Kingdom:
The gas supply must comply to the current Gas Safety Regulations.

The connection to the appliance must include a suitable method of disconnection and a gas control cock must be installed adjacent to the appliance for isolation purposes. The nominal inlet working gas pressure measured at the appliance should be 20 mbar for Nat gas (G20).

⚠ **Make sure that the gas pipe work does not contain dirt, particularly with new pipes.**

When the boiler has to be converted from natural gas to LPG, ATAG provides special kits for this purpose. Special instructions are supplied with the kit.

⚠ **Always check the installation of all of the parts through which gas flows using leak detection fluid (LDF).**

6.6   Hot water supply

Connection of the drinking water installation should be done according to the national water laws.

The sanitary water pipes can be connected to the installation by means of compression fittings. The cold water inlet on the Combi boilers must be provided with the following (counted in the water flow direction):
Flow restrictor (supplied), Safety group, Expansion vessel 6bar (potable water, blue).

A flow restrictor must be fitted in the cold water pipe. The flow restrictor ensures that a quantity of water is supplied which has a guaranteed outlet temperature of 60°C (assuming a cold water temperature of 10°C). The quantity of water is virtually unaffected by the water pressure.

With a water pressure lower than 1.5 bar it is advisable to remove the inside mechanism of the flow restrictor.

6.7   Condensation drain pipe

ATAG Condensing boilers have the top ErP & Energy Labelling EU 813/2013 & EU 1369/2017 band A Classification for high energy efficiency in heating and domestic hot water.

All ATAG wall hung gas fired condensing boilers contain a syphonic condensate trap to collect and realease condensate.

The amount of condensate formed is determind by the type of boilers and the water temperature produced by the boiler.

Condensate pipework.

Use plastic pipework of a diameter no less than 25mm.

Routing of the pipework,

Wherever possible, the condensate pipework should be routed internally to prevent freezing.
The condensate pipework must fall at least 50mm per metre towards the outlet and take the shortest possible route
Support the pipe at least every 50 cm for near horizontal sections and 1 metre for vertical sections

External pipework

The pipework should be kept to a minimum and the route as vertical as possible.
Do not exceed 3 metres outside the dwelling.

The condensate pipe must be run using suitable corrosion resistant materials (eg. plastic).

Terminate as close to the ground or drain as possible (below the grating and above the water level) while still allowing for safe dispersal of the condensate.
Connection of a condensate drainage pipe to a drain may be subject to local building controls.

Pipework subjected to extreme cold or wind chill conditions should be in a 40mm diameter pipe.

Protect all external pipework with weather resistant insulation and, if necessary, box in, to reduce the risk of freezing.

Making it safe.

Condensate pipework must not leak, freeze or block up.
Condensate traps must be filled before firing the boiler to prevent the possibility of potential harmfull flue products evacuating via the condensate route.
Do not dispose condensate into a water recovery system where it is recaimed for reuse.

Condensate can be discharged into a rainwater hopper which is part of a sewer carrying both rain water and foul water.
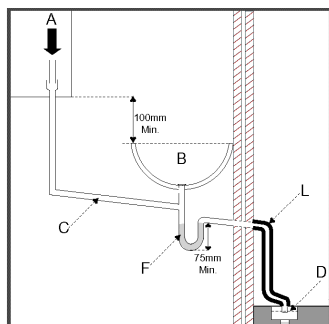
Final discharge options.

The condensate pipe can only terminate into any one of the five areas as shown in the diagrams on this page.

⚠️ **Draining of the condensation water to the external rain guttering is not permitted in view of the danger of freezing.**

⚠️ **Before putting the boiler into operation fill the syphon with 300 ml of water.**
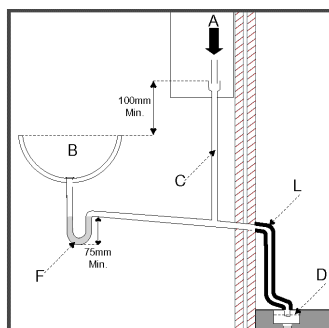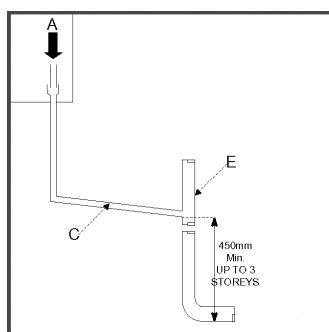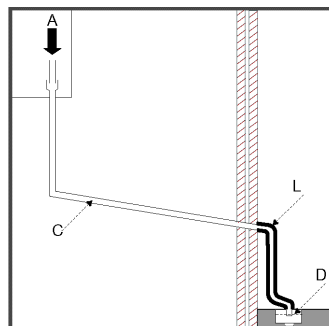
A -Condensate from boiler syphon/trap
B -Sink with internal overflow
C -25mm dia. Plastic condensate pipe
D -External drain or gully
E -Internal soil and vent stack.
F   -Servicable condensate trap (75mm min.)
G -300mm x 100mm dia. sealed plastic tube.
H -Ground level
J   -Drainage holes facing away from the building
K -Lime stone chippings
L   -Weather resistant insulation
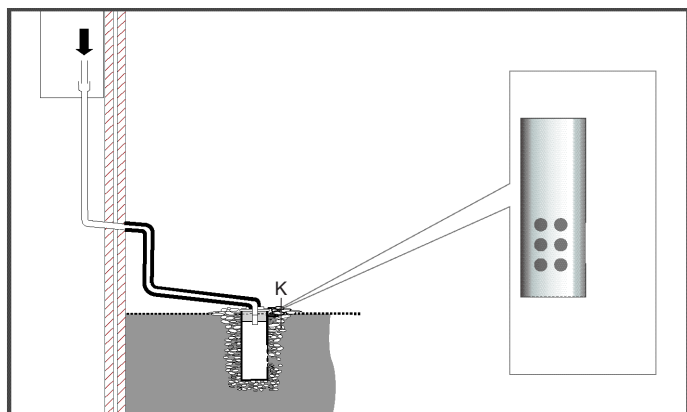
Drain requirements   *figure 6.7.a*

6.8 Flue gas exhaust system and air supply system

The flue gas exhaust system and air supply system consists of:
- Flue gas pipe;
- Air supply pipe;
- Roof or wall terminal.

The flue gas exhaust system and air supply system must comply with:

United Kingdom:
The flue gas outlet and air supply installation must comply with the current regulation requirements:

IGE/UP/10;	Installation of flued gas appliances in industrial and commercial premises
BS EN 1856-1;	Chimneys - Requirements for metal chimneys - Part 1: System chimney products
BS EN 1856-2;	Chimneys - Requirements for metal chimneys - Part 2: Metal liners and connecting flue pipes
BS EN 15287-1;	Chimneys - Design, installation and commissioning of chimneys - Part 1: Chimneys for non-room sealed appliances
BS EN 15287-2;	Chimneys - Design, installation and commissioning of chimneys - Part 1: Chimneys for room sealed appliances
BS EN 13384-2;	Chimney - Thermal and fluid dynamic calculation methods - Part 2: Chimneys serving more than one heating appliance
Clean Air Act;	For multiple boiler application where total heat input exceeds 366.4 kW [or 150 kW as advised within the CAAM, refer to local authority]

Furthermore:
- **Boiler Class indicated on the boiler's type plate (Flue category)**
- Locally applicable rules.
- The supplier's installation instructions

When in doubt or if you have any questions, always contact ATAG Commercial UK.

The boiler can be fitted with a parallel connected flue gas outlet and air supply system or a concentric flue gas outlet and air supply system.

The appliance connection diameter is 80/125 mm, to which the flue gas outlet and air supply system can be fitted, with or without elbow pieces. The next page descibes the conversion from concentric to parallal.
The Q51SR and Q60SR boiler has a connection of 2x 80mm from factory. The boiler is supplied with a flue adapter 80/125 mm to convert the boiler from parallel to a concentric connection.

The maximum permissible pipe length is set out in Table 6.8.1.a. (see page 35)

Boiler conversion from concentric to parallel
It is also possible to use a parallel pipe connection of 2x 80mm. In this case a conversion kit 'concentric to parallel' should be ordered. Art.nr. S4440520.

All flue gas parts, which are outside the fire resistant cover, need to be in stainless steel.

P
SS
Air filter

Open boiler

BoilerClass B   Free exhaust area

SS
P

P
SS
P
P/A
P
P/A
P/A

Boiler Class C
Permitted only when the air intake and the flue gas outlet are in the same pressure area.

Room sealed system

Open flued en room sealed system
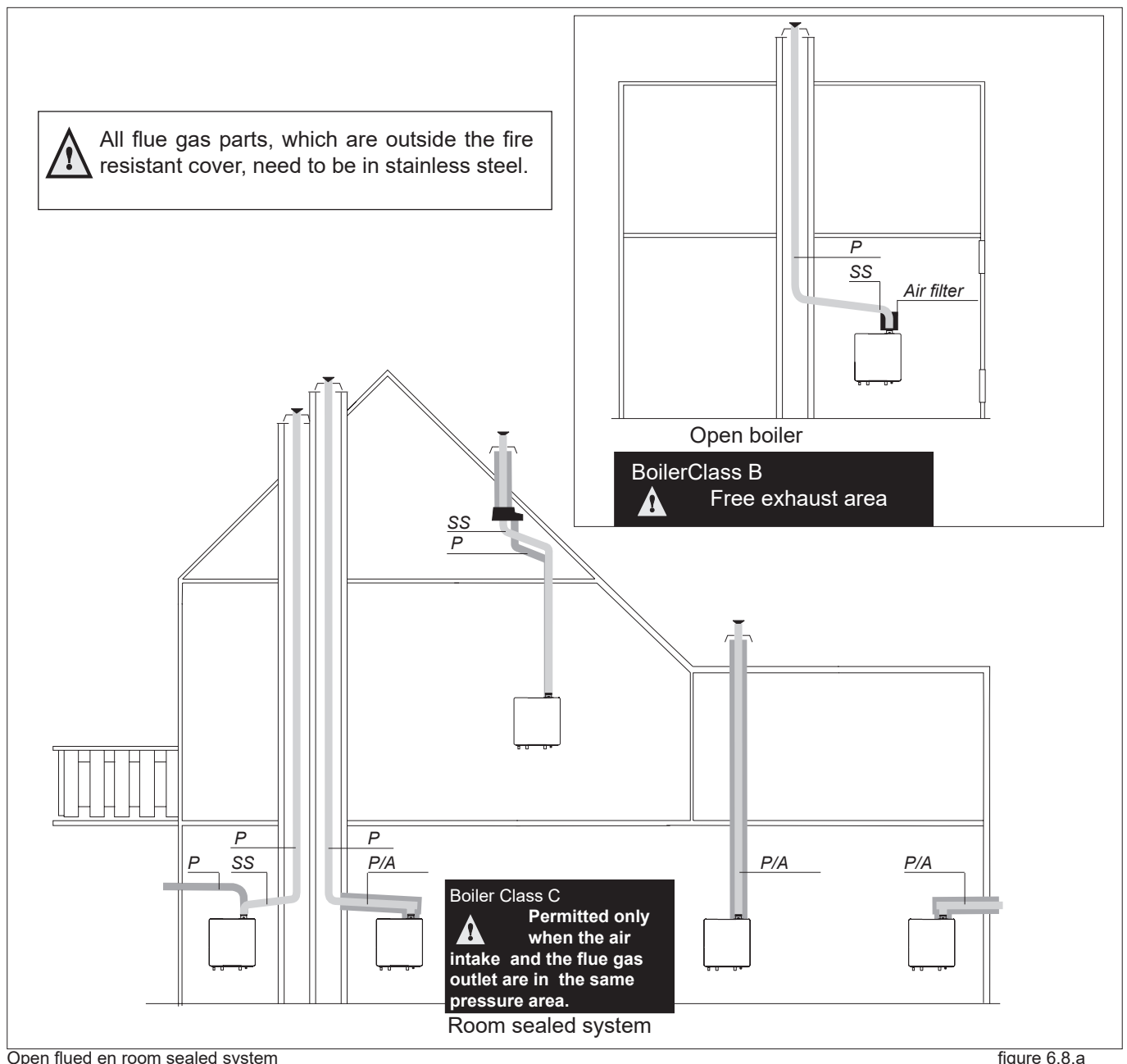
figure 6.8.a

A.   1. Push the 2 clips slightly outwards.
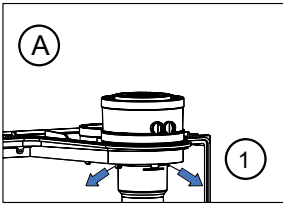
B.   2. Pull the concentric adaptor out of the boiler.
      3. Press the cover in the connection at the back from inside out.
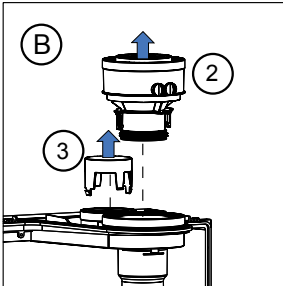
C.   4. Pull the rubber seal around the bottom of the flue connector.
      5. Push the flue connector in the boiler, in the boiler flue pipe until 'CLICK'.
      6. Push the ø125mm cover over the flue connector in the ø125mm opening until 'CLICK'.
      7. Push the rubber plug in open position in the O_2 measuring opening and close the stop.
      8. Push the gasket around the top of the flue connector.
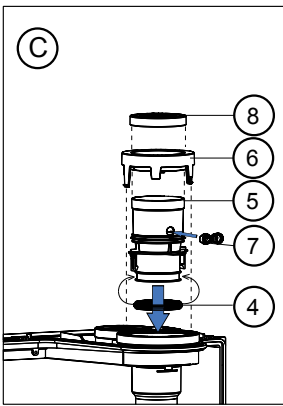
D.   Connect the parallel flue gas and air intake system (2x ø80mm).
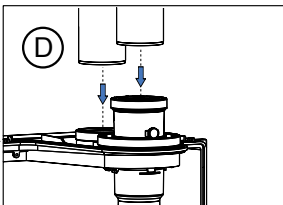
boiler conversion from concentric to parallel
figure 6.8.b

Q51SR and Q60SR Boiler conversion from parallel to concentric
It is possible to convert the Q51SR and Q60SR boiler from the standard 2x 80 mm parallel to a concentric flue connection ø80/125mm. In this case use the concentric flue adapter ø80/125 mm supplied with the boiler.

Conversion of the boiler should be done following the description above in reverse order.

The ATAG flue gas system is meant, and designed, solely for the use on ATAG central heating boilers adjusted to Nat gas or LPG. The maximum flue gas temperatures are below 70°C (full load 80/60°C)
The proper operation may be adversely influenced by changes of or adjustments to the correct set up.
Possible warranty claims will not be honoured if incorrect changes result in non compliance with the installation manual or local rules and regulations.

The flue gas systems described in this document are solely suited for ATAG central heating boilers of the ATAG boiler range. For this purpose the CE Certificate has been supplemented under the Gastec nr: 0063BR3405, 0063BQ3021, 0063AS3538 and 0063AU3110. 0063BQ3021, 0063BT3195 en 0063CM3648
The flue gas system should be built up using only ATAG program products. Combinations with other brands or systems, without written permission from ATAG Commercial UK, are not permitted.

Horizontal flue system should always be installed with a 3 degree drop sloping towards the boiler, in order to avoid condensate lying in the flue system.
The minimum gradient is 50mm/Mtr. With the condensate running back to the boiler the risk of ice forming at the terminal is reduced.

The terminal should be located where dispersal of combustion products is not impeded and with due regard for the damage or discolouration that might occur to building products in the vicinity (see fig 6.8.c).
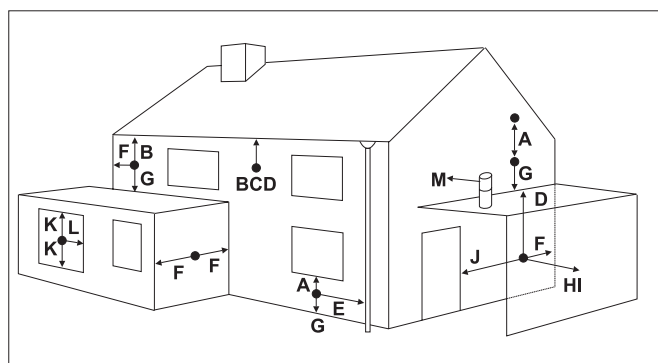
figure 6.8.c

	terminal position for fan assisted boiler		minimum distance
A	directly below an open window or other opening (e.g. air brick)	mm	300
B	below gutters, soil pipes or drain pipes	mm	75
C	below eaves	mm	200
D	below balconies or car port roof	mm	200
E	from vertical drain pipes and soil pipes	mm	75
F	from internal or external corners	mm	300
G	above ground or below balcony level	mm	300
H	from a surface facing a terminal	mm	600
I	from a terminal facing a terminal	mm	1200
J	from an opening in the car port (e.g. door window) into dwelling	mm	1200
K	vertically from a terminal on the same wall	mm	1500
L	horizontally from a terminal on the same wall	mm	300
M	horizontally from a vertical terminal to a wall	mm	300

Dimensions   table 6.8.a

In certain weather conditions condensation may also accumulate on the outside of the air inlet pipe. Such conditions must be considered and where necessary insulation of the inlet pipe may be required.

In cold and/or humid weather water vapour may condense on leaving the flue terminal. The effect of such 'plumeing' must be considered.

The terminal must not be located in a place where it is likely to cause a nuisance.
For protection of combustibles, refer to IS 813 section 9.10.1. where the terminal is less than 2m (6.6ft) above a pavement or platform to which people have access (including) any balcony or flat roof the terminal must be protected by a guard of durable material. A suitable guard is available from the country distributor.

⚠ **Where a terminal is fitted below a window which is hinged at the top, and where the hinge axis is horizontal, and the window opens outwards, the terminal shall be 1m below the bottom of the window opening.**

⚠ **If the boiler is to be located under stairs, a smoke alarm meeting the requirements of I.S. 409 or equivalent must be fitted.**

⚠ **The flue must be terminated in a place not likely to cause a nuisance.**
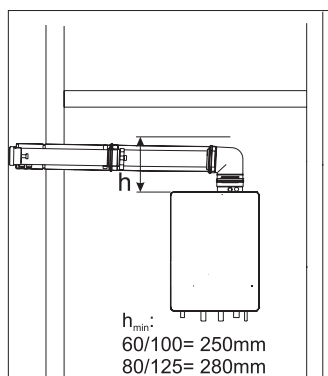
For horizontal sections, the outlet system should always be fitted on an incline (50 mm/m) sloping down towards the appliance so that no condensation water is able to accumulate in the outlet system. The chances of icicles forming on the roof outlet is minimised by causing the condensation water to run back towards the appliance. In the case of horizontal outlets the inlet system should be fitted on an incline sloping down towards the outside to prevent rainwater from coming in.

The appliance produces a white wisp of condensate (plumeing). This wisp of condensation is harmless, but can be unattractive, particularly in the case of outlets in outside walls. For wall terminals a plume management kit is available as an option.

Cutting the pipe goes as follows:
-   Cut just as much from the air intake part as from the flue gas part using a hand saw;
-   Take off the burrs from the cutting edge to prevent cutting the seals;
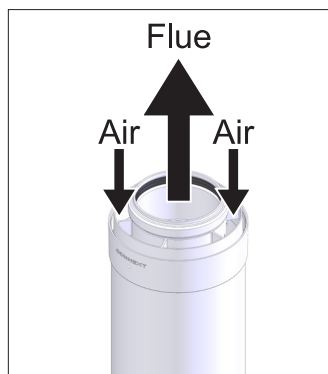
When mounting the flue gas system, pay attention to the flow direction (See figue 6.8.e). It is not permitted to mount a system upside down and will lead to complaints.

Use a soap solvent or special grease to simplify the fitting.

h$_{min}$:
60/100= 250mm
80/125= 280mm

Installation height   Figure 6.8.d

Flue

Air   Air

Flow direction   Figure 6.8.e

6.8.1   Dimensioning of the flue gas and air intake duct

The flue diameter is determined by the total length of the run, including for the connection pipe, elbows fittings and terminal covers etc and the type and number of boilers installed into the system.

An undersized flue pipe can lead to disorders. Look at table 6.8.1.a for the choice of the system and the correct diameter. The table below shows the maximum flue lengths with the different boiler outputs. A longer flue gas length can be achieved by increasing the diameter to ø 100mm.

Explanation table 6.8.1.a:
Two pipe flue gas system: maximum noted length = distance between boiler and roof terminal A
Concentric flue gas system: maximum noted length = distance between boiler and roof terminal B
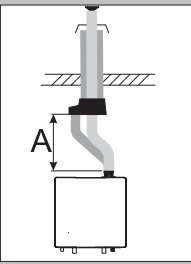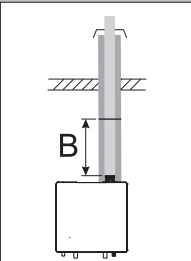
When using bends the noted value behind every bend should be deducted from the maximum straight length.

Example:
A 25kW with a concentric flue gas system ø80/125mm has according to the table a maximum flue straight length of 31m In the system that is going to be put in there are 2 x 45° bends, so the maximum flue gas length is
31 – (2 x 1.9) = 27.2 meters.

Two pipe flue system + chimney lining					
			ø80mm	A in m	ø100mm	A in m
16-25 kW			Maximum straight length 80	31	Maximum straight length 100	40
			87° bend resistance length	**-1,4**	87° bend resistance length	-2,1
			45° bend resistance length	**-0,9**	45° bend resistance length	-2
26-38 kW			Maximum straight length 80	18	Maximum straight length 100	39
			87° bend resistance length	-1,4	87° bend resistance length	-2,1
			45° bend resistance length	-0,9	45° bend resistance length	-2
39-60 kW			Maximum straight length 80	6	Maximum straight length 100	18
			87° bend resistance length	-1,4	87° bend resistance length	-2,1
			45° bend resistance length	-0,9	45° bend resistance length	-2

Concentric flue system					
			ø80/125mm	B in m	ø100/150mm	B in m
16-25 kW			Maximum straight length 80/125	31	Maximum straight length 100/150	40
			87° bend resistance length	-3	87° bend resistance length	-1,7
			45° bend resistance length	-1,9	45° bend resistance length	-1,3
26-38 kW			Maximum straight length 80/125	13	Maximum straight length 100/150	34
			87° bend resistance length	-3	87° bend resistance length	-1,7
			45° bend resistance length	-1,9	45° bend resistance length	-1,3
39-60 kW			Maximum straight length 80/125	6	Maximum straight length 100/150	10
			87° bend resistance length	-3	87° bend resistance length	-1,7
			45° bend resistance length	-1,1	45° bend resistance length	-1,3

Dimensions flue gas system and air supply system   Table 6.8.1.a

Depending of the comfort preferences different external hot water cylinders can be connected to the boiler. The choice of the cylinder depends on the coil output. The coil output must comply with the boiler output.

A cylinder which is used in combination with a Q51SR or Q60SR, should have a minimal capacity of 40 kW resp. 45kW (minimal ø28mm coil). The maximum permitted pressure drop is respectively 20 and 10 kPa at a flow of respectively 1417 and 1587 l/h.
See installation example E.1.b on page 83 for the hydraulic connection.

8 Electrical connection

The appliance complies with the actual Directives.

A 230V -50Hz mains electrical supply is required fused externally at 5A.

