MAXXflo EVO Lite

High efficiency condensing stainless steel storage water heater

SC15/201, SC25/201, SC35/201, SC45/201

Please read and understand these instructions before commencing installation and leave this manual with the customer for future reference.

Andrews. Built to perform.

ANDREWS WATER HEATERS

Contents

1 Safety

1.1 Important safety instructions

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

Danger
Danger to life.
Observe warnings affixed to this heater. Incorrect operation of this heater could lead to considerable damage.

Danger
Risk of poisoning:
Never use condensate as drinking water. Condensate is not suitable for consumption by people or animals. Avoid contact with skin.

Danger
This heater is not intended for use by persons under the age of 12, or persons with reduced physical, sensory or mental capabilities, lack of experience or knowledge. Only users given supervision or instruction concerning the safe operation of this heater and understand the hazards involved should be operating this appliance. Children should be supervised to ensure that they do not play with the heater.

Danger
Unauthorised conversions and modifications to this heater are not permitted, as these can put persons in danger and could cause damage to the boiler. Failure to comply with these instructions renders the warrantee for the heater void

Danger
Do not store any explosive or highly flammable materials close to the heater

Warning
Risk of burns!
Be careful when using domestic hot water. Depending on the heater settings the temperature of the hot water can rise above 65°C.

For safety reasons the discharge pipe from the safety valve must always be open so that water can escape during an emergency overheat situation.

Caution
Ensure that the heater is regularly serviced. Contact a qualified installer/engineer or arrange a maintenance contract for the servicing of the heater.

Caution
Secure against unintentional switch on. When the DHW tank is empty, ensure that the heater cannot be switched on unintentionally.

Caution If there is a danger of freezing do not shut the gas supply or power off to the heater. This will allow the frost protection systems of the heater to operate provided the heater is not in a fault condition.

1.2 Recommendations and notices

1.2.1 Condensate trap

To ensure continued efficient operation of the heater it is recommended that the condensate outlet is checked and serviced at regular intervals. The frequency of servicing will depend upon the particular installation and usage but in every case a maximum of twelve months should be allowed between service inspections.

The condensate outlet shall not be modified or blocked. It is recommended that as part of the regular maintenance the condensate systems is examined, cleaned and the condensate trap on the side of the heater is emptied and cleaned. The trap can be examined by unscrewing by hand the bowl at the bottom of the trap. See illustration

1.2.2 Heater installation and Maintenance

This heater has been designed for use with G20 and G31 gases and is manufactured to give an efficient, safe and long service life. To ensure continued trouble-free operation of this heater at maximum efficiency, it is essential that correct installation, commissioning, operation and service procedures are carried out strictly in accordance with the instructions given in the “Installation & Maintenance Manual” supplied separately to this guide.

Only original parts and accessories from the manufacturer may be used on this heater. Using non-approved parts may compromise the safety of the heater and invalidate any warranty.

1.2.3 Regulations and standards

It is the law that all gas heaters are installed by a competent person in accordance with the regulations. Failure to install or maintain heaters correctly could lead to prosecution.

It is in your own interest, and that of safety, to ensure that the law is complied with. The installation of the Heater MUST also be in accordance with the current wiring regulations, the Local building regulations, building standards, the bye laws of the local water undertaking, any relevant requirements of the local authority.

A detailed guide to the Installation and maintenance of this heater is supplied separately (Installation and Maintenance Manual) and this is intended for use by the specialist commercial installers and service engineers.

1.2.4 Frost protection

This heater is fitted with an automatic Frost Protection system. Provided there is electrical power, gas is connected and the heater is not in a lockout condition, this system will be effective in preventing damage to the heater caused by frozen water. This protection will be active even when the controls are in the standby operation mode.

If the temperature of the Domestic Hot Water tank should fall below 5^{O}C heat engine(s) will operate to bring the DHW tank temperature up to 6^{O}C before turning off again.

If the temperature of the internal flow pipework (heat engine) was to drop to 3^{O}C the heat engine(s) will operate until the temperature registered by the heat engine return sensor reaches 16^{O}C. This will also heat up the tank temperature to around 16^{O}C

1.2.5 Nominal capacity

The capacity in litres of the in-built DHW tank is given in this table:-

Tank size	200 litres
Models	SC 15/201 SC 25/201 SC 35/201 SC 45/201

2 Introduction to the heater controls

2.1 The Graphical User Interface (GUI)

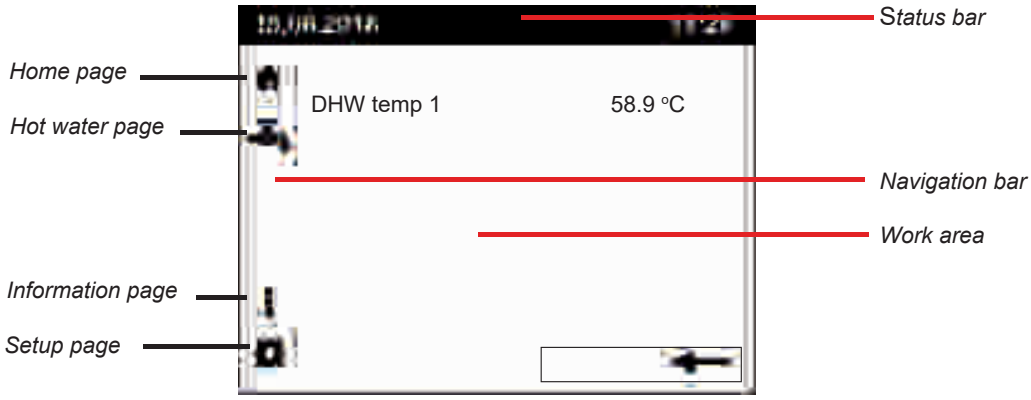
1 Control knob (press to enter)

2 Reset switch (under plastic cover)

3 Graphical User Interface

2.1.1 GUI Basics

The control knob (1) is used to operate the GUI. The display is organised into a navigation bar, status bar, and work area.



The water heater is operated by rotating (1) to move the selector over the screen then pushing (1) to select the item. When selected the item will be displayed as inverse and can then be changed by rotating (1) and the change is confirmed by pushing (1) (enter).

If the item was selected by mistake, take your hand away from (1) (do not push to enter).Wait for 5 seconds and the item will de-select and revert to its previous value.

In order to return to the previous screen select the back “arrow” or “back” text in the bottom right corner of the screen at any time.

2.2 Navigate and set using the control knob

Operating objects may have three display states:

	Not