The installation must continue to comply with:
<u>United Kingdom:</u>
-   the national rules for electrical installations.

The appliance must be connected to an earthed socket. this must be visible and within reach.

The following general stipulations also apply:
-   No changes may be made to the wiring of the appliance;
-   All connections should be designed in accordance with the enclosed regulations.;
-   Should it be necessary to change it, the mains power supply cable may only be replaced with an ATAG mains power supply cable (item No. S4396700).

The ATAG room thermostat and controls must be connected to their allocated connections. All other types or makes of room thermostats or controls which are used must have a Volt free contact.

8.1 Room thermostats

Various thermostats or controls can be connected to the ATAG QR.
The following thermostats or controls can be connected at pos. 19 and 20:

	- Honeywell Round Modulation	Simple digitally communicating room thermostat.
	- ATAG WiZe	Extensive digitally communicating clock thermostat with push button control.
	- ATAG BrainZ	Extensive digitally communicating clock thermostat with push / turn menu control.
	- Or any other brand according to OpenTherm protocol.	

All other types or makes of room thermostats or controls which are used must have a Volt free contact and must be connected to pos. 19 and 20.

One of the above mentioned room thermostats or controls can be connected to pos. 21 and 22 as 2nd option for, for example, an affiliated mixed group.

The Siemens QAA55 controller can be connected at positions 14 and 15.

If desired, the different controllers (OpenTherm- and Siemens controller) can be applied to different groups. See the setting in the overview below.

Depending on the desired (external) control, a basic setting must be made:

Parameter	Function	Adjustments	Default	Application
5710	Heating group 1	On / Off	On	Use of heating group 1
5715	Heating group 2	On / Off	Off	Use of heating group 2
5721	Heating group 3	On / Off	Off	Use of heating group 3
6351	Function OT 1 connection	External room controller 1 / 2 / 3 Or via H8 (for on / off)	External room controller 1	Assign OpenTherm controller 1 to a specific heating group
6352	Function OT 2 connection	External room controller 1 / 2 / 3 Or via H9 (for on / off)	External room controller 2	Assign OpenTherm controller 2 to a specific heating group
6355	Room controller VG1	Intern / Extern	External	Internal = Siemens controller Extern = OpenTherm
6356	Room controller VG2	Intern / Extern	External	Internal = Siemens controller External = OpenTherm
6357	Room controller VG3	Intern / Extern	Internal	Internal = Siemens contoller External = OpenTherm
6359	External control DHW	None / External controller 1 / External controller 2	None	None (internal controller) = Siemens controller External controller = Settings on OpenTherm controller

For weather-dependent control, the outdoor sensor 1kOhm ATAG ARZ0055U (optional) must be connected to pos. 25 and 26.

For more detailed questions regarding the components which are not supplied by ATAG, the country distributor should be contacted.

Connection terminal

figure 8.a

Power supply
Fuse 10A
230V~50Hz

PE

DHW sensor Combi
(Accessory for Solo)

10KOhm

Outside sensor
(Accessory)

1KOhm

** Bridge expires when connecting
a security device

Three way valve VC6012
(Combi only)
Accessory for Solo

DHW
Out
PT1000
ON/OFF
ON/OFF
Block.
contact
n.a.
QAA
DHW QX3
230 V~
QX2
230 V~
DHW/Solar
QX1
230 V~
2...DH
230 V~
Acc.

8X.35.20.00

X0
X11
X2
X13
X4
X1

X20
X21
X24
X50
X7
X22
X30
X40
X41
X42
X23
X6
X4
X5

747340zen/0118

Control unit

PWM
PUMP

FAN

IGNITION

GAS VALVE

Adapter cable
(OSS3/4 only)

IONISATION

Water pressure
sensor

10KOhm
T1
Flow sensor

10KOhm
T2
Return sensor

10kOhm
T1a - in OSS4
2. Flow sensor

electrical diagram   figure 8.b

After switching on and with sufficient heating pressure (> 1.0 bar), the automatic hea-ting-side de-aeration program is executed, e.g. after filling the installation for the first time. The system is then switched to safe mode (circle symbol with dash). The display shows "De-aeration program on". The pump (s) are switched off / on a number of times. The 3-way valve, if present, is switched to the hot water position and the pump (s) are switched off / on again a number of times. At the end of the de-aeration pro-gram, which lasts approx. 16 minutes, the boiler switches back to normal operation

3 sec. 🖐

The venting program can also be started manually by pressing button E for more than 3 seconds. This function runs for approximately 16 minutes.

On a call for Central Heating (DHW program is switched OFF as factory setting), a water temperature will be calculated. This calculated water temperature is called the T-set value and with this the boiler output will be controlled. On a call for central heating the boiler ignites first at low input. The input is then changed slowly to match the load required. The boiler operates in this way to avoid excessive water noises and temperature overshoot.

On a call for hot water supply the T-set value of central heating return water temperature is monitored. Depending on the amount of sanitary water which is withdrawn from the DHW cylinder, the central heating return water temperature, from which the input is adjusted, will vary.

9.1 Explanation of the function keys

Legend:
A On/Off switch
B Back button (ESC)
C Room temperature control button
D Confirmation button (OK)
E Function button for manual operation
F Chimney sweep function button
G Info button
H Reset button
I Operation mode button for heating circuit(s)
L Operating mode button for DHW

Operating mode button for DHW (M)
For switching on the DHW preparation (Bar under the water tap in the display)
If the boiler control is configured via OpenTherm, no bars are visible.
DHW timer program via external controller is leading

Operation mode button for heating circuit(s) (I)
(Only works in combination with QAA55, NOT with OT/On-Off)
For setting 4 different operating modes for heating:

Automatic clock: Automatic operation according to timer program
                           Bar in the display visible under "AUTO" by OpenTherm

Sun 24 hr: Heating at comfort target value

Moon 24 hr: Heating at reduced value

Protection mode: Heating switched off, frost protection active

Information button (G)
Retrieval of the following information, without influence on the control
processes: Temperatures, operating condition of the heating facility/DHW, error reports

Room temperature control button (C)
With this rotating button, settings can be selected and changed during programming
and changing the room comfort temperature

Confirmation button OK (D)
Back button ESC (B)
These two buttons are needed in combination with the large rotating button (- +) for the
programming and configuration of the control unit. Settings, which cannot be changed
through the control elements, are provided by means of programming. By pushing the
ESC button you always go one step backward, whereby modified values are not taken
over. To reach the next operating level, or to store the changed values, you must
push the OK button.

Manual operation function button (E)
By pushing this button, the control unit is set to manual mode, whereby all pumps are
running, the mixer is no longer controlled and the burner is set to 60°C (Indicated by the
spanner symbol). Hold down for 3 sec. to start venting program.

Chimney sweep function button (F)
MAY ONLY TO BE OPERATED BY A QUALIFIED INSTALLER!
Push this button shortly, to put the boiler in the operating mode for measuring emissions;
renewed pushing of the button deactivates this function, or it is automatically
deactivated after 15 minutes (indicated by the spanner symbol).

Reset button (H)
By pressing this button shortly, the locked condition of the burner is deactivated.

On/Off switch (A)
Position 0: The entire facility and all connected electrical components are without
electrical power. A protection against frost is not ensured.
Position I: The entire facility and all connected electrical components are ready for
operation.

Button	Action	Procedure	Display / Function	
(rotating button) + —	Setting up the required room temperature	**HC2 jointly with HC1** Turn the rotating button left or right Turn the rotating button again for storing with OK button or wait for 5 sec. or push ☐ESC	comfort target value with blinking temperature display blinking temperature display in steps of 0.5° centigrade, from 10.0 to 30°C **Comfort value active** **Comfort value not active** - Basic display appears after 3 sec.	Only works in combination with QAA55, NOT with OT *Works with on / off controller via H8 / H9*
(rotating button) + —	Setting the required room temperature for HC1 or HC2	or **2nd HC independent of HC1** Turn rotating button left/right Then push OK Turn rotating button left/right Save with OK button or wait for 5 sec. or push ☐ESC	Select heating circuit Heating circuit active blinking temperature display in steps of 0.5° centigrade, from 10.0 to 30°C **Comfort target value active** **Comfort target value not active** - Basic display appears after 3 sec.	
(tap symbol)	Switching warm water operations ON or OFF	Push button	**Warm water operation ON / OFF** (segmented bar under symbol for warm water visible/invisible) - ON: Warm water preparation according to switching program - OFF: No warm water preparation - Safety function active *When using OpenTherm, "operating mode button is locked" is displayed Safety functions remain active!*	DHW timer program via external controller is leading
Auto ● ☀ ☾ ⏻	Change operating mode	Factory setting	**Automatic operating mode ON, with:** - heating operation according to timer program - Temperature target values according to heating program - Safety function active - Summer/Winter - automatic switching active - ECO functions active (segmented bar under corresponding symbol visible)	Only works in combination with QAA55, NOT with OT *Works with on / off controller via H8 / H9*
		1 x short push of button and then	**Continuous COMFORT heating ON, with:** - Heating operation without timer program, at comfort target value - Safety function active	
		once more, short push of button	**Continuous REDUCED heating ON, with:** - Heating operation without timer program, at reduced target value - Safety function active - Summer/Winter - automatic switching active - ECO functions active	
		once more, short push of button	**Automatic safety mode ON, with:** - Heating operations switched off - Temperature according to frost protection value - Safety function active *When using OpenTherm, "operating mode button is locked" is displayed Safety functions remain active!*	
	Control stop function	1 x push button (> 3 sec) push button once more (> 3 sec)	**304: Control stop function Set target value** Basic display appears after 3 sec.	

Button	Action	Procedure	Display / Function	
(i symbol)	Display of various information	1 x push button push button again push button again	INFO section is displayed - Boiler status - Room temperature - Room temperature minimum - Warm water status - Room temperature maximum - Status heating circuit 1 - Outdoor temperature - Status heating circuit 2 - Minimum outdoor temperature - Maximum outdoor temperature	
		Push button	- Time / date - Water temperature 1 - Error message - Boiler temperature - Maintenance report - Flow temperature (Display of the information lines depends on the configuration) Back to basic display; INFO segment is suppressed	
(hand symbol)	Operating mode according to target values that are set manually Change of the factory setting for boiler temperature	short push of button short push of button ☐i short push of button ☐OK Rotating button turn -/+ short push of button ☐OK short push of button ☐ESC short push of button ☐	**Manual operating mode ON** (spanner symbol is visible) - Heating operations at preset boiler temperature (factory setting = 60°C) **301: Manual operation mode Set target value for manual operation?** Blinking temperature display Set required target value **Boiler status** Manual operating mode OFF (spanner symbol disappears)	
	De-aeration function	1 x push button (> 3 sec) push button once more (> 3 sec)	312: De-aeration function ON De-aeration function OFF	
(chimney sweep symbol)	Activation of chimney sweep function	Push button (> 3 sec) push button once more (> 3 sec)	Chimney sweep function ON Chimney sweep function OFF	
☀ / ☾	Short-term reduction of room temperature at QAA75 / 78	Push button push button again	Heating at reduced target value Heating at comfort target value	Only works in combination with QAA55, NOT with OT/On-Off
RESET	Reset button	Push button (< 3 sec.) push button again > 3 sec.	Facility is manually locked, unreleased equipment is unlocked, alarm bell disappears	

☐OK = Confirmation   ☐ESC = Abort or back to basic display

MAY ONLY BE OPERATED BY A QUALIFIED INSTALLER!

9.3 Parameters end users

Basic display "Boiler temperature"
- Push OK button once
- Use +- rotating button for selecting for instance "Drinking water menu"
- Push OK button once
- Use +- rotating button, for instance in the drinking water menu, for selecting "Parameter no. 1612 - Reduced target value"
- Push OK button once
- Use +- rotating button to change the currently set value
- Push OK button once -> the value is stored
- Push 2 x ESC to return to the basic display "Boiler temperature . ."

Time programs are not active when using an OpenTherm thermostat, however, they are active when switching on and off via H8 / H9

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting	
Time of day and date	1	Hours / Minutes	hh:mm	00:00	23.59	--.--	
	2	Day / Month	dd:MM	01.01	31.12.	--.--	
	3	Year	yyyy	2004	2099	--.--	
Operator section	20	Language	-	English, German, French, Italian, Danish, Dutch, Spanish, Czech, Slovenian, Turkish		German	
Time program HC 1	500	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	
	501	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	502	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	503	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	504	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	505	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	506	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	516	Default values	-	Yes	No	No	
Time program HC 2 (When activated)	520	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	Only works in combination with QAA55, NOT with OT Works with on / off controller via H8 / H9
	521	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	522	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	523	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	524	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	525	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	526	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	536	Default values	-	Yes	No	No	
Time program 3/ HC3	540	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	
	541	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	542	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	543	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	544	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	545	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	546	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	556	Default values	-	Yes	No	No	
Time program 4/ DHW	560	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	Only if parameter 6359 is active
	561	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	562	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	563	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	564	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	565	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	566	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	576	Default values	-	Yes	No	No	

Parameters end users

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting	
Time program 5	600	Preselection	-	Mo-Su, Mo-Fr, Sa-Su	Mo-Su, Mo-Fr, Sa-Su	Mo-Su	
	601	Mo-Su: 1. Phase On	uu:mm	00:00	24:00	06:00	
	602	Mo-Su: 1. Phase Off	uu:mm	00:00	24:00	22:00	
	603	Mo-Su: 2. Phase On	uu:mm	00:00	24:00	--.--	
	604	Mo-Su: 2. Phase Off	uu:mm	00:00	24:00	--.--	
	605	Mo-Su: 3. Phase On	uu:mm	00:00	24:00	--.--	
	606	Mo-Su: 3. Phase Off	uu:mm	00:00	24:00	--.--	
	616	Default values	-	Yes	No	No	
Holidays HC1	641	Preselection	-	Period 1, 2, 3, 4, 5, 6, 7, 8		Period 1	
	642	Period Start Day / Month	tt.MM	01.01	31.12	--.--	
	643	Periode End Day / Month	tt.MM	01.01	31.12	--.--	
	648	Operating level	-	Frost protection, Reduced	Frost protection	Frost protection	Only works in combination with QAA55, NOT with OT
Holidays HC2	651	Preselection	-	Period 1, 2, 3, 4, 5, 6, 7, 8		Period 1	
(When activated)	652	Period Start Day / Month	tt.MM	01.01	31.12	--.--	Works with on / off controller via H8 / H9
	653	Periode End Day / Month	tt.MM	01.01	31.12	--.--	
	658	Operating level	-	Frost protection, Reduced	Frost protection	Frost protection	
HC1	710	Comfort setpoint	°C	Value from Line no. 712	35	20.0	
	712	Reduced setpoint	°C	4	Value from Line no. 710	16.0	
	714	Frost protection setpoint	°C	4	Value from Line no. 712	10.0	
	720	Heating curve slope	-	0.10	4.00	1.50	
	730	Summer/winter heating limit	°C	---/8	30	20	
HC 2	1010	Comfort setpoint	°C	Value from Line no. 1012	35	20.0	
	1012	Reduced setpoint	°C	4	Value from Line no. 1010	16.0	
	1014	Frost protection setpoint	°C	4	Value from Line no. 1012	10.0	
(When activated)	1020	Heating curve slope	-	0.10	4.00	0.8	
	1030	Summer/winter heating limit	°C	---/8	30	0	
DHW	1600	Operating mode	-	Off, On, Eco		Off	
	1610	Nominal setpoint	°C	Value from Line no. 1612	80	55	
	1612	Reduced setpoint	°C	8	Value from Line no. 1610	40	
Swimming pool	2055	Pool setpoint solar heating	°C	8	80	26	
	2056	Pool sepoint boiler heating	°C	8	80	22	
Boiler	2214	Setpoint manual control	°C	10	90	50	
Error	6700	Error message	-	-	-	Indication only	
	6705	SW Diagnose Code	-	-	-	Indication only	
	6706	Burner ctrl phase lockout pos	-	-	-	Indication only	

9.4   Parameters technician

Basic display "Boiler temperature"
- Push OK button once
- Push Info button for 4 sec.
- Use the +- rotating button for selecting commissioning or technician level
- Push OK button once
- Use +- rotating button for selecting for instance "Drinking water menu"
- Push OK button once
- Use the +- rotating button, for instance in the drinking water menu, for selecting "Parameter no. 1612 - Reduced target value"
- Push OK button once
- Use +- rotating button to change the currently set value
- Push OK button once -> the value is stored
- Push 2 x ESC to return to the basic display "Boiler temperature"

Overview of commissioning parameters
The parameter lines with a grey background only become visible at the commissioning level.
The complete parameter list becomes visible at the technician level.

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Time of day and date	1	Hours / Minutes	hh:mm	00:00	23.59	--.--
	2	Day / Month	dd:mm	01.01	31.12.	--.--
	3	Year	yyyy	2004	2099	--.--
	5	Start of summertime Day / Month	dd:mm	01.01	31.12.	25.03.
	6	End of summertime Day / Month	dd:mm	01.01	31.12.	25.10.
Operator section	20	Language	-	English, German, French, Italian, Danish, Dutch, Spanish, Czech, Slovenian, Turkish		German
	22	Info	-	Temporarily, Permanently		Temporarily
	26	Operation lock	-	Off, On		Off
	27	Programming lock	-	Off, On		Off
	28	Direct adjustment	-	Automatic storage, Storage with confirmation		Storage with confirmation
	44	Operation HC2	-	Jointly with HC1, Independently		Jointly with HC1
	46	Operation HC3/P	-	Jointly with HC1, Independently		Jointly with HC1
	70	Software Version	-	0	99.0	Indication only
Time program HC 1	500	Preselection	-	Mo-Su, Mo-Fr, Sa-Su		Mo-Su
	501	Mo-Su: 1. Phase On	hh:mm	00:00	00:00	06:00
	502	Mo-Su: 1. Phase Off	hh:mm	00:00	00:00	22:00
	503	Mo-Su: 2. Phase On	hh:mm	00:00	00:00	--.--
	504	Mo-Su: 2. Phase Off	hh:mm	00:00	00:00	--.--
	505	Mo-Su: 3. Phase On	hh:mm	00:00	00:00	--.--
	506	Mo-Su: 3. Phase Off	hh:mm	00:00	00:00	--.--
	516	Default values	-	Yes, No		No
Time program HC 2 **(when activated)**	520	Preselection	-	Mo-Su, Mo-Fr, Sa-Su		Mo-Su
	521	Mo-Su: 1. Phase On	hh:mm	00:00	00:00	06:00
	522	Mo-Su: 1. Phase Off	hh:mm	00:00	00:00	22:00
	523	Mo-Su: 2. Phase On	hh:mm	00:00	00:00	--.--
	524	Mo-Su: 2. Phase Off	hh:mm	00:00	00:00	--.--
	525	Mo-Su: 3. Phase On	hh:mm	00:00	00:00	--.--
	526	Mo-Su: 3. Phase Off	hh:mm	00:00	00:00	--.--
	536	Default values	-	Yes, No		No
Time program HC3/P	540	Preselection	-	Mo-Su, Mo-Fr, Sa-Su		Mo-Su
	541	Mo-Su: 1. Phase On	hh:mm	00:00	00:00	06:00
	542	Mo-Su: 1. Phase Off	hh:mm	00:00	00:00	22:00
	543	Mo-Su: 2. Phase On	hh:mm	00:00	00:00	--.--
	544	Mo-Su: 2. Phase Off	hh:mm	00:00	00:00	--.--
	545	Mo-Su: 3. Phase On	hh:mm	00:00	00:00	--.--
	546	Mo-Su: 3. Phase Off	hh:mm	00:00	00:00	--.--
	556	Default values	-	Yes, No		No
Time program 4 DHW	560	Preselection	-	Mo-Su, Mo-Fr, Sa-Su		Mo-Su
	561	Mo-Su: 1. Phase On	hh:mm	00:00	00:00	06:00
	562	Mo-Su: 1. Phase Off	hh:mm	00:00	00:00	22:00
	563	Mo-Su: 2. Phase On	hh:mm	00:00	00:00	--.--
	564	Mo-Su: 2. Phase Off	hh:mm	00:00	00:00	--.--
	565	Mo-Su: 3. Phase On	hh:mm	00:00	00:00	--.--
	566	Mo-Su: 3. Phase Off	hh:mm	00:00	00:00	--.--
	576	Default values	-	Yes, No		No

Parameters technician

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Time program 5	600	Preselection	-	Mo-Su, Mo-Fr, Sa-Su		Mo-Su
	601	Mo-Su: 1. Phase On	hh:mm	00:00	00:00	06:00
	602	Mo-Su: 1. Phase Off	hh:mm	00:00	00:00	22:00
	603	Mo-Su: 2. Phase On	hh:mm	00:00	00:00	--.--
	604	Mo-Su: 2. Phase Off	hh:mm	00:00	00:00	--.--
	605	Mo-Su: 3. Phase On	hh:mm	00:00	00:00	--.--
	606	Mo-Su: 3. Phase Off	hh:mm	00:00	00:00	--.--
	616	Default values	-	Yes, No		No
Holidays HC1	641	Preselection	-	Period 1, 2, 3, 4, 5, 6, 7, 8		Period 1
	642	Period Start Day / Month	dd:mm	01.01	31.12	--.--
	643	Periode End Day / Month	dd:mm	01.01	31.12	--.--
	648	Operating level	-	Frost protection, reduced		Frost protection
Holidays HC2	651	Preselection	-	Period 1, 2, 3, 4, 5, 6, 7, 8		Period 1
(When activated)	652	Period Start Day / Month	dd:mm	01.01	31.12	--.--
	653	Periode End Day / Month	dd:mm	01.01	31.12	--.--
	658	Operating level	-	Frost protection, reduced		Frost protection
HC 1	700	Operating mode HC1	-	Protection, Automatic mode, Continuously comfort, Continuously reduced		Automatic mode
	710	Comfort setpoint	°C	Value from Line no. 712	35	20.0
	712	Reduced setpoint	°C	Value from Line no. 714	Value from Line no. 710	16.0
	714	Frost protection setpoint	°C	4	Value from Line no. 712	10.0
	720	Heating curve slope	-	0.10	4.00	1.50
	721	Heating curve parallel displacement	°C	-4.5	4.5	0.0
	726	Heating curve adaption	°C	Off, On		Off
	730	Summer/winter heating limit	°C	---/8	30	0
	732	24-hour heating limit	°C	---/-10	10	-3
	733	Ext'n 24-hour heating limit	-	No, Yes		Yes
	740	Flow temp setpoint min	°C	8	Value from Line no. 741	8
	741	Flow temp setpoint max	°C	Value from Line no. 740	80	80
	742	Flow temp setpoint room stat	°C	Value from Line no. 740	Value from Line no. 741	65
	746	Delay heat request	s	0	600	10
	750	Room influence	%	---/0	100	20
	760	Room temp limitation	°C	---/0.5	4	1
	770	Boost heating	°C	---/0	20	2
	780	Quick setback	-	Off, Down to Reduced setpoint, Down to Frost protection setpoint		Down to Reduced setpoint
	790	Optimum start control max	min	0	360	0
	791	Optimum Stop control max	min	0	360	0
	800	Reduced setp increase start	°C	---/30	10	-5
	801	Reduced setp increase end	°C	-30	Value from Line no. 800	-15
	809	Continuous pump operation HC1		Off, On		Off
	820	Overtemp prot pump circuit	-	Off, On		On
	830	Mixing valve boost	°C	0	50	5
	832	Actuator type	-	2-position, 3-position		3-position
	833	Switching differential 2-pos	°C	0	20	2
	834	Actuator running time	s	30	873	135
	835	P-Band (Xp) HC1	°C	1	100	24
	836	Integral action time (Tn) HC1	s	10	873	90
	850*	Floor curing function	-	Off, Functional heating, Curing heating, Manual		Off
	851*	Floor curing setp manually	°C	0		25
	855*	Floor curing setp current	°C	-		Indication only
	856*	Floor curing day current	-	0		0
	861	Excess heat draw	-	Off, Heating mode, Always		Off
	870	With buffer	-	No, Yes		Yes
	872	With prim contr/system pump	-	No, Yes		Yes
	890	Flow setp readj speed ctrl	-	No, Yes		No
	898	Operating level change over	-	Frost protection, Reduced, Comfort		Reduced
	900	Optg mode changeover	-	None, Protection, Reduced, Comfort, Automatic		Protection

* see page 52

Parameters technician

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
HC 2	1000	Operating mode HC2	-	Protection, Automatic mode, Reduced		Protection
(when activated)	1010	Comfort setpoint	°C	Value from Line no. 1012	35	20.0
	1012	Reduced setpoint	°C	Value from Line no. 1014	Value from Line no. 1010	16.0
	1014	Frost protection setpoint	°C	4	Value from Line no. 1012	10.0
	1020	Heating curve slope	-	0.10	4.00	0.8
	1021	Heating curve parallel dis-	°C	-4.5	4.5	0.0
	1026	Heating curve adaption	°C	Off, On		Off
	1030	Summer/winter heating limit	°C	---/8	30	20
	1032	24-hour heating limit	°C	---/-10	10	-3
	1033	Ext'n 24-hour heating limit	-	No, Yes		Yes
	1040	Flow temp setpoint min	°C	8	Value from Line no. 1041	8
	1041	Flow temp setpoint max	°C	Value from Line no. 1040	80	50
	1042	Flow temp setpoint room stat	°C	Value from Line no. 1040	Value from Line no. 1041	50
	1046	Room influence	s	0	600	10
	1050	Room temp limitation	%	---/0	100	20
	1060	Boost heating	°C	---/0.5	4	1
	1070	Summer/winter heating limit	°C	---/0	20	2
	1080	Quick setback	-	Off, Down to Reduced setpoint, Down to Frost protection setpoint		Down to Reduced setpoint
	1090	Optimum start control max	min	0	360	0
	1091	Optimum Stop control max	min	0	360	0
	1100	Reduced setp increase start	°C	---/30	10	-5
	1101	Reduced setp increase end	°C	-30	Value from Line no. 1100	-15
	1109	Continuous pump operation HC2		Off, On		Off
	1120	Overtemp prot pump circuit	-	Off, On		On
	1130	Mixing valve boost	°C	0	50	5
	1132	Actuator type	-	2-position, 3-position		3-position
	1133	Switching differential 2-pos	°C	0	20	2
	1134	Actuator running time	s	30	873	135
	1135	P-Band (Xp) HC1	°C	1	100	24
	1136	Integral action time (Tn) HC1	s	10	873	90
	1150*	Floor curing function	-	Off, Functional heating, Curing heating, Manual		Off
	1151*	Floor curing setp manually	°C	0	95	25
	1155*	Floor curing setp current	°C	-	-	Indication only
	1156*	Floor curing day current	-	0	32	0
	1161	Excess heat draw	-	Off, Heating mode, Always		Off
	1170	With buffer	-	No, Yes		Yes
	1172	With prim contr/system pump	-	No, Yes		Yes
	1190	Flow setp readj speed ctrl	-	No, Yes		No
	1198	Operating level change over	-	Frost protection, Reduced, Comfort		Reduced
	1200	Optg mode changeover	-	None, Protection, Reduced, Comfort, Automatic		Protection

* see page 52

Parameters technician

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
HC 3	1300	Operating mode HC2	-	Protection, Automatic mode, Reduced		Protection
(when activated)	1310	Comfort setpoint	°C	Value from Line 1312	35	20.0
	1312	Reduced setpoint	°C	Value from Line no. 1314	Value from Line no. 1310	16.0
	1014	Frost protection setpoint	°C	4	Value from Line no. 1312	10.0
	1320	Heating curve slope	-	0.10	4.00	0.8
	1321	Heating curve parallel dis-	°C	-4.5	4.5	0.0
	1326	Heating curve adaption	°C	Off, On		Off
	1330	Summer/winter heating limit	°C	---/8	30	20
	1332	24-hour heating limit	°C	---/-10	10	-3
	1333	Ext'n 24-hour heating limit	-	No, Yes		Yes
	1340	Flow temp setpoint min	°C	8	Value from Line no. 1341	8
	1341	Flow temp setpoint max	°C	Value from Line no. 1340	80	50
	1342	Flow temp setpoint room stat	°C	Value from Line no. 1340	Value from Line no. 1341	50
	1346	Room influence	s	0	600	10
	1350	Room temp limitation	%	---/0	100	20
	1360	Boost heating	°C	---/0.5	4	1
	1370	Summer/winter heating limit	°C	---/0	20	2
	1380	Quick setback	-	Off, Down to Reduced setpoint, Down to Frost protection setpoint		Down to Reduced setpoint
	1390	Optimum start control max	min	0	360	0
	1391	Optimum Stop control max	min	0	360	0
	1400	Reduced setp increase start	°C	---/30	10	-5
	1401	Reduced setp increase end	°C	-30	Value from Line no. 1400	-15
	1409	Continuous pump operation HC3		Off, On		Off
	1420	Overtemp prot pump circuit	-	Off, On		On
	1430	Mixing valve boost	°C	0	50	5
	1432	Actuator type	-	2-position, 3-position		3-position
	1433	Switching differential 2-pos	°C	0	20	2
	1434	Actuator running time	s	30	873	135
	1435	P-Band (Xp) HC1	°C	1	100	24
	1436	Integral action time (Tn) HC1	s	10	873	90
	1450*	Floor curing function	-	Off, Functional heating, Curing heating, Manual		Off
	1451*	Floor curing setp manually	°C	0	95	25
	1455*	Floor curing setp current	°C	-	-	Indication only
	1456*	Floor curing day current	-	0	32	0
	1461	Excess heat draw	-	Off, Heating mode, Always		Off
	1470	With buffer	-	No, Yes		Yes
	1472	With prim contr/system pump	-	No, Yes		Yes
	1490	Flow setp readj speed ctrl	-	No, Yes		No
	1498	Operating level change over	-	Frost protection, Reduced, Comfort		Reduced
	1500	Optg mode changeover	-	None, Protection, Reduced, Comfort, Automatic		Protection

Parameters technician

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Domestic hot water	1600	Operating mode	-	Off, On, Eco		Off
	1610	Nominal setpoint	°C	8	80	60
	1612	Reduced setpoint	°C	8	80	40
	1614	Nominal setpoint max	°C	8	80	65
	1620	Release	-	24h/Day, Time programs HCs, Time program 4/DHW		combi: 24h/Day solo: Time programs HCs
	1630	Charging priority	-	Absolute, Shifting, None, MC shifting PC absolute		Absolute
	1640	Legionella function	-	Off, Periodically, Fixed weekday		Fixed weekday
	1641	Legionella function periodically	-	1	7	7
	1642	Legionella funct Day	-	Mo,Tu,We,Th,Fr,Sa,Su		Montag
	1644	Legionella funct time	uu:mm	00:00	23:50	---
	1645	Legionella funct setpoint	°C	55	95	65
	1646	Legionella funct duration	min	10	360	30
	1647	Legionella funct circ pump	-	Off, On		On
	1660	Circulating pump release	-	Time program 3/HCP, DHW release, Time program 4/DHW, Time program 5		DHW release
	1661	Circulating pump cycling	-	Off, On		Off
	1663	Circulation setpoint	°C	8	80	45
	1680	Optg mode changeover	-	None, Off, On		None
Consumer circuit 1	1859	Flow temp setp cons request	°C	8	120	70
	1874	DHW charging priority	-	No, Yes		Yes
	1875	Excess heat draw	-	No, Yes		No
	1878	With buffer	-	No, Yes		Yes
	1880	With prim contr/system pump	-	No, Yes		Yes
Consumer circuit 2	1909	Flow temp setp cons request	°C	8	120	70
	1924	DHW charging priority	-	No, Yes		Yes
	1925	Excess heat draw	-	No, Yes		No
	1928	With buffer	-	No, Yes		Yes
	1930	With prim contr/system pump	-	No, Yes		Yes
Consumer circuit 3	1959	Flow temp setpoint	°C	8		45
	1974	DHW charging priority	-	No, Yes		Yes
	1975	Excess heat draw	-	No, Yes		No
	1978	With buffer	-	No, Yes		Yes
	1980	With prim contr/system pump	-	No, Yes		Yes
Swimming pool	2055	Pool setpoint solar heating	°C	8	80	26
	2056	Pool setpoint producer heating	°C	8	80	22
	2065	Pool charging priority solar	-	Priority 1, Priority 2, Priority 3		Priority 3
	2070	Pool temperature maximum	°C	8	95	30
	2080	Pool with solar	-	No, Yes		Yes
Primary control/ System pump	2110	Flow temp min limitation	°C	8	95	8
	2111	Flow temp max limitation	°C	8	95	80
	2121	Syst pump on heat gen lock	-	Off, On		Off
	2130	Mixing valve boost	°C	0	50	5
	2132	Actuator type	-	2-position, 3-position		3-position
	2133	Switching differential 2-pos	°C	0	20	2
	2134	Actuator running time	s	30	873	120
	2135	P-Band (Xp	°C	1	100	32
	2136	Integral action time (Tn) HC1	s	10	873	120
	2150	Primary control/System pump	-	Upstream of buffer, Downstream of buffer		Downstream of buffer

Parameters technician

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Boiler	2210	Setpoint min	°C	8	95	20
	2212	Setpoint max	°C	8	120	85
	2214	Setpoint manual control	°C	8	120	50
	2236	P-band Xp DHW	°C	1	200	35
	2237	Integral action time (Tn) dhw	s	4	873	75
	2243	Burner off time min	min	0	60	5
	2245	SD burner off time	°C	0	80	40
	2250	Pump overrun time	min	0	240	3
	2253	Pump overr time after DHW	min	0	20	1
	2270	Return setpoint min	°C	8	95	8
	2301	Boiler pump on heat gen lock	-	Off, On		Off
	2305	Impact heat generation lock	-	Heating mode only, Heating and DHW mode		Heating and DHW mode
	2316	Temp differential max	°C	0	80	25
	2317	Temp differential nominal	°C	0	80	20
	2320	Pump modulation	-	None, Demand, Boiler setpoint, Temp differential nominal, Burner output		Temp differential nominal
	2321	Starting speed	%	0	100	100
	2322	Pump speed min	%	0	100	Q25SR: 60 Q38SR: 60 Q51SR: 55 Q60SR: 55 Q25CR: 60 Q38CR: 60 Q51CR: 55
	2323	Pump speed max	%	0	100	Q25SR: 70 Q38SR: 100 Q51SR: 100 Q60SR: 100 Q25CR: 75 Q38CR: 100 Q51CR: 100
	2330	Output nominal	kW	0	2000	Q25SR: 25 Q38SR: 38 Q51SR: 51 Q60SR: 60 Q25CR: 25 Q38CR: 38 Q51CR: 51
	2331	Output basic stage	kW	0	2000	Q25SR: 5.0 Q38SR: 6.9 Q51SR: 10.0 Q60SR: 10.0 Q25CR: 6.9 Q38CR: 6.9 Q51CR: 10.0
	2334	Output at pump speed min	%	0	100	0
	2335	Output at pump speed max	%	0	100	100
	2441	Max. speed at maximum output in heating mode	rpm	0	1000	Q25SR: 5390 Q38SR: 5450 Q51SR: 4750 Q60SR: 5400 Q25CR: 3590 Q38CR: 5450 Q51CR: 4750
	2442	Fan speed full charging max	rpm	0	1000	See Line no. 2444
	2444	Fan speed DHW max	rpm	0	1000	Q25SR: 5390 Q38SR: 5450 Q51SR: 4750 Q60SR: 5400 Q25CR: 5020 Q38CR: 5450 Q51CR: 4750
	2445	Fan shutdown heating mode	-	Uit, Aan		Uit
	2446	Fan shutdown delay	s	0	200	3
	2450	Controller delay	-	Off, Heating mode only, DHW mode only, Heating and DHW mode		Heating mode only
	2452	Controller delay speed	rpm	0	10000	1500
	2453	Controller delay duration	s	0	255	30
	2454	Switching diff on HCs	°C	0	20	3
	2455	Switching diff off min HCs	°C	0	20	5
	2456	Switching diff off max HCs	°C	0	20	10
	2457	Settling time HCs	min	0	240	1
	2460	Switching diff on DHW	°C	0	20	1
	2461	Switching diff off min DHW	°C	0	20	6
	2462	Switching diff off max DHW	°C	0	20	8
	2463	Settling time DHW	min	0	240	1

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Boiler	2470	Delay heat req special op	s	0	600	0
	2628	Deaeration function release	-	0: None 1: Water pressure too low 2: Water pressure too high 3: Water pressure too low or too high 4: Power-On 5: Power-On or water pressure too low 6: Power-On or water pressure too high 7: Power-On or water pressure too low/too high		5: Power-On or water pressure too low
	2630	Auto deaeration procedure	-	Off, On		Off
	2655	ON time deaeration	s	0	240	20
	2656	OFF time deaeration	s	0	240	10
	2657	Number of repetitions	-	0	100	3
	2662	Deaeration time heat circuit	min	0	255	3
	2663	Deaeration time DHW	min	0	255	2
Cascade (when activated)	3510	Lead strategy	-	Late on early off, Late on late off, Early on late off		Late on early off,
	3511	Output band min	%	0	100	40
	3512	Output band max	%	0	100	90
	3530	Release integral source seq	°C*min	0	500	100
	3531	Reset integral source seq	°C*min	0	500	8
	3532	Restart lock	s	0	1800	300
	3533	Switch on delay	min	0	120	5
	3534	Forced time basic stage	s	0	1200	60
	3540	Auto source seq ch'over	h	10	990	500
	3541	Auto source seq exclusion	-	None, First, Last, First and Last		None
	3544	Leading source	-	1	16	Source 1
	3560	Return setpoint min	°C	8	95	8
Solar	3810	Temp diff on	°C	0	40	8
	3811	Temp diff off	°C	0	40	4
	3812	Min charging temperature DHW storage tank	°C	8	95	30
	3813	Temperature differential ON buffer	°C	0	40	- - -
	3814	Temperature differential OFF buffer	°C	0	40	- - -
	3815	Min charging temperature buffer	°C	8	95	30
	3816	Temperature differential swimming pool ON	°C	0	40	- - -
	3817	Temperature differential swimming pool OFF	°C	0	40	- - -
	3818	Min charging temperature swimming pool	°C	8	95	- - -
	3822	Charging priority storage	-	None, DHW storage tank, Buffer		DHW storage tank
	3825	Charging time relative priority	min	2	60	- - -
	3826	Wait time relative priority	min	1	40	- - -
	3827	Wait time parallel operation	min	0	40	- - -
	3828	Start delay secondary pump	s	0	600	60
	3830	Collector Start function	min	5	60	- - -
	3831	Min collector pump running time	s	5	120	30
	3840	Collector frost protection temp	°C	-20	5	---
	3850	Collector overtemperature protection	°C	30	350	80
	3860	Evaporation temperature of heat carrier	°C	60	350	110
	3865	Starting speed coll pump 1	%	0	100	100
	3867	Starting speed exch pump	%	0	100	100
	3868	Starting speed buffer pump	%	0	100	100
	3869	Starting speed swi pool pump	%	0	100	100
	3870	Pump speed min solar	%	0	100	40
	3871	Pump speed max solar	%	0	100	100
	3880	Type of antifreeze added		1: None (water), 2: Ethylenglycol, 3: Proplylenglykol, 4: Mixture Ethylen- and Propylenglycol		1: None (water)
	3881	Antifreeze concentration	%	1	100	30
	3884	Volumetric flow solar pump	l/h	10	1500	200
	3887	Pulse unit yield	l	0	100	10

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Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
DHW Storage tank	5010	Charging	-	Once/day, Several times/day		Several times/day
	5020	Flow setpoint boost	°C	0	30	16
	5021	Transfer boost	°C	0	30	8
	5022	Type of charging	-	Recharging, Full charging, Full charging legio, Full charg 1st time day, Full charg 1st time day legio		Full charging
	5024	Switching diff	°C	0	20	5
	5030	Charging time limitation	min	10	600	60
	5040	Discharging protection	-	Off, Always, Automatic		Automatic
	5050	Charging temp max	°C	8	95	70
	5055	Recooling temp	°C	8	95	70
	5056	Recooling heat gen/HCs	-	Off, On		Off
	5057	Recooling collector	-	Off, Summer, Always		Always
	5060	El imm heater optg mode	-	Substitute, Summer, Always		Substitute
	5061	El immersion heater release	-	24h/day, DHW release, Time program 4/DHW		DHW release
	5062	El immersion heater control	-	External thermostat, DHW sensor		DHW sensor
	5070	Automatic push	-	Off, On		On
	5085	Excess heat draw	-	Off, On		On
	5090	With buffer	-	No, Yes		No
	5092	With prim contr/system pump	-	No, Yes		No
	5093	With solar integration	-	No, Yes		Yes
	5101	Pump speed min	%	0	100	100
	5102	Pump speed max	%	0	100	100
	5130	Transfer strategy	-	Off, Always, DHW release		Always
	5131	Comparison temp transfer	-	DHW sensor B3, DHW sensor B31		DHW sensor B3
	5140	DHW charging circuit boost	°C	0	10	2
	5141	DHW charging circuit boost max	°C	2	20	2
	5142	Delay flow set point contr	s	0	60	30
	5146	Full charge with B36	-	No, Yes		Yes
	5148	Min start temp diff Q33	°C	-20	20	4
	5151	Charg' cir excess superv delay	s	0	255	30

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Configuration	5710	Heating circuit 1	-	Off, On		On
	5715	Heating circuit 2	-	Off, On		Off
	5721	Heating circuit 3	-	Off, On		Off
	5730	DHW sensor	-	DHW sensor B3, Thermostat, DHW outlet sensor B38		DHW sensor B3
	5731	DHW controlling element	-	No charging request, Charging pump, Diverting valve		Charging pump
	5734	Basic pos DHW div valve	-	Last request, Heating circuit, DHW		Last request
	5736	DHW separate circuit	-	Off, On		Off
	5737	Optg action DHW div valve	-	Position On DHW, Position On HC		Position On DHW
	5774	Ctrl boiler pump/DHW valve	-	All requests, Request HC1/DHW only		All requests
	5775	Boiler pump with DHW		Off, On		On
	5840	Solar controlling element	-	Charging pump, Diverting valve		Charging pump
	5841	External solar exchanger	-	Jointly, DHW storage tank, Buffer storage tank		Jointly
	5870	Combi storage tank	-	No, Yes		No
	5890	Relay output QX1	-	0: None 1:Circulating pump Q4 2:El imm heater DHW K6 3:Collector pump Q5 4:Cons circuit pump VK1 Q15 5:Boiler pump Q1 6:Bypass pump Q12 7:Alarm output K10 8:2nd pump speed HC1 Q21 9:2nd pump speed HC2 Q22 10:2nd pump speed HC3 Q23 11:Heat circuit pump HC3 Q20 12:Cons circuit pump VK2 Q18 13:System pump Q14 14:Heat gen shutoff valve Y4 15:Solid fuel boiler pump Q10 16:Time program 5 K13 17:Buffer return valve Y15 18:Solar pump ext exch K9 19:Solar ctrl elem buffer K8 20:Solar ctrl elem swi pool K18 22: Swimming pool pump Q19 25:Cascade pump Q25 26:St tank transfer pump Q11 27:DHW mixing pump Q35 28:DHW interm circ pump Q33 29:Heat request K27 30:Refrigeration request K28 33:Heat circuit pump HC1 Q2 34:Heat circuit pump HC2 Q6 35:DHW ctrl elem Q3 36:Instant heater ctrl elem Q34 38:Water filling K34 39:2nd boiler pump speed Q27 40:Status output K35		33:Heat circuit pump HC1 Q2
	5891	Relay output QX2	-	41:Status information K36		None
	5892	Relay output QX3	-	42:Flue gas damper K37 43:Fan shutdown K38		DHW ctrl elem Q3
	5930	Sensor input BX1	-	0: None 1:DHW sensor B31 2:Collector sensor B6 4:DHW circulating sensor B39 5:Buffer sensor B4 6:Buffer sensor B41 7:Flue gas temp sensor B8 8:Segment flow sensor B10 9:Solid fuel boiler sensor B22 10:DHW charging sensor B36 11:Buffer sensor B42 12:Segment return sensor B73 13:Cascade return sensor B70 14:Pool sensor B13		None
	5931	Sensor input BX2	-	16:Solar flow sensor B63 17:Solar return sensor B64 19: Primary exch sensor B26		7:Flue gas temp sensor B8

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Configuration						
	5970	Function input H4	-	0: None 1:Optg mode change HCs+DHW 2:Optg mode changeover DHW 3:Optg mode changeover HCs 4:Optg mode changeover HC1 5:Optg mode changeover HC2 6:Optg mode changeover HC3 7:Heat generation lock 8:Error/alarm message 9:Consumer request VK1 10:Consumer request VK2 11:Release swi pool source heat 12:Excess heat discharge 13:Release swi pool solar 14:Operating level DHW 15:Operating level HC1 16:Operating level HC2 17:Operating level HC3 18:Room thermostat HC1 19:Room thermostat HC2 20:Room thermostat HC3 21:DHW flow switch 22:DHW thermostat 24: Pulse count 28:Checkb sign flue gas damper 29:Start prevention 31:Boiler flow switch 32:Boiler pressure switch 50: Flow measurement Hz		Start prevention
	5971	Contact type H4	-	NC, NO		NC
	5973	Frequency value 1 H4	-	0	1000	0
	5974	Function value 1 H4	-	-1000	5000	0
	5975	Frequency 2 H4	-	0	1000	0
	5976	Function value 2 H4	-	-1000		0

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Configuration	6016	Function input H8	-	0: None 18 Room thermostat HC1 19 Room thermostat HC2 20 Room thermostat HC1		0: None
	6017	Type of contact H8	-	0: Normal closed, 1: Normal opened		0: Normal closed
	6018	Function input H9	-	0: None 18 Room thermostat HC1 19 Room thermostat HC2 20 Room thermostat HC1		0: None
	6019	Type of contact H9	-	0: Normal closed, 1: Normal opened		0: Normal closed
	6020	Function extension module 1	-	0: None 1:Multifunctional 2:Heating circuit 1 3:Heating circuit 2 4:Heating circuit 3 5:Return temp controller 6:Solar DHW 7:Primary contr/system pump		No function
	6021	Function extension module 2	-			No function
	6022	Function extension module 3	-			No function
	6024	Funct input EX21 module 1	-	0: None 25: Limit thermostat HC		None
	6026	Funct input EX21 module 2	-			None
	6028	Funct input EX21 module 3	-			None
	6030	Relay output QX21 module 1	-	0: None 1:Circulating pump Q4 2:El imm heater DHW K6 3:Collector pump Q5 4:Cons circuit pump VK1 Q15 5:Boiler pump Q1 6:Bypass pump Q12 7:Alarm output K10 8:2nd pump speed HC1 Q21 9:2nd pump speed HC2 Q22 10:2nd pump speed HC3 Q23 11:Heat circuit pump HC3 Q20 12:Cons circuit pump VK2 Q18 13:System pump Q14 14:Heat gen shutoff valve Y4 15:Solid fuel boiler pump Q10 16:Time program 5 K13 17:Buffer return valve Y15 18:Solar pump ext exch K9 19:Solar ctrl elem buffer K8 20: Solar ctrl elem swi pool K18 22: Swimming pool pump Q19 25:Cascade pump Q25 26:St tank transfer pump Q11 27:DHW mixing pump Q35 28:DHW interm circ pump Q33 29:Heat request K27 30:Refrigeration request K28 33:Heat circuit pump HC1 Q2 34:Heat circuit pump HC2 Q6 35:DHW ctrl elem Q3 36:Instant heater ctrl elem Q34 38:Water filling K34 39:2nd boiler pump speed Q27 40:Status output K35 41:Status information K36 43: Fan shutdown K38		None
	6031	Relay output QX22 module 1	-			None
	6032	Relay output QX23 module 1	-			None
	6033	Relay output QX21 module 2	-			None
	6034	Relay output QX22 module 2	-			None
	6035	Relay output QX23 module 2	-			None
	6036	Relay output QX21 module 3	-			None
	6037	Relay output QX22 module 3	-			None
	6038	Relay output QX23 module 3	-			None

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Configuration	6040	Sensor input BX21 module 1	-	0: None 1: DHW sensor B31 2: Collector sensor B6 4: DHW circulation sensor B39 5: Buffer sensor B4 6: Buffer sensor B41 7: Flue gas temp sensor B8 8: Common flow sensor B10 9: Solid fuel boiler sensor B22 10: DHW charging sensor B36 11: Buffer sensor B42 12: Common return sensor B73 13: Cascade return sensor B70 14: Swimming pool sensor B13 16: Solar flow sensor B63 17: Solar return sensor B64 19: Primary exch sensor B26		None
	6041	Sensor input BX22 module 1	-			None
	6042	Sensor input BX21 module 2	-			None
	6043	Sensor input BX22 module 2	-			None
	6044	Sensor input BX21 module 3	-			None
	6045	Sensor input BX22 module 3	-			None
	6046	Function input H2 module 1	-	0: None 1: Optg mode change HCs+DHW 2: Optg mode changeover DHW 3: Optg mode changeover HCs 4: Optg mode changeover HC1 5: Optg mode changeover HC2 6: Optg mode changeover HC3 7: Heat generation lock 8: Error/alarm message 9: Consumer request VK1 10: Consumer request VK2 11: Consumer request VK3 12: Excess heat discharge 13: Release swi pool solar 14: Operating level DHW 15: Operating level HC1 16: Operating level HC2 17: Operating level HC3 18: Room thermostat HC1 19: Room thermostat HC2 20: Room thermostat HC3 21: DHW flow switch 22: DHW thermostat 25: Limit thermostat HC 29: Start prevention 31: Boiler flow switch		None
	6054	Function input H2 module 2	-			None
	6062	Function input H2 module 3	-			None
	6047	Contact type H2 module 1	-	NC, NO		NO
	6055	Contact type H2 module 2	-			NO
	6063	Contact type H2 module 3	-			NO
	6049	Voltage value 1 H2 module 1	V	0	10	0
	6057	Voltage value 1 H2 module 2	V			0
	6065	Voltage value 1 H2 module 3	V			0
	6050	Function value 1 H2 module 1	-	-1000	5000	0
	6058	Function value 1 H2 module 2	-			0
	6066	Function value 1 H2 module 3	-			0

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Configuration	6051	Voltage value 2 H2 module 1	V	0	10	0
	6059	Voltage value 2 H2 module 2	V			0
	6067	Voltage value 2 H2 module 3	V			0
	6052	Function value 2 H2 module 1	-	-1000	5000	0
	6060	Function value 2 H2 module 2	-			0
	6068	Function value 2 H2 module 3	-			0
	6085	Output P1 function selection	-	0: None, 1: Boiler pump Q1		1: Boiler pump Q1
	6086	Signal logic output P1	-	0: Standard, 1: Inverted		1: Inverted
	6097	Sensor type collector	-	NTC, PT 1000		PT1000
	6098	Readjustm collector sensor	°C	-20	20	0
	6100	Readjustm outside sensor	°C	-3	3	0
	6110	Time constant building	h	0	50	5
	6117	Central setpoint shift	°C	1	100	5
	6118	Setpoint reduction delay	K/min	Off , 1 - 200		20
	6120	Frost protection plant	-	Off, On		Off
	6200	Save sensors	-	No, Yes		No
	6205	Reset to default parameters	-	No, Yes		No
	6212	Control number heat generation 1	-	0	199999	0
	6213	Control number heat generation 2	-	0	199999	0
	6215	Control number storage tank	-	0	199999	0
	6217	Control number heating circuits	-	0	199999	0
	6220	Device SW version	-	0	99	0
	6234	Boiler type number OEM	-	0	65535	251
	6236	Parameter set number OEM	-	0	65535	1296
	6351	Function OT channel 1	-	1: By ext. room controller 1 2: By ext. room controller 2 3: By ext. room controller 3 4: Hx Input		1: By ext. room controller 1
	6352	Function OT channel 2	-	1: By ext. room controller 1 2: By ext. room controller 2 3: By ext. room controller 3 4: Hx Input		2: By ext. room controller 2
	6355	Room controller HC1	-	1: Internally, 2: Externally		2: Externally
	6356	Room controller HC2	-	1: Internally, 2: Externally		1: Internally
	6357	Room controller HC3	-	1: Internally, 2: Externally		1: Internally
	6359	Extern handling DHW	-	0: None 1: By ext. room controller 1 2: By ext. room controller 2		1: By ext. room controller 1
LPB	6600	LPB-Adress	-	0	239	1
	6601	Segment address	-	0	16	0
	6604	LPB power supply function selection	-	0: Off, 1: Automatic		1: Automatic
	6610	Display system message	-	0: No, 1: Yes		1: Yes
	6612	Alarm delay	min	2-60 min		10
	6620	Central switch-over working area	-	0: Segment, 1: System		0
	6621	Summer/winter changeover automatic	-	0: Local, 1: Central		0: Local
	6623	Operating mode changeover	-	0: Local, 1: Central		1: Central
	6624	Manuall producer lock	-	0: Local, 1: Own segment		0: Local
	6625	Dhw allocation	-	0: Own controller 1: All controllers within own segment 2: All controllers within system		2: All controllers within system
	6630	Cascade master	-	1: Always, 2: Automatically		2: Automatically
	6631	Ext source with eco mode	-	0: Off, 1: On DHW, 2: On		0: Off
	6632	Outside temp limit external source accept	-	No, Yes		No
	6640	Clock time source	-	0: Autonomous clock in the controller 1: From bus: slave without remote setting 2: From bus: slave with remote setting 3: Controller is the clock time master		0: Autonomous clock in the controller

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
	6705	SW diagnostic code	-	0	65535	0
	6706	Burn ctrl phase lockout pos	-	0	255	0
	6710	Reset alarm relay	-	0	1	0
	6740	Flow temp 1 alarm	min			---
	6741	Flow temp 2 alarm	min			---
	6742	Flow temp 3 alarm	min	10	240	---
	6743	Boiler temp alarm	min			---
	6745	DHW charging alarm	h	1	48	---
	6800 6810 6820 6990	Time stamp error Note 1 Note 2 ..... Note 20	h:m	00:00	23:59	04
	6803 6813 6823 6993	Error code Note 1 Note 2 ..... Note 20	-	0	9999	0
	6805 6815 6825 6995	SW diagnostic code Past value 1 Past value 2 ...... Past value 20	-	0	9999	0
	6806 6816 6826 6996	Burner control phase Past value 1 Past value 2 ...... Past value20	-	0	255	0
Maintenance/Special mode	7040	Burner hours interval	h	100	10000	1500
	7041	Burn hrs since maintenance	h	0	10000	0
	7042	Burner start interval	-	100	65500	9000
	7043	Burn starts since maint	-	0	65535	0
	7044	Maintenance interval	Months	1	240	24
	7045	Time since maintenance	Months	0	240	0
	7050	Fan speed ionization current	rpm	0	10000	0
	7051	Message ionization current	-	No, Yes		No
	7130	Chimney sweep function	-	Off, On		Off
	7131	Burner output	-	Partial load, Full load, Max heating load		Full load
	7140	Manual control	-	Off, On		Off
	7143	Controller stop function	-	Off, On		Off
	7145	Controller stop setpoint	%	0	100	50
	7146	Deaeration function	-	Off, On		Off
	7147	Type of venting	-	None, Heating circuit continuous, Heating circuit cycled, DHW continuous, DHW cycled		None
	7170	Telephone customer service	-	0	9	0
	7250	PStick storage pos	-	0	250	0
	7251	PStick data description	-	0	255	0
	7252	PStick command	-	No operation, Reading from stick, Writing on stick		No operation
	7253	PStick progress	%	0	100	0
	7254	PStick status	-	0: No stick 1: No operation 2: Writing on stick 3: Reading from stick 4: EMC test active 5: Writing error 6: Reading error 7: Incompatible data set 8: Wrong stick type 9: Stick format error 10: Check data set 11: Data set disabled 12: Reading disabled		No Stick

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
I/O-Test	7700	Relay test	-	0: No test 1: Everything off 2: Relay output QX1 3: Relay output QX2 4: Relay output QX3 5: Relay output QX4 6: Relay output QX21 module 1 7: Relay output QX22 module 1 8: Relay output QX23 module 1 9: Relay output QX21 module 2 10: Relay output QX22 module 2 11: Relay output QX23 module 2 12: Relay output QX21 module 3 13: Relay output QX22 module 3 14: Relay output QX23 module 3		No test
	7713	Output test P1	%	0	100	---
	7714	PWM output P1	%	0	100	---
	7730	Outside temp B9	°C	-50	50	---
	7750	DHW temp B3/B38	°C	0	140	---
	7760	Boiler temp B2	°C	0	140	---
	7820	Sensor temp BX1	°C	-28	350	---
	7821	Sensor temp BX2	°C	-28	350	---
	7822	Sensor temp BX3	°C	-28	350	---
	7823	Sensor temp BX4	°C	-28	350	---
	7830	Sensor temp BX21 module 1	°C	-28	350	---
	7831	Sensor temp BX22 module 1	°C	-28	350	---
	7832	Sensor temp BX21 module 2	°C	-28	350	---
	7833	Sensor temp BX22 module 2	°C	-28	350	---
	7834	Sensor temp BX21 module 3	°C	-28	350	---
	7835	Sensor temp BX22 module 3	°C	-28	350	---
	7840	Voltage signal H1	V	0	10	---
	7841	Contact state H1	-	Open, Closed		---
	7845	Voltage signal H2 module 1	V	0	10	---
	7846	Contact state H2 module 1	-	Open, Closed		---
	7848	Voltage signal H2 module 2	V	0	10	---
	7849	Contact state H2 module 2	-	Open, Closed		---
	7851	Voltage signal H2 module 3	V	0	10	---
	7852	Contact state H2 module 3	-	Open, Closed		---
	7854	Voltage signal H3	V	0	10	---
	7855	Contact state H3	-	Open, Closed		---
	7862	Frequency H4	-	0		---
	7860	Contact state H4	-	Open, Closed		---
	7865	Contact state H5	-	Open, Closed		---
	7872	Contact state H6	-	Open, Closed		---
	7874	Contact state H7	-	Open, Closed		---
	7876	Contact state H8	-	Open, Closed		---
	7878	Contact state H9	-	Open, Closed		---
	7950	Input EX21 module 1	-	0V, 230V		---
	7951	Input EX21 module 2	-	0V, 230V		---
	7952	Input EX21 module 3	-	0V, 230V		---
Status	8000	State heating circuit 1	-			---
	8001	State heating circuit 2	-			---
	8002	State heating circuit 3	-			---
	8003	State DHW	-			---
	8005	State boiler	-			---
	8007	State solar	-			---
	8008	State solid fuel boiler	-			---
	8009	State burner	-			---
	8010	State buffer	-			---
	8011	State swimming pool	-			---

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Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Diagnostics cascade (when activated)	8100	Priority source 1	-	0	16	
	8101	State source 1	-	0: Missing 1: Faulty 2: Manual control active 3: Heat generation lock active 4: Chimney sweep funct active 5: Temporarily unavailable 6: Outside temp limit active 7: Not released 8: Released		
	8102	Priority source 2	-	0	16	
	8103	State source 2	-	See Line no. 8101		
	8104	Priority source 3	-	0	16	
	8105	State source 3	-	See Line no. 8101		
	8106	Priority source 4	-	0	16	
	8107	State source 4	-	See Line no. 8101		
	8108	Priority source 5	-	0	16	
	8109	State source 5	-	See Line no. 8101		
	8110	Priority source 6	-	0	16	
	8111	State source 6	-	See Line no. 8101		
	8112	Priority source 7	-	0	16	
	8113	State source 7	-	See Line no. 8101		
	8114	Priority source 8	-	0	16	
	8115	State source 8	-	See Line no. 8101		
	8116	Priority source 9	-	0	16	Indication only
	8117	State source 9	-	See Line no. 8101		
	8118	Priority source 10	-	0	16	
	8119	State source 10	-	See Line no. 8101		
	8120	Priority source 11	-	0	16	
	8121	State source 11	-	See Line no. 8101		
	8122	Priority source 12	-	0	16	
	8123	State source 12	-	See Line no. 8101		
	8124	Priority source 13	-	0	16	
	8125	State source 13	-	See Line no. 8101		
	8126	Priority source 14	-	0	16	
	8127	State source 14	-	See Line no. 8101		
	8128	Priority source 15	-	0	16	
	8129	State source 15	-	See Line no. 8101		
	8130	Priority source 16	-	0	16	
	8131	State source 16	-	See Line no. 8101		
	8138	Cascade flow temp	°C	0	140	
	8139	Cascade flow temp setpoint	°C	0	140	
	8140	Cascade return temp	°C	0	140	
	8141	Cascade return temp	°C	0	140	
	8150	Source seq ch'over current	h	0	990	

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Diagnostics heat generation	8304	Boiler pump Q1	-	Off, On		
	8308	Boiler pump speed	%	0	100	
	8310	Boiler temp	°C	0	140	
	8311	Boiler setpoint	°C	0	140	
	8312	Boiler switching point	°C	0	140	
	8313	Inst heater switching point	°C	0	140	
	8314	Boiler return temp	°C	0	140	
	8316	Flue gas temp	°C	0	350	
	8318	Flue gas temp max	°C	0	350	
	8321	Primary exchanger temp	°C	0	140	
	8323	Fan speed	omw./min	0	8000	
	8324	Setpoint fan	omw./min	0	8000	
	8325	Current fan control	%	0	100	
	8326	Burner modulation	%	0	100	
	8327	Water pressure	-	0	10	
	8329	Ionization current	µA	0	100	
	8330	Hours run 1st stage	h	00:00:00	2730:15:00	
	8331	Start counter 1st stage	-	0	2147483647	Indication only
	8338	Hours run heating mode	h	00:00:00	8333:07:00	
	8339	Hours run DHW	h	00:00:00	8333:07:00	
	8499	Collector pump 1	-	Off, On		
	8501	Solar ctrl element buffer	-	Off, On		
	8502	Solar ctrl elem swimming	-	Off, On		
	8505	Speed collector pump 1	%	0	100	
	8506	Speed solar pump ext exch	%	0	100	
	8507	Speed solar pump buffer	%	0	100	
	8508	Speed solar pump swi pool	%	0	100	
	8510	Collector temp 1	°C	-28	350	
	8511	Collector temp 1 max	°C	-28	350	
	8512	Collector temp 1 min	°C	-28	350	
	8513	dT collector 1/DHW	°C	-168	350	
	8514	dT collector 1/buffer	°C	-168	350	
	8515	dT collector 1/swimming pool	°C	-168	350	
	8519	Solar flow temp	°C	-28	350	
	8520	Solar return temp	°C	-28	350	
	8526	24-hour yield solar energy	kWh	0	999,9	
	8527	Total yield solar energy	kWh	0	9999999,9	
	8530	Hours run solar yield	h	00:00:00	8333:07:00	
	8531	Hours run collect overtemp	h	00:00:00	8333:07:00	
	8532	Hours run collector pump	h	00:00:00	8333:07:00	
	8560	Solid fuel boiler temp	°C	0	140	
	8570	Hours run solid fuel boiler	h	00:00:00	8333:07:00	

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Diagnose User	8700	Outside temp	°C	-50	50	
	8701	Outside temp min	°C	-50	50	
	8702	Outside temp max	°C	-50	50	
	8703	Outside temp attenuated	°C	-50	50	
	8704	Outside temp composite	°C	-50	50	
	8730	Heating circuit pump 1	-	Off, On		
	8731	Heat circ mix valve 1 open	-	Off, On		
	8732	Heat circ mix valve 1 close	-	Off, On		
	8735	Speed heating circuit pump 1	%	0	100	
	8740	Room temp 1	°C	0	50	
	8741	Room setpoint 1	°C	4	35	
	8743	Flow temp 1	°C	0	140	
	8744	Flow temp setpoint 1	°C	0	140	
	8749	Room thermostat 1	-	No demand, demand		
	8760	Heating circuit pump 2	-	Off, On		
	8761	Heat circ mix valve 2 open	-	Off, On		
	8762	Heat circ mix valve 2 close	-	Off, On		
	8765	Speed heating circuit pump 2	%	0	100	
	8770	Room temp 2	°C	0	50	
	8771	Room setpoint 2	°C	4	35	
	8773	Flow temp 2	°C	0	140	
	8774	Flow temp setpoint 2	°C	0	140	
	8779	Room thermostat 2	-	No demand, demand		
	8790	Heating circuit pump 3	-	Off, On		
	8791	Heat circ mix valve 3 open	-	Off, On		
	8792	Heat circ mix valve 3 close	-	Off, On		
	8795	Speed heating circuit pump 3	%	0	100	
	8800	Room temp 3	°C	0	50	Indication only
	8801	Room setpoint 3	°C	4	35	
	8803	Flow temp 3	°C	0	140	
	8804	Flow temp setpoint 3	°C	0	140	
	8809	Room thermostat 3	-	No demand, demand		
	8820	DHW pump	-	Off, On		
	8825	Speed DHW pump	%	0	100	
	8826	Speed DHW interm circ pump	%	0	100	
	8827	Speed inst DHW heater pump	%	0	100	
	8830	DHW temp 1	°C	0	140	
	8831	DHW temp setpoint	°C	8	80	
	8832	DHW temp 2	°C	0	140	
	8835	DHW circulation temp	°C	0	140	
	8836	DHW charging temp	°C	0	140	
	8852	DHW consumption temp	°C	0	140	
	8853	Instant WH setpoint	°C	0	140	
	8860	DHW flow	l/min	0	30	
	8875	Flow temp setpoint VK1	°C	5	130	
	8885	Flow temp setpoint VK2	°C	5	130	
	8895	Flow temp setpoint VK3	°C	5	130	
	8900	Swimming pool temp	°C	0	140	
	8901	Swimming pool setpoint	°C	8	80	
	8930	Primary controller temp	°C	0	140	
	8931	Primary controller setpoint	°C	0	140	
	8950	Common flow temp	°C	0	140	
	8951	Common flow temp setpoint	°C	0	140	
	8952	Common return temp	°C	0	140	

Parameters technician

Menu	Line no.	Selection possibilities	Unit	Min.	Max	Factory setting
Diagnose User	8962	Common output setpoint	%	0	100	Indication only
	8980	Buffer temp 1	°C	0	140	
	8981	Buffer setpoint	°C	0	140	
	8982	Buffer temp 2	°C	0	140	
	8983	Buffer temp 3	°C	0	140	
	9005	Water pressure H1	bar	0	10	
	9006	Water pressure H2	bar	0	10	
	9009	Water pressure H3	bar	0	10	
	9031	Relay output QX1	-	Off, On		
	9032	Relay output QX2	-	Off, On		
	9033	Relay output QX3	-	Off, On		
	9034	Relay output QX4	-	Off, On		
	9050	Relay output QX21 module 1	-	Off, On		
	9051	Relay output QX22 module 1	-	Off, On		
	9052	Relay output QX23 module 1	-	Off, On		
	9053	Relay output QX21 module 2	-	Off, On		
	9054	Relay output QX22 module 2	-	Off, On		
	9055	Relay output QX23 module 2	-	Off, On		
	9056	Relay output QX21 module 3	-	Off, On		
	9057	Relay output QX22 module 3	-	Off, On		
	9058	Relay output QX23 module 3	-	Off, On		
	-	2nd speed HC1 pump Q21	-	Off, On		Indication only
	-	Optg mode changeover HC1	-	Inactive, Active		
	-	2nd speed HC2 pump Q22	-	Off, On		
	-	Optg mode changeover HC2	-	Inactive, Active		
	-	2nd speed HC2 pump Q23	-	Off, On		
	-	Optg mode changeover HC3	-	Inactive, Active		
	-	El imm heater K6	-	Off, On		
	-	Circulating pump Q4	-	Off, On		
	-	Optg mode changeover DHW	-	Inactive, Active		
	-	H1 pump Q15	-	Off, On		
	-	H2 pump Q18	-	Off, On		
	-	H3 pump Q19	-	Off, On		
	-	Prim contr/system pump Q14	-	Off, On		
	-	Precontroller mixing valve opens Y19	-	Off, On		
	-	Precontroller mixing valve closes Y20	-	Off, On		
	-	Heat generation lock Y4	-	Off, On		
	-	Time switch program 5 relais K13	-	Off, On		
	-	Return temp valve Y15	-	Off, On		
	-	Heat demand K27	-	Off, On		
	-	Instantaneous heater pump Q34	-	Off, On		
	-	Storage transfer pump Q11	-	Off, On		
	-	DHW stirring pump Q35	-	Off, On		
	-	DHW intermediate circuit pump Q33	-	Off, On		
	-	Flowswitch	-	Off, On		

Parameters technician

Menu	Line no.	Selection possibilities	Unit	Min.	Max.	Factory setting
Burner control	9500	Pre-ventilation time	s	0	51	0
	9501	Prepurge time min	s	0	51	Indication only
	9504	Required fan speed during prepurging	U/min	200	12500	3500
	9505	Req speed prepurging min	U/min	200	12500	Indication only
	9506	Speed tolerance prepurging	U/min	50	1200	
	9512	Speed required at ignition load	U/min	200	12500	3500
	9513	Required speed ignition max	U/min	200	12500	Indication only
	9514	Speed tolerance ignition	U/min	50	1200	
	9517	Preignition time	s	0,4	20	
	9518	Safety time	s	1,8	9,8	
	9519	Safety time with ignition	s	0,2	9,6	
	9524	Required speed LF	U/min	0	12500	1350
	9525	Required speed LF min	U/min	0	12500	1350
	9526	Speed tolerance LF	U/min	50	1200	Indication only
	9529	Required speed HF	U/min	0	12500	5390
	9530	Required speed HF max	U/min	0	12500	Indication only
	9531	Speed tolerance HF	U/min	50	1200	
	9534	Optg time with ignition load	s	0,2	10	
	9540	After-ventilation time	s	0	51	10
	9541	Max. overrun time when TL / LT cuts out	min	0	10	Indication only
	9542	Postpurge time min	s	0	51	
	9551	Required speed stop max	U/min	0	2000	
	9610	Capacity		0	2	
	9611	LP configuration		0	5	
	9612	GP configuration		0	1	
	9614	Postpurging level		0	1	
	9615	Forced prepurging on error		0	1	
	9616	Max speed	0	1	12500	
	9630	Speed Kp	0	1	15.9375	
	9631	Speed Tn	0	12500	600	
	9632	Speed Tv	s	0	1,75	
	9650	Chimney drying		0	2	0
	9651	Req speed chimney drying	U/min	0	12500	500
	9652	Duration chimney drying	min	10	1440	10

Heating curve (only with QAA55)
for Parameter 720 and 1020

9.5 Menu: Heating circuits

Floor curing function

The floor curing function ensures controlled drying of the floor. It controls the flow temperature according to a temperature profile. Drying of the floor is ensured via the floor heating system and the mixing or pump heating circuit.

Floor curing function

Off
Function is deactivated.

Functional heating
The first part of the temperature profile is automatically completed.

Curing heating
The second part of the temperature profile is traversed automatically.

Functional/curing heating
The entire temperature profile (first and second part) is passed automatically.

Manually
It is not a temperature profile that is completed, but the floor setpoint is controlled manually.

Floor curing setp manually
The flow temperature setpoint for the manual floor-curing function can be set separately for each heating circuit.

Floor curing setp current
Shows the current flow temperature setpoint while the floor-curing function is in progress.

Floor curing day current
Shows the current weekday of the floor-curing function in progress.

Line no.		Operating line	Factory setting
HC1	HC2		
850	1150	**Floor curing function** Off Functional heating Curing heating Functional/curing heating Manually	Off
851	1151	Floor curing setp manually	25°C
855	1155	Floor curing setp current	Indication only
856	1156	Floor curing day current	0

Bh	Floor curing heating
Fh	Functional heating
X	Start day

- Observe the relevant standards and regulations of the floor manufacturer
- Proper functioning is ensured only when the plant is correctly installed (hydraulic system, electrical installation, setting)! If not observed, the floor might get damaged
- The function can be aborted by choosing Off
- Maximum limitation of the flow temperature remains active

Gas supply
Check the connection for the gas supply to the boiler for tightness.
Possible leaks of must be sealed before the boiler is started.

De-aerate the gas pipe and the gas valve.

Request information on the gas type and values from the local gas supplier, so as to make sure that the boiler is operated with the correct gas type.

⚠ **After assembly of the boiler, all gascarrying pipes must be checked for leaks.**

Condensate connection
Make sure that the siphon has been filled before the boiler is started up, so as to prevent emission of waste gases from the condensate connector.

Filling the siphon after assembly
Removed the siphon from the condensate connector in the boiler. Fill it with 0.3 litres of water and then turn it hand-tight back into its original position.

Flue gas and air supply connections
Check that the connectors for waste gas and air supply correspond to the domestic and regional regulations. Facilities that do not fulfil these regulations may not be taken into operation.

Make sure that all connectors are free.

Flue gas and air supply connectors may not be reduced in size.

⚠ **Before taking the boiler into operation, it must be ensured that dirt particles, which may be present in the heating facility, are removed by a thorough flushing of the piping system.**

Water pressure
Open the valves to the system. Check the water pressure in the system:
minimum operating pressure > 1.0 bar.

Hydraulic system
Check that the boiler is connected to hydraulic system in such a way that a water flow is insured at all times, when the boiler is in operation. The water flow is monitored by an ΔT surveillance in the boiler. A too low flow rate means that the boiler will stop operating and be switched off immediately.

Filling and de-aeration of the ATAG QR and the heating facility
The heating facility is filled according to the standard method.
The facility must have been deaerated, both on the heating and the warm water side.
The water pressure can be read off in bar, either on the analog pressure indicator or via the Info button. As soon as the heating facility has been filled and de-aerated, the boiler will be ready for operation.
The water pressure should be checked after an appropriate period and, if necessary, water should be topped up.
(Note: Before topping up the water, first fill the hose with water, which prevents the entry of air into the heating system).

De-aeration function
An automatic de-aeration will be carried out on the water-side of the system, for instance after the system is filled for the first time. During this procedure, the system is set to "Safety mode" (symbol: circle with bar).
The pump(s) is(are) switched on and off several times. If a 3-way valve has been installed,

then the system is set to the warm water position, and the pump(s) is(are) switched on and off several times. At the end of this function, the boiler switches back to normal operations.

⚠️ **It can take a while before all air has disappeared from a filled installation. Especially in the first week noises may be heard which indicate the presence of air. The automatic air vent in the boiler will make this air disappear, which means the water pressure can reduce during this period and therefore topping up with water will have to be done.**

10.1 Preparations for first use

- Push the mains circuit breaker, for connecting the boiler to electrical power;
- Use the ON/OFF switch (A) to turn the boiler on;
- Ensure that the boiler remains in standby mode;
- Test the pump function;
- Check whether the automatic de-aeration program has been running. If not yet de-aerated:

3 sec. 👆 *Hold down the E button for more than 3 seconds. This function runs for approximately 16 minutes;*
- Open the gas connection.

10.2 Hot water supply

Apply the water pipe pressure to the cylinder (open main valve and/or stop valve of the safety group).

Vent the cylinder and the hot water installation by opening a hot water tap. Leave the tap open for as long as required until all air has disappeared from the cylinder and the pipes and only water is flowing from the tap.

10.3 The O_2 / CO_2 check on full load (Step 1/3)

Legend:

A On/Off switch
B Back button (ESC)
C Room temperature control button
D Confirmation button (OK)
E Function button for manual operation
F Chimney sweep function button
G Info button
H Reset button
I Operation mode button for heating circuit(s)
L Operating mode button for DHW
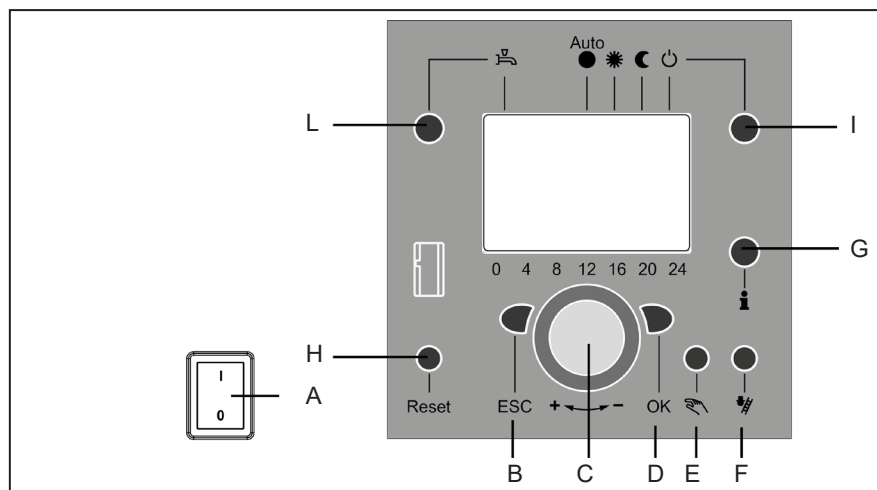
The O_2 / CO_2 percentage is set by the factory. It has to be checked during inspection, maintenance and faults.

The O_2 check consists of 2 steps or, if necessary, 3 steps:

Step 1:   **Check on full load**
Step 2:   **Check on low load**
Step 3:   **Adjustment (if necessary).**

Stap 1: O_2 / CO_2 Controle op vollast
The O_2 or CO_2 setting is preset at the factory. A calibrated O_2 or CO_2 control measurement must be carried out during commissioning. The measuring tool must have an accuracy of 0.3% (Full range).

- Ensure that the boiler is in operation and that the heat, which it produces, can be discharged.

Legend

a Measuring point of the waste gas probe

Set the full load
You can set the full load of the boiler as follows:

- Push the button I > 3 sec., with which the control unit of the boiler is set to the Commissioning function;
- Push the button "G" until the number "50%" appears;
- Push the button "D" once (OK button for confirmation) until the number "50%" blinks;
- Turn the rotating button "C" (temperature control / menu selection switch) in a clockwise direction, until the number "100%" is displayed;
- Push the "D" (OK) button once, so that the number "100%" no longer blinks. Now the equipment unit will operate at full load (100%);
- Calibrate the O_2 / CO_2 measuring tool, and then insert the waste gas probe of the measuring tool into the waste gas pipe "A" (see illustration);
- Wait for one minute and then carry out a combustion analysis. Check whether the O_2 / CO_2 values that are listed below correspond to the measured value.

After this setting has been made, once more test the O2/CO2 value at low load (see Step 2 on page 67). If there are any changes in the result, then these must be corrected (see Step 3 on page a 70).

O_2 / CO_2 check on full load (Step 1)		
Full load	**Natural gas K**	**Propane (G31)***
O_2	Nominal 4,7%	Nominal 5,1%
	Minimum 3,6%, maximum 5,5%	Minimum 4,1%, maximum 5,8%
CO_2	Nominaal 9,0%	Nominaal 10,3%
	Minimum 8,6%, maximum 9,6%	Minimum 9,9%, maximum 11,0%

Values valid with closed air box.

* Only possible if LPG conversion kit is installed!

Legend:
A On/Off switch
B Back button (ESC)
C Room temperature control button
D Confirmation button (OK)
E Function button for manual operation
F Chimney sweep function button
G Info button
H Reset button
I Operation mode button for heating circuit(s)
L Operating mode button for DHW
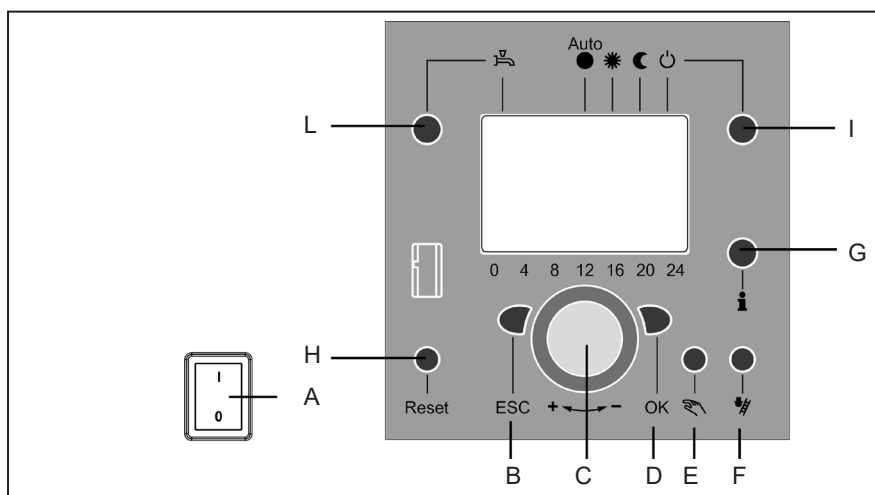
Step 2: O_2 / CO_2 check on low load

Setting the low load
The low load of the boiler can be set by you as follows:
-   Push the button "D" once (OK button for confirmation) until the number "100%" blinks;
-   Turn the rotating button "C" (temperature control / menu selection button) in a counterclockwise direction, until the number "0%" is displayed;
-   Push the button "D" once (OK) until the number "0" no longer blinks. Now the equipment unit will operate at low load (0%);
-   Use the measuring tool to carry out a O_2 / CO_2 control measurement. The detected values must lie in the measuring range shown below.
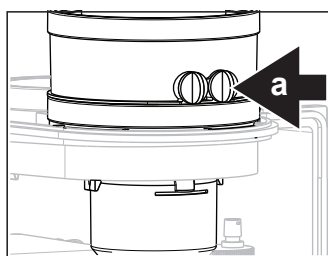
The O_2 value at low load must lie higher than the O_2 value at full load, respectively the CO_2 value at low load must lie lower than the CO_2 value at full load.

The measuring procedure must be carried out, until a constant measuring result is achieved. Please take up contact with ATAG, if the values should lie outside of the applicable tolerances.

Legend

a Measuring point of the waste gas probe

Switching off
-   Push the button "I" and keep the button pressed until the stop function switches off. The standard display appears.

The maximum operating time of the stop function is 4 hours without interruption.

| O_2 / CO_2 check on low load (Step 2)		
Low load	**Natural gas**	**Propane (G31)***
O_2	Minimal 1,0% higher than measured on full load	Minimal 0,2% higher than measured on full load
	Maximum 7,5%	Maximum 7,3%
CO_2	Minimal 0,5% lower than measured on full load	Minimal 0,1% lower than measured on full load
	Minimum 7,5%	Minimum 8,9%

Values are valid with closed cover/air box.   *** Only possible if LPG conversion kit is installed!**
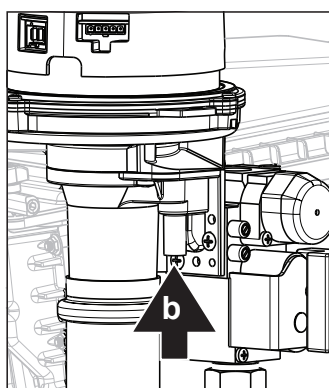
10.5 Adjustment on the gas valve (Step 3/3)

Legend:
A   On/Off switch
B   Back button (ESC)
C   Room temperature control button
D   Confirmation button (OK)
E   Function button for manual operation
F   Chimney sweep function button
G   Info button
H   Reset button
I   Operation mode button for heating circuit(s)
L   Operating mode button for DHW
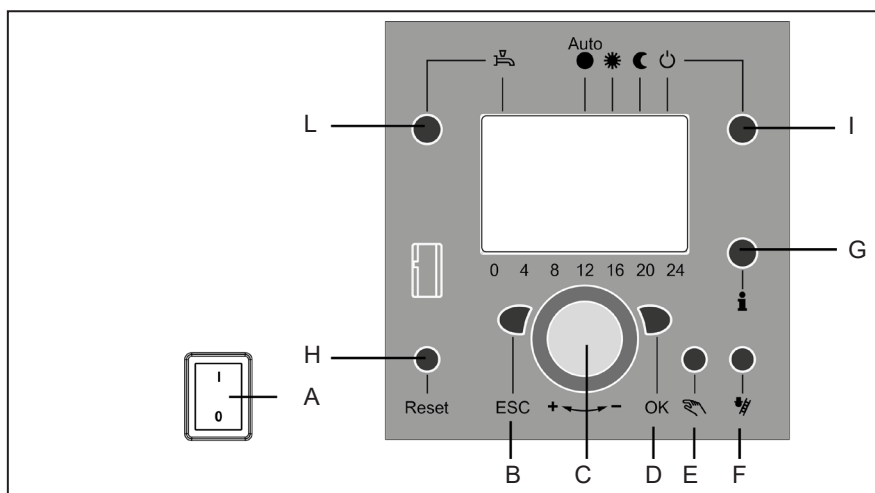
Stap 3: Adjustment on the gas valve

Only if the measured values are outside the range of the table on the previous page.

- Open the boiler as described on page 71;

- Set the boiler on full load (see Step 1);

- The O_2 / CO_2 values are set by using an Allen key (4 mm), or a large flat head screwdriver, on the screw "B".
  Please observe the following rotating direction:
  - Clockwise means **more** O_2 / **less** CO_2
  - Counterclockwise means **less** O_2 / **more** CO_2

Legend

a Measuring point of the waste gas probe
b Set screw for O_2 / CO_2

> **After this setting has been made, once more test the O_2 / CO_2 value at full load and low load. See Step 1 and 2.**

Adjustment of the gas valve in case the measured values lies out of range of the values on full load (Step 3)		
Full load	**Natural gas**	**Propane (G31)***
O_2	4,7%	5,1%
CO_2	9,0%	10,3%

Values valid with closed air box.   *** Only possible if LPG conversion kit is installed!**

11.1 Maintenance activities

Required tools:
- Cross head screwdriver
- ATAG T-handle key set with 3 bits (hex key 4mm, hex key 5mm and cross head PZ2)
- Wrench 8mm
- Multimeter
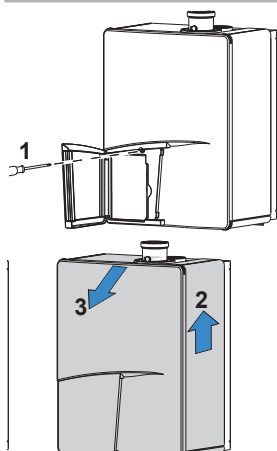
Removing casing

figure 11.1.a

To carry out the maintenance activities please follow the next procedure:
- Switch off the power supply;
- Remove the screw behind the door on the front of the casing (see fig. 11.1.a);
- Lift the casing (2) and remove it towards the front (3).
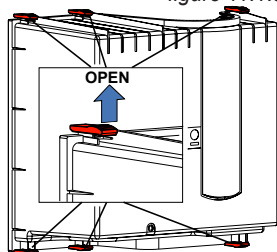
Opening air box

figure 11.1.b

The air box

- Remove the transparant air box (see fig. 11.1.b);
- Clean the box with a cloth with a simple (non-abrasive) cleaning agent;

The fan unit and burner cassette (see fig. 11.1.c - d)
- Remove the electrical connection plug from the gas valve (1) and fan motor (2);
- Loosen the nut of the gas pipe (3) under the gas valve;
- Replace the gasket with a new one;
- Loosen the front cross head screw (4) of the black plastic silencer;
- Now turn the left (9) and right clamp bars (10) with the hex key a quarter turn and pull these out in a forward motion. Mind the direction of rotation (red control cams);
- Slightly lift the complete fan unit and remove it towards the front of the heat exchanger;
- Remove the burner cassette from the ventilator unit;
- Check the burner cassette for wear and tear, pollution and any breakages. Clean the burner cassette with a soft brush and vacuum cleaner. In the case of breakages, always replace the complete burner cassette;
- Replace the gasket between the burner and upper casing;
- Replace the gasket between the upper casing and exchanger;
- Check the venturi and the gas air distribution plate or pollution and clean them with a soft brush in combination with a vacuum cleaner, if necessary. If the inside of the boiler casing is heavily polluted with dust, it is likely that the fan impeller is also polluted.
  To clean the fan, it has to be removed from the upper tray and the venturi. Clean the impeller with a soft brush and a vacuum cleaner. Replace the gasket and take care that the new gasket is installed properly when reassembling the fan parts.
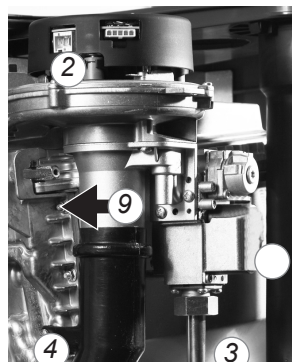
Fan unit and gas valve
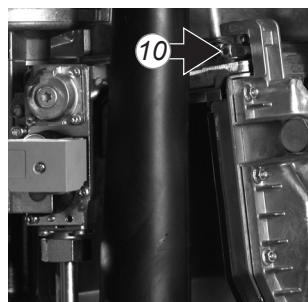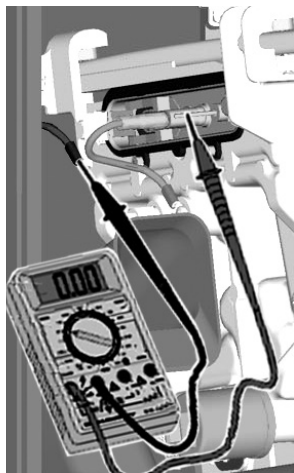
figure 11.1.c

figure 11.1.d

Heat exchanger

- Check the heat exchanger for contamination. Clean this if necessary with a soft brush and a vacuum cleaner. Prevent dirt falling down into the heat exchanger.

⚠ **Flushing the heat exchanger from the top down is not permitted.**

Reassembly takes place in reverse order.

Measuring ionisation current
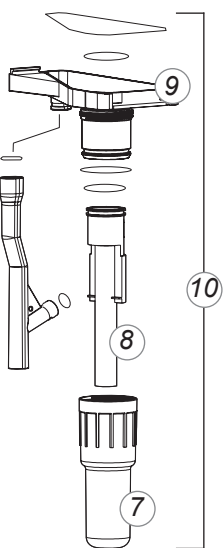*figure 11.1.e*

Ignition electrode
The replacement of the electrode is only necessary when the electrode is worn off. This can be checked by measuring the ionisation current with a multimeter (see figure 11.1.e). The minimum ionisation current has to be greater than 4μA at full capacity.

If the viewing glass is damaged the complete electrode must be replaced.
Replacement goes as follows:
- Remove the electrical connections of the electrode;
- Press the clips on both sides of the electrode to both sides and remove the complete electrode;
- Remove and replace the gasket;

Reassembly takes place in reverse order.

Siphon   figure 11.1.f

Siphon and condensate tray (see figure 11.1.f - h)
- First remove the condensate cup (7).
  Check this for pollution. If there is no sign of strong pollution it is not necessary to clean the condensate tray. If there is strong pollution in the cup it is necessary to remove and clean the condensate tray;
- Remove the inner siphon pipe (8) which remains in the condensate tray;
- Check the O-rings of the cup as well as those from the pipe and replace if necessary;
- Clean both parts by flushing it with clean water;
- Grease the O-rings again with acid free O-ring grease to make fitting easier;
- If there is a leak at the condensate cup (7) or tray (9) the complete condensate trap unit (10) has to be replaced by S4451610;
- Remove the plug from the flue gas sensor if present;
- Turn the two short clamp bars (11 and 12) ¼ turn with the hex key and remove them by pulling them forward. **Note the correct turning direction (red indicator)**;
- Lift the exhaust pipe (13) about 1 cm upwards;
- Press the condensate tray (14) carefully downwards and remove it by pulling it forward;
- Replace the gasket between condensate tray and heat exchanger by a new one;
- Clean the condensate tray with water and a hard brush;
- Check the condensate tray on leaks.

Reassembly takes place in reverse order.

Condensate tray   figure 11.1.g

⚠️
Note that all gaskets seals completely.
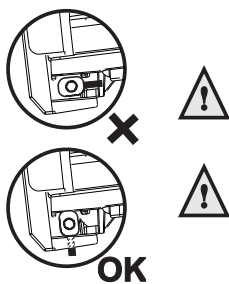
Clamp bars   figuur 11.1.h

During installation pay attention to the correct position of the clamp bars. These have to be in a vertical position.

Always replace the gaskets of the removed parts during maintenance, if required.

Put the boiler into operation and check the O_2 (see page 68).

In the event that parts require replacement, use only genuine parts supplied by ATAG Heating UK Ltd.

Please contact your installer or ATAG Heating UK Ltd. for further details. Contact details can be found on the back page of this manual.

After servicing, complete the relevant Service Interval Record section of the Benchmark Checklist located on the inside back page of the document.

11.2 Maintenance frequency

ATAG Heating UK Ltd advises an annual inspection, with a full strip down service as required, depending on the CO, CO_2 and ratio figures.

11.3 Warranty

For the warranty conditions we refer to the Warranty Card that is supplied with the boiler.

12   Error indication

If the facility is shut down, then a warning signal (🔔) and a blinking error code is displayed on screen. The cause of the shutdown must first be remediated, before one can proceed with a reset. The attached to list shows possible reasons for shutdowns and the possible cause of the malfunction

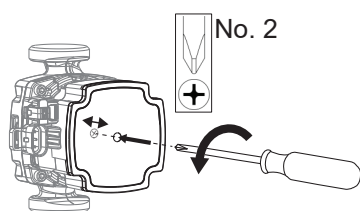| Code	Description of the error
0	No error
10	Outdoor temperature sensor error
20	Boiler temperature 1 - sensor defect
26	Joint inlet temperature sensor error
28	Smoke/ waste gas temperature sensor error
30	HC Inlet temperature 1 - sensor defect
32	HC Inlet temperature 2 - sensor defect
38	Inlet temperature of pre-controller sensor error
40	Return temperature 1 - sensor defect
46	Return temperature cascade sensor error
47	Joint return temperature sensor error
50	Drinking water temperature 1 sensor error
52	Drinking water temperature 2 sensor error
54	Drinking water pre-controller sensor error
57	Drinking water circulation temperature sensor error
60	Room temperature 1 - sensor defect
65	Room temperature 2 - sensor defect
70	Buffer tank temperature 1 sensor error
71	Buffer tank temperature 2 sensor error
72	Buffer tank temperature 3 sensor error
73	Collector temperature 1 sensor error
74	Collector temperature 2 sensor error
82	LPB address collision
83	BSB wire short-circuit
84	BSB address collision
85	BSB radio communications error
91	EEPROM error with locking information
98	Expansion module 1 error (combined error)
99	Expansion module 2 error (combined error)
100	Two master clocks (LPB)
102	Master clock without power reserve (LPB)
103	Communications error
105	Maintenance report
109	Boiler temperature monitoring
110	Safety temperature limiter defect shutdown
111	Temperature monitor shutdown
117	Water pressure too high
118	Water pressure too low
119	Shutdown water pressure switch
121	Flow temperature 1 (heating circuit 1) monitoring
122	Flow temperature 2 (heating circuit 2) monitoring
125	Pump monitoring error
126	Drinking water filling monitoring
127	Anti-legionella temperature not reached
128	Flame failure during operations
129	Fan failure or air pressure monitor error
130	Limit value of waste gas temperature exceeded
131	Burner malfunction
132	Gas pressure monitor or air pressure monitor error
133	No flame during safety interval
146	Configuration error group report
151	Internal error
152	Parameterization error
153	Facility manually locked
160	Fan error
162	Air pressure monitor error - does not close
164	Heating circuit flow switch error
166	Air pressure monitor error - does not open
171	Alarm contact H1 or H4 active
172	Alarm contact H2 (EM1, EM2 or EM3) or H5 active

Code	Description of the error
173	Alarm contact H6 active
174	Alarm contact H3 or H7 active
178	Temperature monitor heating circuit 1
179	Temperature monitor heating circuit 2
183	Equipment in parameterization mode
193	Pump monitor error after flame activation
216	Boiler malfunction
217	Sensor error
241	Solar sensor flow error
242	Return sensor solar sensor error
243	Swimming pool temperature sensor error
270	Monitoring function
317	Mains frequency outside of permitted range
320	Drinking water filling temperature sensor error
322	Water pressure too high
323	Water pressure too low
324	BX same sensors
325	BX / Expansion module same sensors
326	BX / Mixing group same sensors
327	Expansion module same function
328	Mixing group same function
329	Expansion module / mixing group same function
330	Sensor BX1 no function
331	Sensor BX2 no function
332	Sensor BX3 no function
333	Sensor BX4 no function
334	Sensor BX5 no function
335	Sensor BX21 no function (EM1, EM2 or EM3)
336	Sensor BX22 no function (EM1, EM2 or EM3)
337	Sensor BX1 no function
338	Sensor BX12 no function
339	Collector pump Q5 is missing
340	Collector pump Q16 is missing
341	Collector sensor B6 is missing
342	Solar drinking water sensor B31 is missing
343	Solar integration is missing
344	Solar actuator buffer K8 is missing
345	Solar actuator swimming pool K18 is missing
346	Solid boiler pump Q10 is missing
347	Solid boiler pump comparison sensor is missing
348	Solid boiler address error
349	Buffer return valve Y15 is missing
350	Buffer memory address error
351	Pre-controller / supply pump address error
352	Hydraulic separator address error
353	Rail flow sensor B10 is missing
371	Flow temperature 3 (heating circuit 3) monitoring
372	Temperature monitor heating circuit 3
373	Expansion module 3 error (combined error)
378	Repetition counter internal error expired
379	Repetition counter stray light
380	Repetition counter flame failure during operation expired
381	Repetition counter no flame during safety interval expired
382	Repetition counter below error expired
383	No repetition permitted
384	Stray light
385	Mains undervoltage
386	Fan rotation speed outside of permitted range
388	Drinking water sensor no function
391	Outside sensor error
426	Response from waste gas damper
427	Configuration waste gas damper
430	Dyn. water pressure too low / Pump blocked* / PWM-signal is missing
431	Sensor primary heat exchanger
432	Functional earth not connected
433	Temperature primary heat exchanger to high

* First measure to solve fault code 430: Manually deblocking of the boiler pump.

No. 2

Technical specifications Natural gas		ATAG QR-Serie						
		Solo				**Combi**		
Boiler type		**Q25SR**	**Q38SR**	**Q51SR**	**Q60SR**	**Q25CR**	**Q38CR**	**Q51CR**
CE product identification number (PIN)		0063BQ3021						
Country of destination		UK/IE						
WType heat exchanger		OSS1	OSS2	OSS3	OSS4	OSS2	OSS2	OSS3
Q_{min} input min. CH & DHW (Hi)	kW	4,5	6,2	9,0	9,0	6,2	6,2	9,0
Q_n input nominal CH (Hi)	kW	22,5	34,2	45,9	54,0	22,5	34,2	45,9
Q_{min} input min. CH & DHW (Hs)	kW	5,0	6,9	10,0	10,0	6,9	6,9	10,0
Q_n input nominal CH (Hs)	kW	25,0	38,0	51,0	60,0	25,0	38,0	51,0
Q_{nw} input nominal DHW (Hi)	kW	-	-	-	-	31,5	34,2	45,9
Q_{nw} input nominal DHW (Hs)	kW	-	-	-	-	35,0	38,0	51,0
P_{min} output min. CH (50/30°C)	kW	4,9	6,7	9,7	9,7	6,7	6,7	9,7
P_n output nominal CH (50/30°C)	kW	24,3	37,0	49,6	58,4	24,3	37,0	49,6
P_{min} output min. CH (80/60°C)	kW	4,4	6,1	8,8	8,8	6,1	6,1	8,8
P_n output nominal CH (80/60°C)	kW	22,1	33,6	44,9	52,9	22,1	33,6	44,9
P_{ww} output DHW	kW	-	-	-	-	33,3	36,2	48,6
No_x klasse EN483		6						
CO_2 / O_2 (full load)	%	9 / 4,7						
Appliance type		B23, B33, C13, C33, C43, C53, C63, C83, C93						
Flue gas temperature class		T100						
Max. flue resistance at Qnw/Qn	Pa	73	75	72	110	83	98	72
Flue gas temperature CH (80/60°C full load)	°C	68	68	70	70	68	68	70
Flue gas temperature CH (50/30°C full load)	°C	42	42	45	45	42	42	45
Flue gas temperature CH (36/30°C low load)	°C	31						
Flue gas mass flow (full load DHW)	g/s	10	16	21	25	10	16	21
Gas categories		II_{2H3P}						
Gas pressure 2H / 3P	mbar	20 / 37						
Gas consumption max. G20	m³/h	2,38	3,62	4,86	5,72	2,38	3,62	4,86
Boiler power consumption	W	104	133	136	155	104	133	136
Current	V/Hz	230/50						
Degree of protection acc. EN 60529		IPX0D(IP40)						
Weight boiler (empty)	kg	52	52	56	68	68	76	87
Water volume in heating circuit	l	3,5	3,5	5	7	7	5	5
Water volume in DHW circuit	l	-	-	-	-	14	14	14
Overrun time pump CH	min	3						
Overrun time pump DHW	min	-	-	-	-	1		
P_{MS} water pressure CH min./max.	bar	1/2.5						
P_{MW} water pressure DHW min./max.	bar	-	-	-	-	0,5/8		
Flow temperature max.	°C	85						
Available pump height CH	kPa	25	20	*	*	25	20	*
DHW temperature setting (Tin=10°C)	°C	-	-	-	-	60	60	60
Threshold DHW	l/min	-	-	-	-	0	0	0
DHW flow (Tin=10°C, DT=35°C)	l/min	-	-	-	-	10,7	13,3	18,6
DHW flow (Tin=10°C, DT=28°C)	l/min	-	-	-	-	13,4	16,6	23,2
SAP Annual Efficiency NG	%	89,6	89,4	89,5	89,5	89,3	89,3	89,4

*Low velocity header required

ErP specifications according to European regulation 2013/813/EU		ATAG QR-Serie						
		Solo				Combi		
Boiler type		Q25SR	Q38SR	Q51SR	Q60SR	Q25CR	Q38CR	Q51CR
Declared load profile DHW		-	-	-	-	XXL	XXL	XXL
Seasonal space heating energy efficiency class CH		A	A	A	A	A	A	A
Water heating energy efficiency class DHW		-	-	-	-	A	A	B
P_n Power output	kW	22	34	45	53	22	34	45
Q_{HE} Annual energy consumption	GJ	72	109	147	173	72	109	147
AEC Annual electricity consumption DHW	kWh	-	-	-	-	44	52	44
AFC Annual fuel consumption DHW	GJ	-	-	-	-	24	24	24
η_s Seasonal space heating energy efficiency CH	%	94	94	94	94	94	94	94
η_{WH} Water heating energy efficiency DHW	%	-	-	-	-	80	81	79
L_{WA} Sound power level, indoors	dB	47	50	54	57	47	50	54
P_4 nominal output (80/60°C)	kW	22,1	33,6	44,9	52,9	22,1	33,6	44,9
P_1 30% of nominal output (36/30°C)	kW	7,5	11,3	15,1	17,8	7,4	11,3	15,1
η_4 efficiency at nominal input (GCV)	%	88,4	88,4	88,1	88,1	88,4	88,4	88,1
η_1 rendement bij 30% van de nominale belasting (GCV)	%	99,5	99,0	98,9	98,8	99,3	99,0	98,9
el_{max}	kW	0,079	0,093	0,125	0,143	0,079	0,093	0,125
el_{min}	kW	0,032	0,034	0,034	0,034	0,025	0,034	0,034
P_{SB}	kW	0,003	0,003	0,003	0,003	0,003	0,003	0,003
P_{stby} heat loss	kW	0,045	0,045	0,045	0,045	0,045	0,045	0,045
Q_{elec} Daily electricity consumption DHW	kWh	-	-	-	-	0,200	0,241	0,202
Q_{fuel} Daily fuel consumption DHW	kWh	-	-	-	-	30,134	29,850	30,618

| Technical specifications Propane (3P)		ATAG QR-Serie						
		Solo				Combi		
Boiler type		Q25SR	Q38SR	Q51SR	Q60SR	Q25CR	Q38CR	Q51CR
Type heat exchanger		OSS1	OSS2	OSS3	OSS4	OSS2	OSS2	OSS3
O_2 (full load)	%	10,5						
CO_2 (full load)	%	5,1						
Restriction diameter/marking	mm	4,15	5,2	5,55	5,55	5,2	5,2	5,55
Pre pressure	mbar	see type plate propane						
Input CH (DHW) (Hi)	kW	22,5	34,2	45,9	54	22,5/31,5	34,2	45,9
Gas consumption max. G31	kg/h	1,75	2,66	3,57	4,20	2,45	2,66	3,57
Gas consumption max. G31	m3/h	0,92	1,40	1,88	2,21	1,29	1,40	1,88
Modulation range CH (80/60°C)	kW	9,8-22,1	15,6-33,6	30,3-44,9	30,3-52,9	15,6-22,1	15,6-33,6	30,3-44,9
Modulation range CH (50/30°C)	kW	11,0-23,9	17,5-36,3	33,0-48,7	33,0-57,3	17,5-23,9	17,5-36,3	33,0-48,7

Annex B   System water additives

When the filling water requirements as referred to in chapter Water Quality have been met, certain additives are allowed for the below mentioned applications and related dosage. Warranty on ATAG delivered installation products expires, if these additives and concentrations are not used in accordance with this annex.

Additive type	Supplier and specifications	Max. concentration	Application
Corrosion inhibitors	Sentinel X100 Corrosion resistant protection agent of CH systems Kiwa certified	1-2 l/100 litres CH water content	Aqueous solution of organic and inorganic agents preventing corrosion and scale forming
	Fernox F1 Protector Corrosion resistant protection agent of CH systems Kiwa certified KIWA-ATA K62581, Belgaqua certified Cat III	500 ml can or 265 ml Express / 100 litres CH water content	Preventing corrosion and scale forming
Frost Protection	Kalsbeek Monopropyleneglycol / propane-1,2-diol + inhibitors AKWA-Colpro KIWA-ATA Nr. 2104/1	50% w/w	Frost Protection
	Tyfocor L Monopropyleneglycol / propane-1,2-diol + inhibitors	50% w/w	Frost Protection
	Sentinel X500 Monopropyleneglycol + inhibitors Kiwa certified	20-50% w/w	Frost Protection
	Fernox Alphi 11 Monopropyleneglycol + inhibitors Kiwa certified KIWA-ATA K62581, Belgaqua certified Cat III	25-50% w/w	Frost Protection in combination with F1 Protector
System cleaners	Sentinel X300 Solution of phosphate, organic heterocyclic compounds, polymers and organic bases Kiwa certified	1 litre / 100 litres	For new CH installations Removes oils/grease and flow control agents
	Sentinel X400 Solution of synthetic organic polymers	1-2 litres / 100 litres	For cleaning existing CH-installations Removes sediments.
	Sentinel X800 Jetflo Aqueous emulsion of dispersants, moistening agents and inhibitors	1-2 litres / 100 litres	For cleaning new and existing CH-installations Removes iron and lime-related sediments.
	Fernox F3 Cleaner Liquid pH neutral universal cleaner for pre-commissioning new systems	500 ml / 100 litres	For cleaning new and existing CH-installations Removes sludge, limescale and other debris.
	Fernox F5 Cleaner, Express pH neutral universal cleaner concentrate for pre-commissioning new systems	295 / 100 litres	For cleaning new and existing CH-installations Removes sludge, limescale and other debris.

ATAG support the use of inhibitors suitable for mixed metal applications that keep the pH level between 6 and 8. Dosage levels as per manufacturers instructions. Preferred inhibitor suppliers are Fernox and Sentinel.
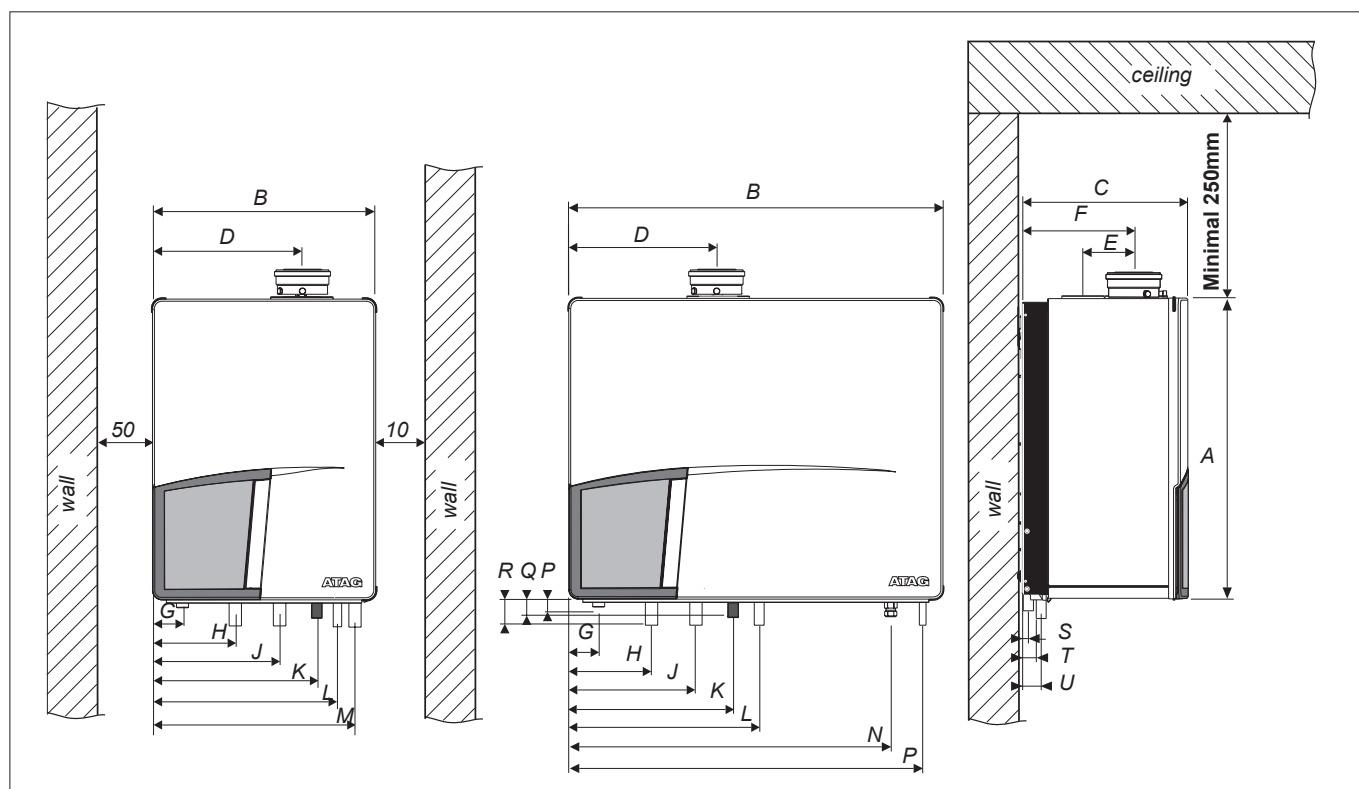
	Boiler type		ATAG QR-Serie						
			Q25CR	Q38CR	Q51CR	Q25SR	Q38SR	Q51SR	Q60SR
A	Height	mm	680	680	680	680	680	680	680
B	Width	mm	840	840	1000	500	500	660	660
C	Depth	mm	385	385	385	385	385	385	385
D	Left side / flue gas connexion	mm	335	335	495	335	335	495	495
E	Centre to centre flue gas and air supply	mm	120	120	120	120	120	120	120
F	Back / flue gas connexion	mm	270	270	270	270	270	270	270
G	Left side / gas pipe	mm	65	65	65	65	65	65	65
H	Left side / flow pipe	mm	185	185	185	185	185	185	185
J	Left side / return pipe	mm	285	285	445	285	285	445	445
K	Left side / condensate pipe	mm	370	370	530	370	370	530	530
L	Left side / expansion pipe	mm	430	430	590	430	430		
M	Left side / return pipe DHW					475	475		
N	Left side / cold water pipe	mm	725	725	885				
O	Left side / hot water pipe		765	795	955				
P	Pipe length of g*	mm	18	18	18	18	18	18	18
Q	Pipe length of c*	mm	40	40	40	40	40	40	40
R	Pipe length of a; r*	mm	60	60	60	60	60	60	60
S	Back / centre of pipe c*	mm	25	25	25	25	25	25	25
T	Back / centre of pipe g*	mm	40	40	40	40	40	40	40
U	Back / centre of pipe a and r*	mm	50	50	50	50	50	50	50
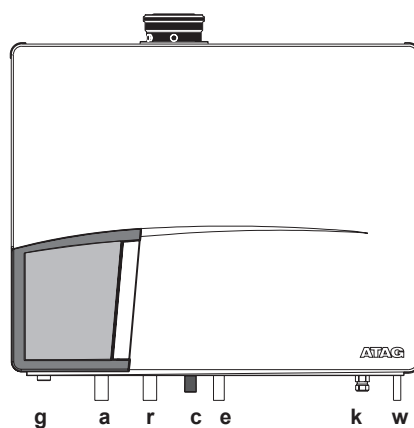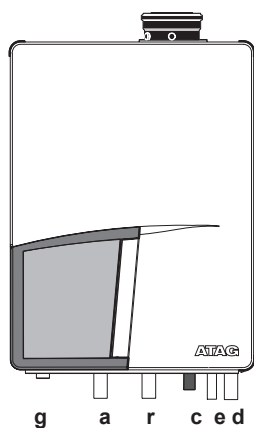
	Boiler type		ATAG QR-Serie						
			Q25CR	Q38CR	Q51CR	Q25SR	Q38SR	Q51SR	Q60SR
	Concentric flue system	mm	80/125	80/125	80/125	80/125	80/125	optional	optional
	Parallel flue system	mm	optional	optional	optional	optional	optional	2x 80	2x 80
g	Gas pipe		1/2"Rp	1/2"Rp	3/4"Rp	1/2"Rp	1/2"Rp	3/4"Rp	3/4"Rp
a	Flow pipe	mm	28	28	35	28	28	35	35
r	Return pipe	mm	28	28	35	28	28	35	35
c	Condensation / Safety valve discharge pipe	mm	24	24	24	24	24	24	24
e	Expansion pipe	mm	22	22	22	22	22		
k	Cold water pipe	mm	15	15	15				
h	Hot water pipe	mm	15	15	15				
d	Return pip DHW	mm				28	28		

Sensor resistance

In the adjacent table contains a list of values for all boiler sensors, and for the optional sensors that are contained in the accessory kits.
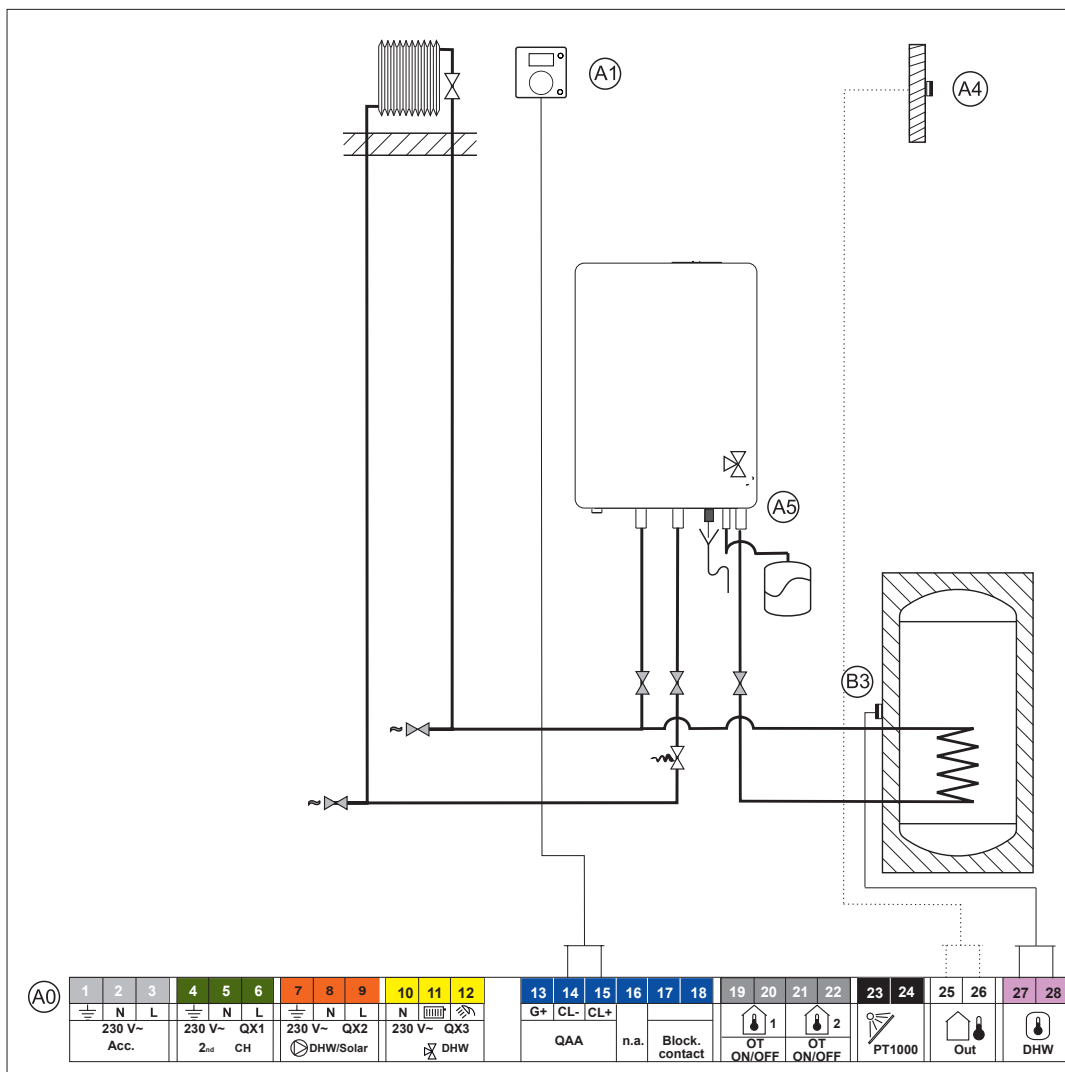
These tables show average values, since all sensors are subject to fluctuations.

When measuring resistance values, he boiler should always be switched off. Carry out measurements near to the sensor, so as to avoid deviations from the values.

Heating flow sensor Heating return sensor DHW sensor Flue gas sensor	
NTC10k (25°C)	
Temperature [°C]	Resistance [Ohm]
-10	55.047
0	32.555
10	19.873
12	18.069
14	16.447
16	14.988
18	13.674
20	12.488
22	11.417
24	10.449
26	9.573
28	8.779
30	8.059
32	7.406
34	6.811
36	6.271
38	5.779
40	5.330
42	4.921
44	4.547
46	4.205
48	3.892
50	3.605
52	3.343
54	3.102
56	2.880
58	2.677
60	2.490
62	2.318
64	2.159
66	2.013
68	1.878
70	1.753
72	1.638
74	1.531
76	1.433
78	1.341
80	1.256
82	1.178
84	1.105
86	1.037
88	974
90	915

Outdoor temperature sensor	
NTC1k (25°C)	
Temperature [°C]	Resistance [Ohm]
-10	4.574
-9	4.358
-8	4.152
-7	3.958
-6	3.774
-5	3.600
-4	3.435
-3	3.279
-2	3.131
-1	2.990
0	2.857
1	2.730
2	2.610
3	2.496
4	2.387
5	2.284
6	2.186
7	2.093
8	2.004
9	1.920
10	1.840
11	1.763
12	1.690
13	1.621
14	1.555
15	1.492
16	1.433
17	1.375
18	1.320
19	1.268
20	1.218
21	1.170
22	1.125
23	1.081
24	1.040
25	1.000
26	962
27	926
28	892
29	858
30	827
35	687
40	575

E.1.a   Radiator installation without thermostatic radiator valves

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
⏚	N	L	⏚	N	L	⏚	N	L	N	▥	⬡	G+	CL-	CL+				🌡1		🌡2		⟋		🏠🌡		🌡	
230 V~ Acc.			230 V~ QX1 2nd CH			230 V~ QX2 DHW/Solar			230 V~ QX3 DHW			QAA			n.a.	Block. contact		OT ON/OFF		OT ON/OFF		PT1000		Out		DHW	

A Boiler

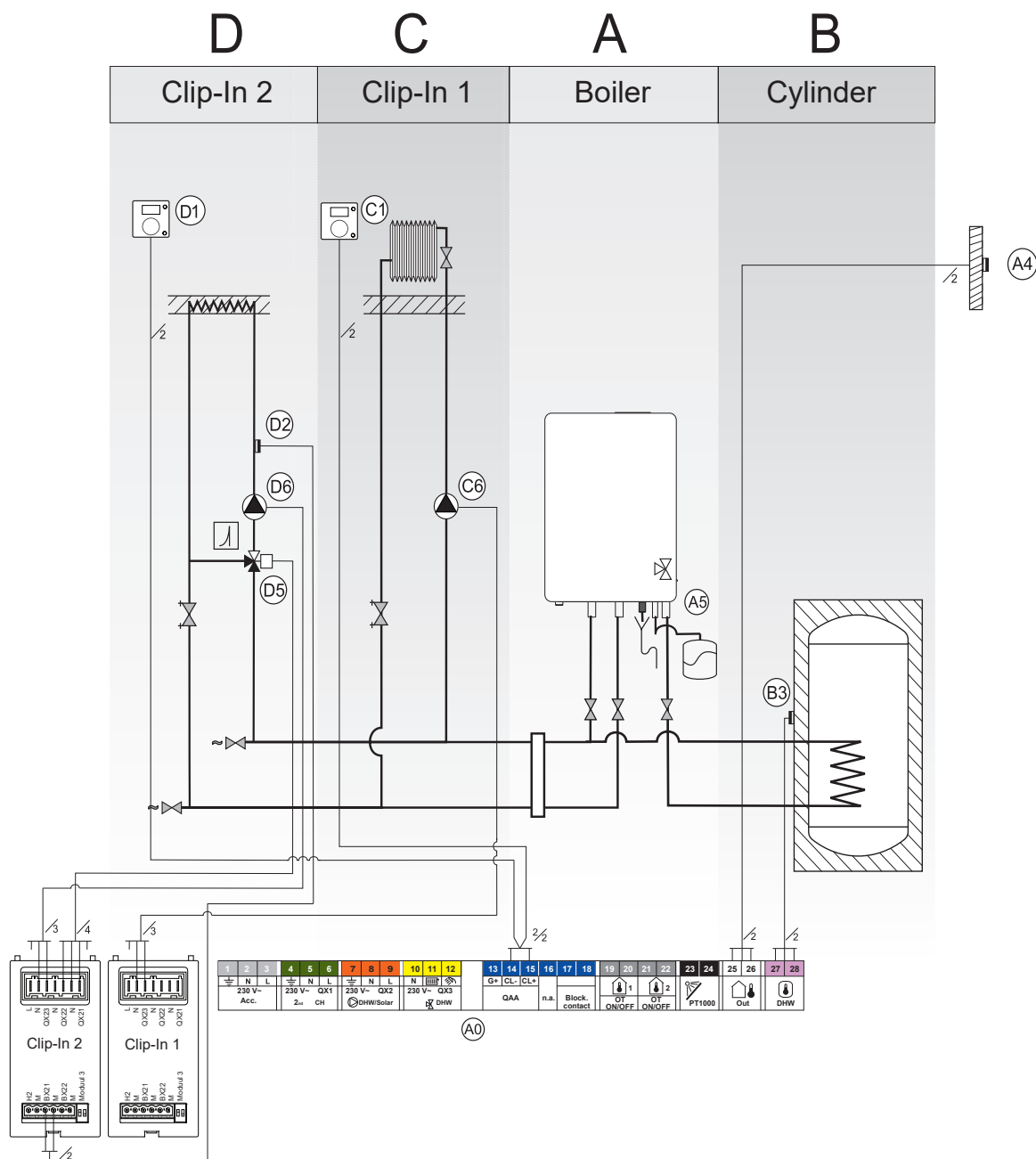| **0**	Connection terminal ATAG QR
1	QAA55* (Connection terminal Boiler: 14 / 15)
4	Outside sensor (Connection terminal Boiler: 25 / 26)
5	Three way valve (Q15SR, Q25SR, Q38SR)

B Cylinder
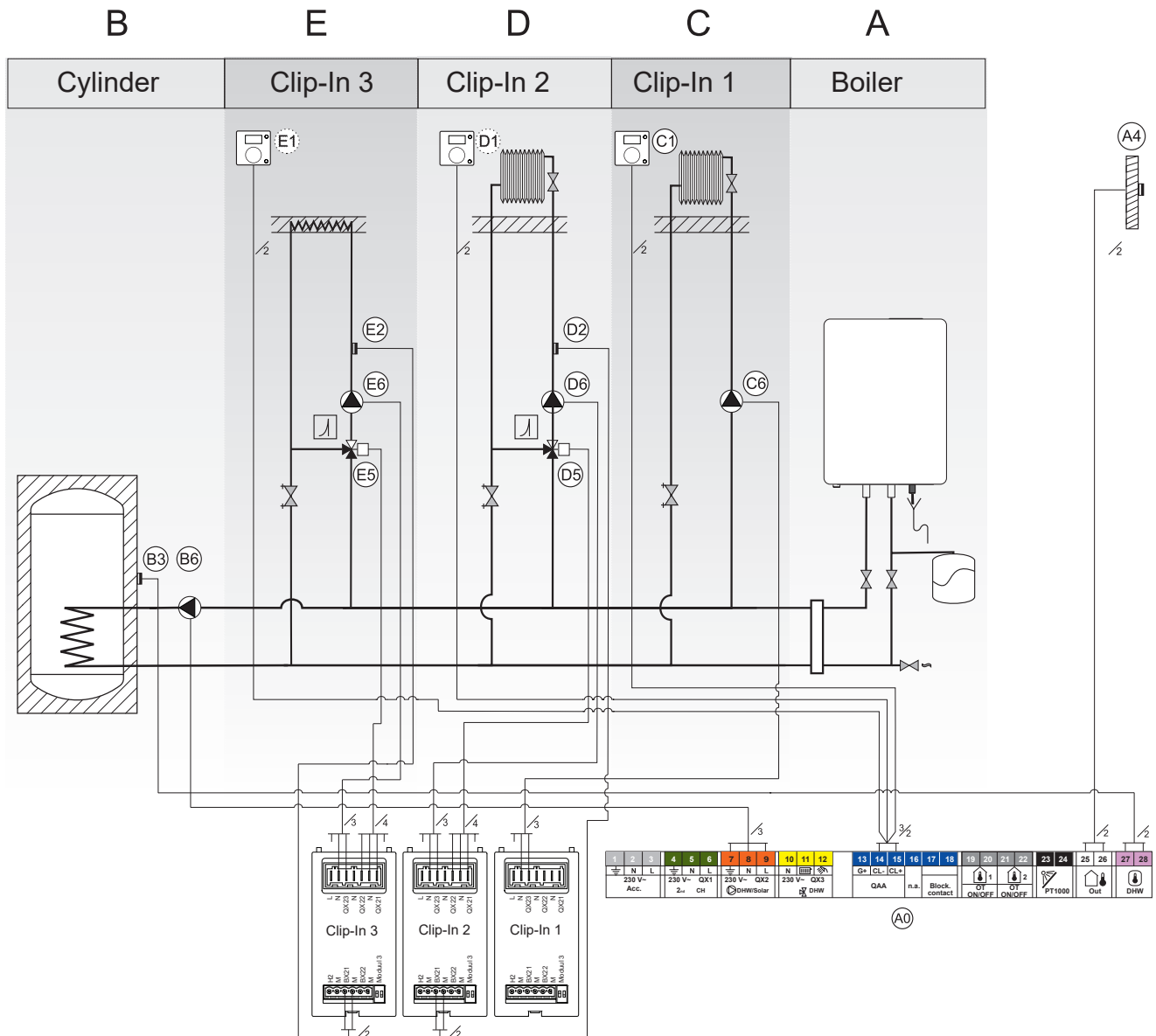
3	DHW sensor (Connection terminal Boiler: 27 / 28)

*or other third party OT / On-off thermostat

⚠️

Use alway a by pass in combination with thermostatic radiator valves.
Low loss header required for Q51SR and Q60SR.

A Boiler:

0	Connection terminal ATAG QR
4	Outside sensor (Connection terminal Boiler: 25 / 26)
5	Three way valve (Q15SR, Q25SR, Q38SR)

B Cylinder:

3	DHW sensor (Connection terminal Boiler: 27 / 28)

C Direct zone (Clip-In 1):

1	QAA55* (Connection terminal Boiler: 14 / 15)
6	Pump (Connection terminal Clip-In: QX23 / N)

D Mixing zone (Clip-In 2):

1	QAA55* (Connection terminal Boiler: 14 / 15)
2	Flow sensor (Connection terminal Clip-In: BX21 / M)
5	Three way valve (Connection terminal Clip-In: QX21 / QX22 / N)
6	Pump (Connection terminal Clip-In: QX23 / N)

*or other third party OT / On-off thermostat

E.1.c — Radiator installation with mixed and unmixed circuits

A Boiler:
  0 Connection terminal ATAG QR
  4 Outside sensor (Connection terminal Boiler: 25 / 26)
B Cylinder
  3 DHW sensor (Connection terminal Boiler: 27 / 28)
  6 Cylinder pump
C Direct zone (Clip-In 1):
  1 QAA55* (Connection terminal Boiler: 14 / 15)
  6 Pumpe (Klemleiste Clip-In 1: QX23 / N)
D Mixing zone 1 (Clip-In 2):
  1 QAA55* (Connection terminal Boiler: 14 / 15)
  2 Flow sensor (Connection terminal Clip-In 2: BX21 / M)
  5 Three way valve (Connection terminal Clip-In 2: QX21 / QX22 / N)
  6 Pump (Connection terminal Clip-In 2: QX23 / N)
E Mixing zone 2 (Clip-In 3):
  1 QAA55 (Connection terminal Boiler: 14 / 15)
  2 Flow sensor (Connection terminal Clip-In 3: BX21 / M)
  5 Three way valve (Connection terminal Clip-In 3: QX21 / QX22 / N)
  6 Pump (Connection terminal Clip-In 3: QX23 / N)
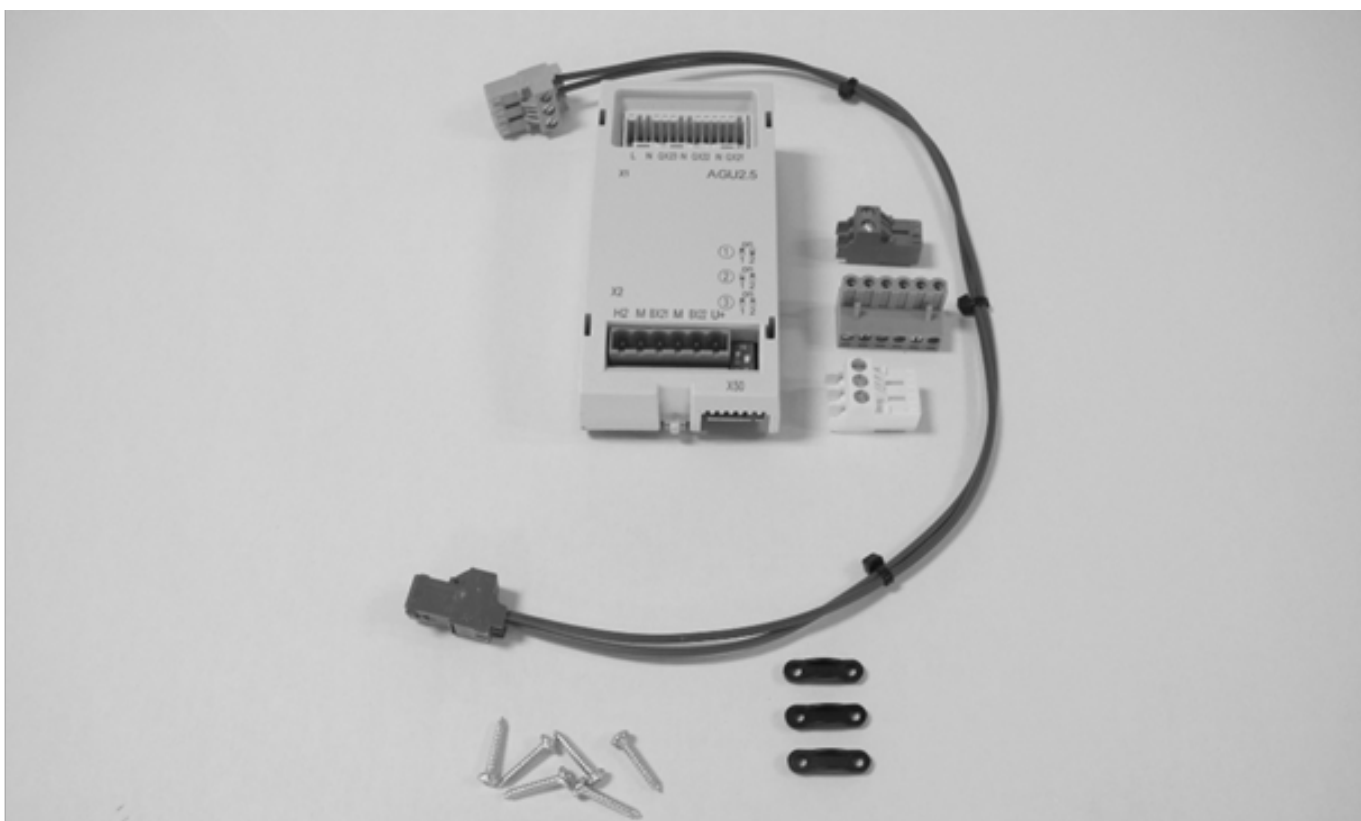
*or other third party OT / On-off thermostat
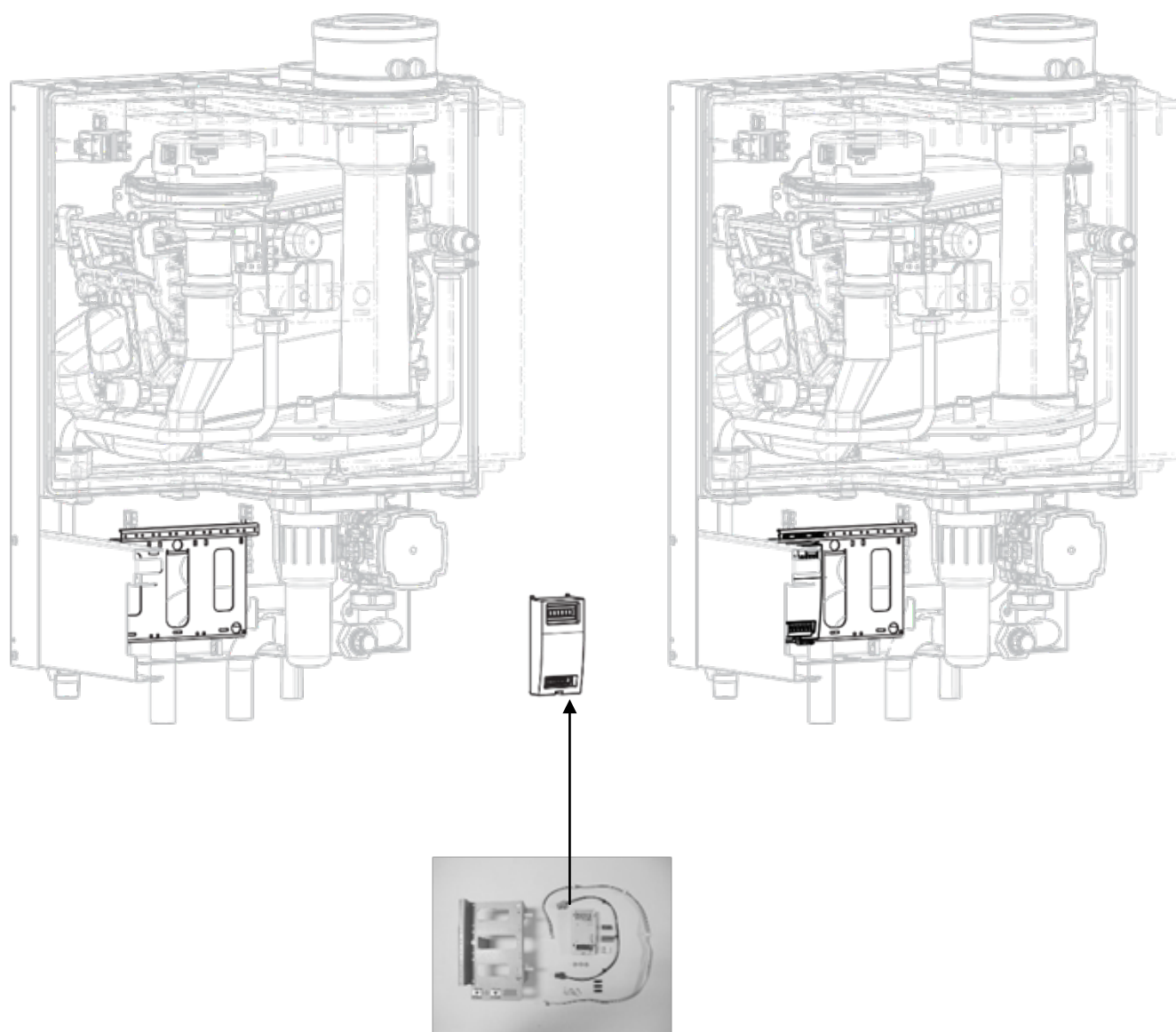
E.2.a   Contents

AA20800U - Starter Set

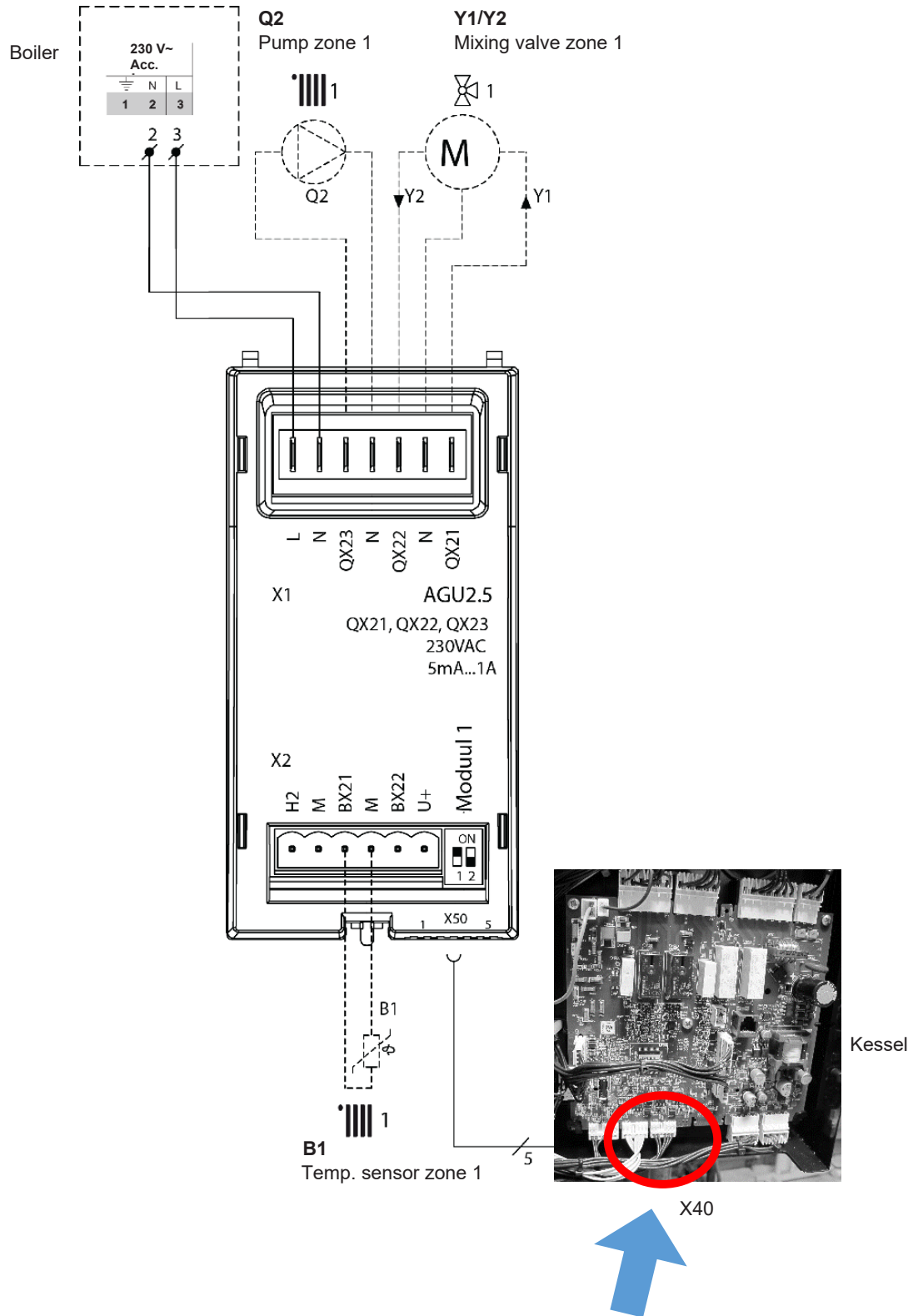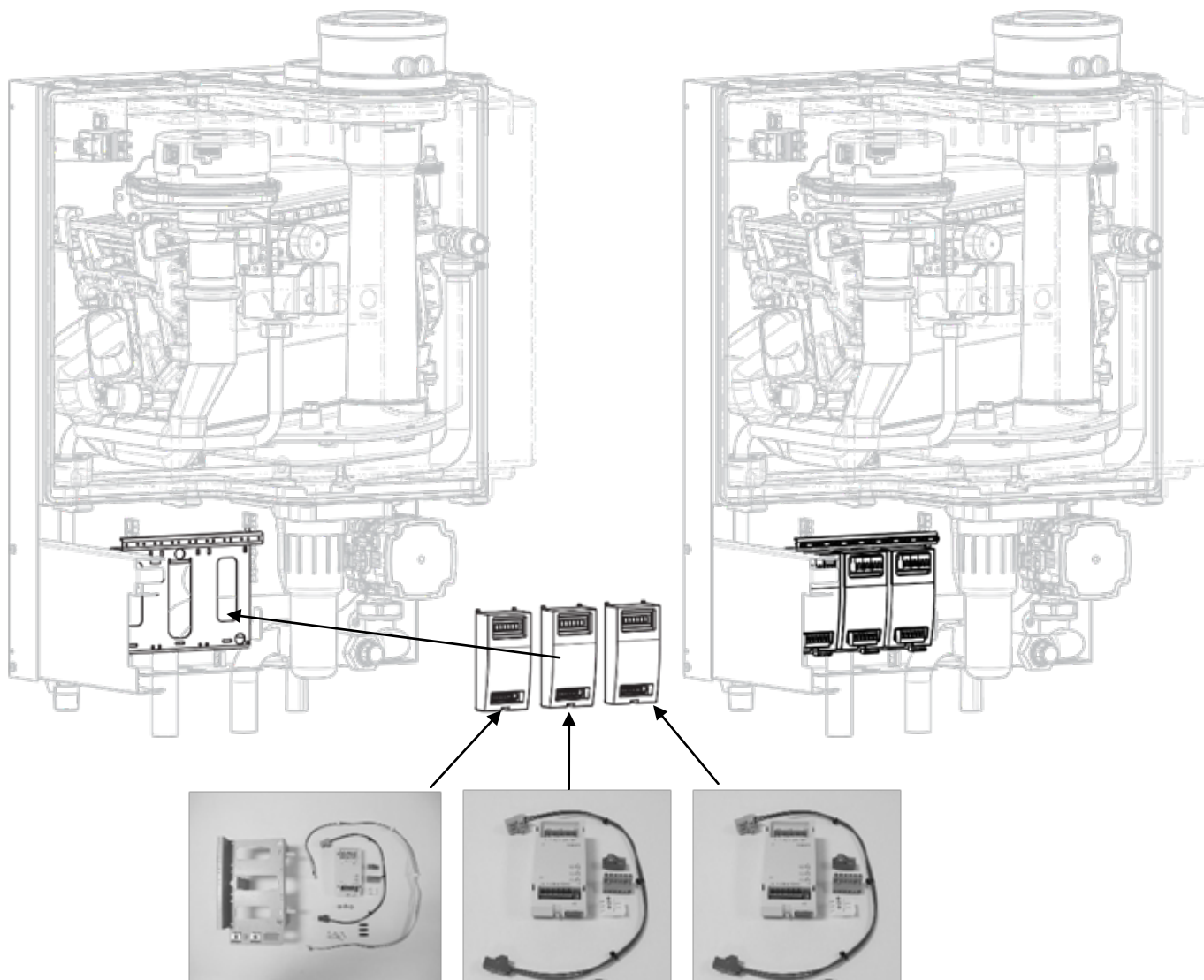### AA20900U - Expansion

Assembly

Programming Parameter

5710 : on
6020 : Heating circuit 1,

Wiring

Boiler

230 V~
Acc.

	N	L
1	2	3

2 3

Q2
Pump zone 1

IIII 1

Q2

Y1/Y2
Mixing valve zone 1

⋈ 1

M

Y2   Y1

L N QX23 N QX22 N QX21

X1   AGU2.5

QX21, QX22, QX23
230VAC
5mA...1A

X2

H2 M BX21 M BX22 U+

Moduul 1

ON
1 2

X50
1   5

B1

IIII 1

B1
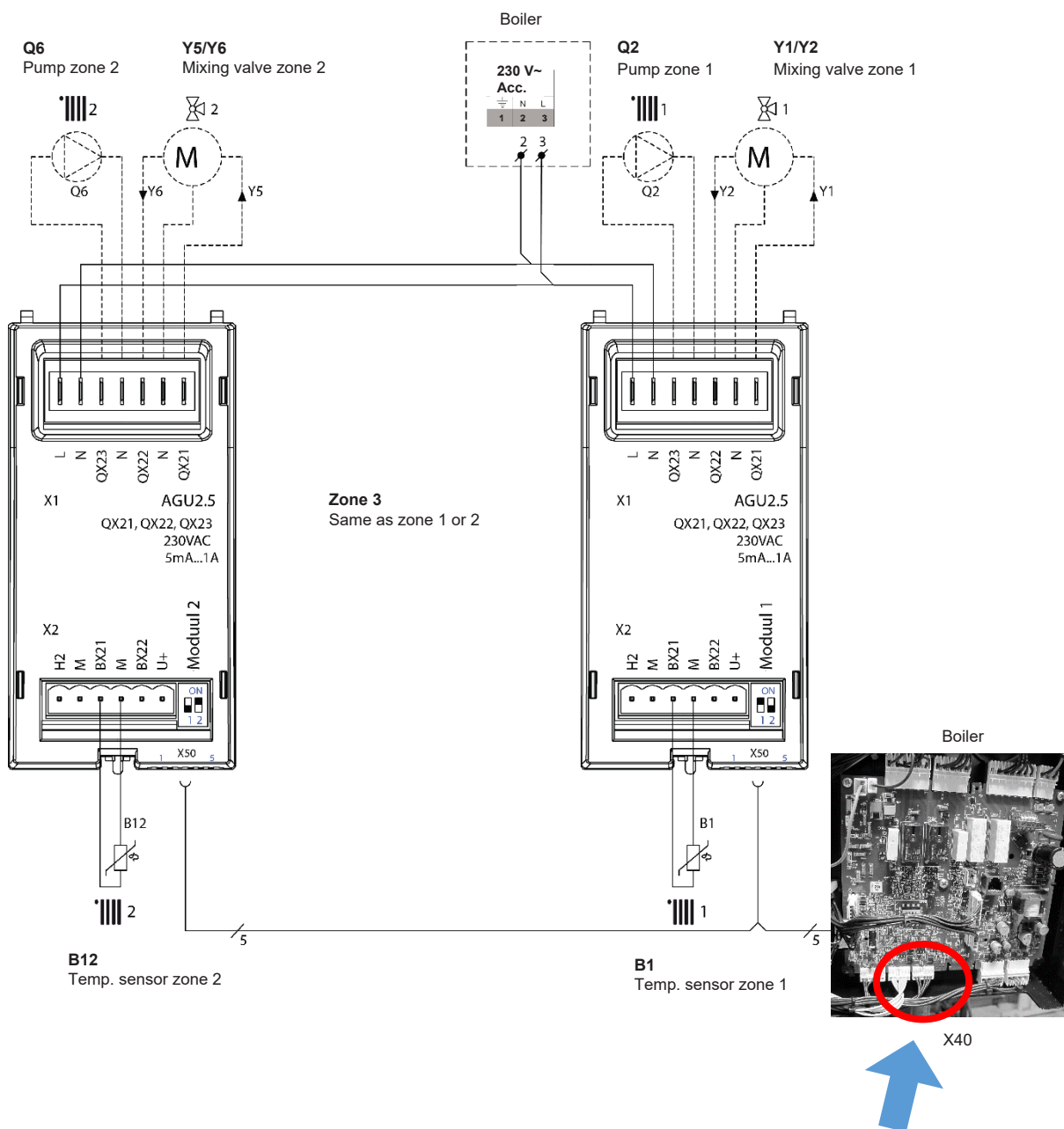Temp. sensor zone 1

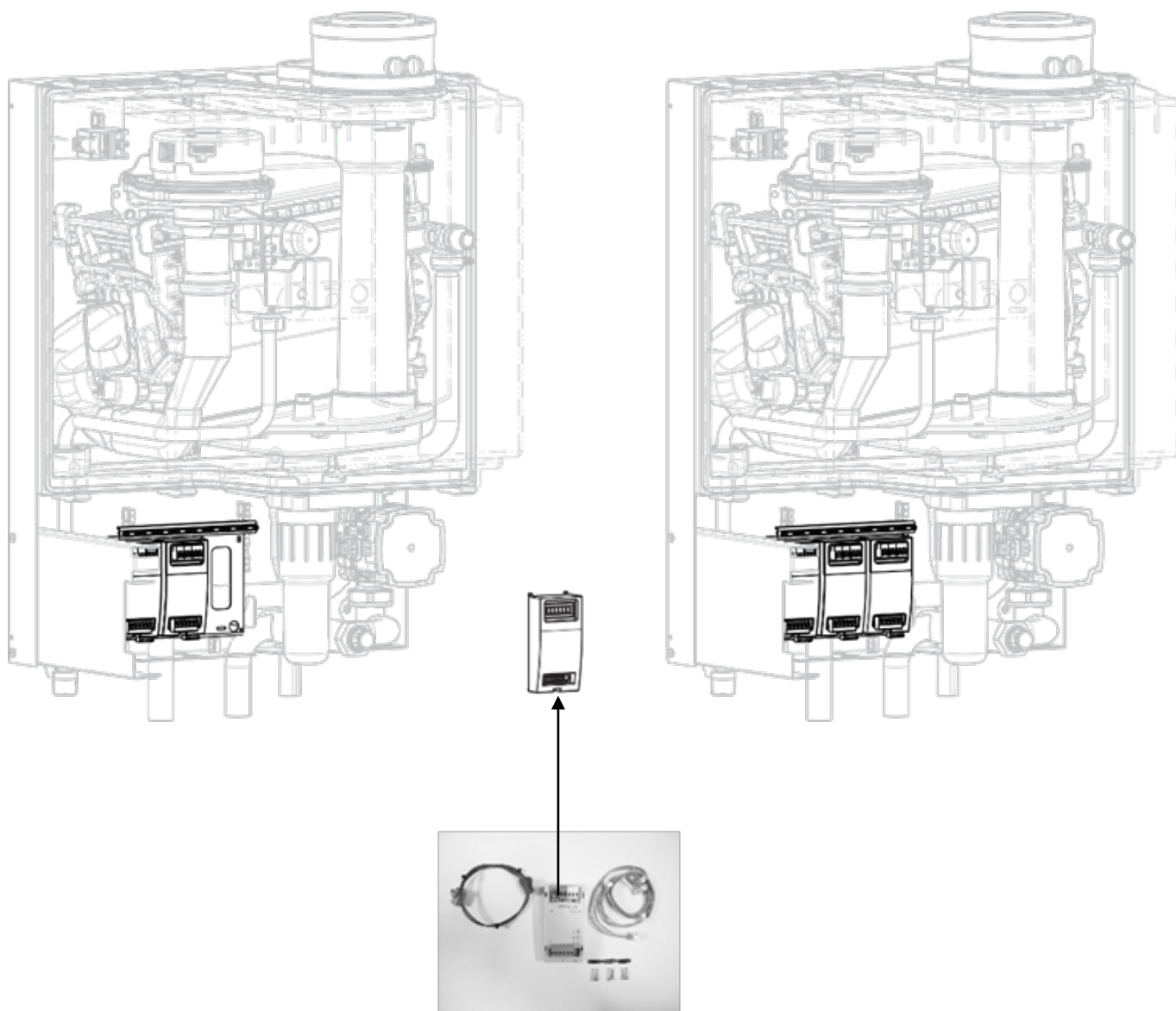5

X40

Kessel

Assembly

Programming Parameter

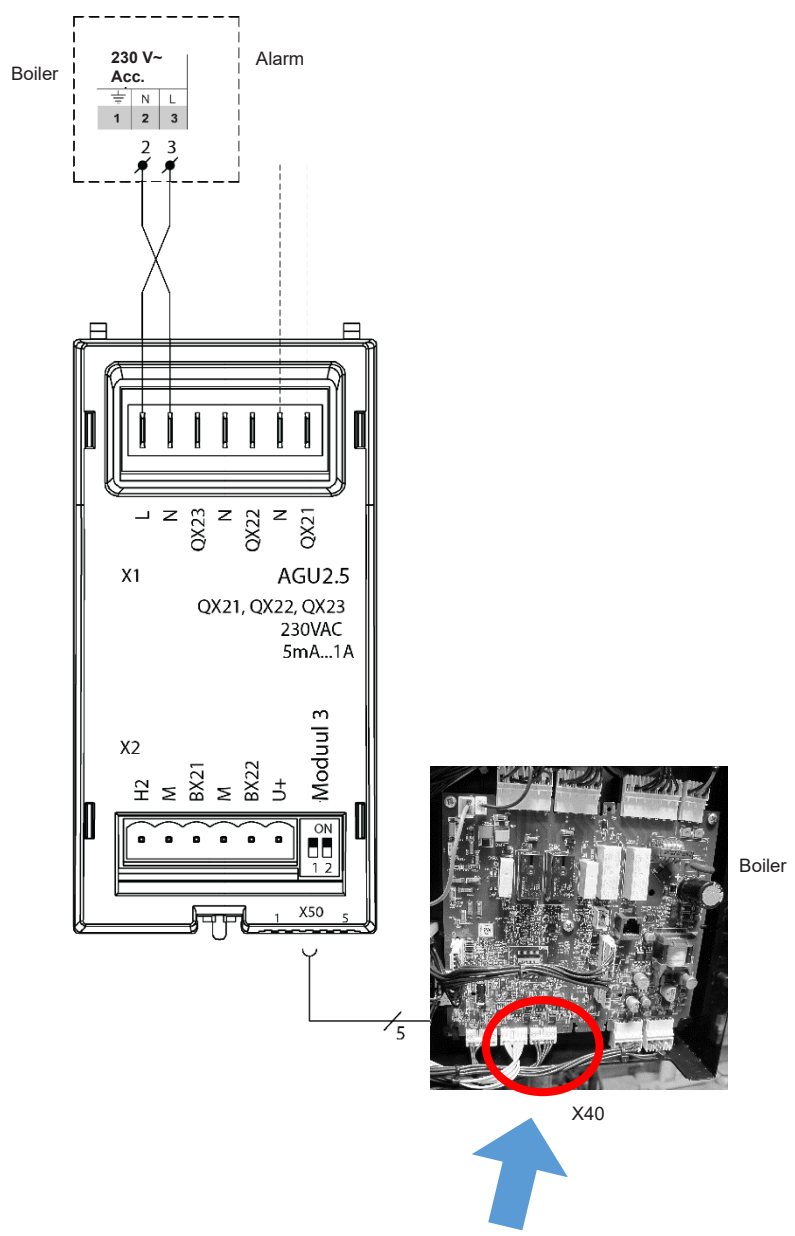**5710 : on**
5715 : on
5721 : on
6020 : Heating circuit 1
6021 : Heating circuit 2
6022 : Heating circuit 3

Wiring

Q6
Pump zone 2

Y5/Y6
Mixing valve zone 2

Boiler

Q2
Pump zone 1

Y1/Y2
Mixing valve zone 1

230 V~
Acc.

Q6   Y6   Y5

Q2   Y2   Y1

X1   AGU2.5

QX21, QX22, QX23
230VAC
5mA...1A

Zone 3
Same as zone 1 or 2

X1   AGU2.5

QX21, QX22, QX23
230VAC
5mA...1A

X2   Moduul 2

X2   Moduul 1

ON
1 2

ON
1 2

X50

X50

B12

B1

B12
Temp. sensor zone 2

B1
Temp. sensor zone 1

Boiler

X40

Assembly

Programming Parameter

6022: multifunctional
6036: K10

Wiring

CE DECLARATION OF CONFORMITY

Hereby declares ATAG Verwarming Nederland BV that,
the condensing boiler types: ATAG

Q25SR	Q25CR	Q51SR	Q51CR
Q38SR	Q38CR	Q60SR	

are in conformity with the following standards:

EU Gas Appliance Regulation	2016/426/EU	EN 15502-1:	2012
		EN 15502-2-1:	2012
		EN 60335-1:	2011
		EN 60335-2-102:	2016
		EN 298:	2013
Boiler Efficiency Directive	92/42/EEC	EN 15502-2-2:	2014
Low Voltage Directive	2014/35/EU	EN 60335-2-102:	2016
		EN 60335-1:	2011
EMC Directive	2014/30//EU	EN 60335-2-102:	2016
		EN 61000-3-2:	2013
		EN 61000-3-3:	2014
		EN 55014-1:	2011
		EN 55014-2:	2008
Ecodesign Directive	2009/125/EC	EN 15036-1:	2006
	2017/1369/EU	EN 13203-2:	2014
		EN 15502-1:	2012
		regulation (EU) 811:	2013
		regulation (EU) 813:	2013
Restriction of Hazardous Substances	2011/65/EU		

This product is designated with CE number:

CE – 0063BQ3021

and that the products are in conformity with EC type-examination certificate number E0430, as stated by KIWA Nederland BV, The Netherlands.

Date   :   17-05-2019

Signature :

Full name :   C. Berlo
                        CEO

ATAG
Verwarming

GAS BOILER SYSTEM COMMISSIONING CHECKLIST

This Commissioning Checklist is to be completed in full by the competent person who commissioned the boiler as a means of demonstrating compliance with the appropriate Building Regulations and then handed to the customer to keep for future reference.

Failure to install and commission according to the manufacturer's instructions and complete this Benchmark Commissioning Checklist will invalidate the warranty. This does not affect the customer's statutory rights.

Customer name:		Telephone number:
Address:		
Boiler make and model:		
Boiler serial number:		
Commissioned by (PRINT NAME):		Gas Safe register number:
Company name:		Telephone number:
Company address:		
		Commissioning date:

To be completed by the customer on receipt of a Building Regulations Compliance Certificate*

Building Regulations Notification Number (if applicable):

CONTROLS (tick the appropriate boxes)				
Time and temperature control to heating	Room thermostat and programmer/timer		Programmable room thermostat	
	Load/weather compensation		Optimum start control	
Time and temperature control to hot water	Cylinder thermostat and programmer/timer		Combination Boiler	
Heating zone valves		Fitted	Not required	
Hot water zone valves		Fitted	Not required	
Thermostatic radiator valves		Fitted	Not required	
Automatic bypass to system		Fitted	Not required	
Boiler interlock			Provided	

ALL SYSTEMS			
The system has been flushed and cleaned in accordance with BS7593 and boiler manufacturer's instructions		Yes	
What system cleaner was used?			
What inhibitor was used?		Quantity	litres
Has a primary water system filter been installed?		Yes	No

CENTRAL HEATING MODE measure and record:				
Gas rate	m³/hr	**OR**		ft³/hr
Burner operating pressure (if applicable)	mbar	**OR** Gas inlet pressure		mbar
Central heating flow temperature				°C
Central heating return temperature				°C

COMBINATION BOILERS ONLY			
Is the installation in a hard water area (above 200ppm)?		Yes	No
If yes, and if required by the manufacturer, has a water scale reducer been fitted?		Yes	No
What type of scale reducer has been fitted?			

DOMESTIC HOT WATER MODE Measure and Record:				
Gas rate	m³/hr	**OR**		ft³/hr
Burner operating pressure (at maximum rate)	mbar	**OR** Gas inlet pressure at maximum rate		mbar
Cold water inlet temperature				°C
Hot water has been checked at all outlets		Yes	Temperature	°C
Water flow rate				l/min

CONDENSING BOILERS ONLY		
The condensate drain has been installed in accordance with the manufacturer's instructions and/or BS5546/BS6798	Yes	

ALL INSTALLATIONS						
Record the following:	At max. rate:	CO	ppm	**AND**	CO/CO₂	Ratio
	At min. rate: (where possible)	CO	ppm	**AND**	CO/CO₂	Ratio
The heating and hot water system complies with the appropriate Building Regulations					Yes	
The boiler and associated products have been installed and commissioned in accordance with the manufacturer's instructions					Yes	
The operation of the boiler and system controls have been demonstrated to and understood by the customer					Yes	
The manufacturer's literature, including Benchmark Checklist and Service Record, has been explained and left with the customer					Yes	

Commissioning Engineer's Signature	
Customer's Signature	
(To confirm satisfactory demonstration and receipt of manufacturer's literature)	

*All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

benchmark
COLLECTIVE MARK
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

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SERVICE RECORD

It is recommended that your heating system is serviced regularly and that the appropriate Service Interval Record is completed.

Service Provider

Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions. Always use the manufacturer's specified spare part when replacing controls.

SERVICE 01
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

SERVICE 02
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

SERVICE 03
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

SERVICE 04
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

SERVICE 05
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

SERVICE 06
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

SERVICE 07
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

SERVICE 08
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

SERVICE 09
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

SERVICE 10
Date:

Engineer name:

Company name:

Telephone No:

Gas safe register No:

| Record: | At max. rate: | CO | ppm | **AND** | CO_2 % |
| | At min. rate: (Where Possible) | CO | ppm | **AND** | CO_2 % |

Comments:

Signature

*All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

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Installation & Servicing Instructions ATAG QR-Series

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AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

This renewed publication cancels all previous installation instructions. The company reserves the right to change the specifications and dimensions without prior notice.

E. & O. E.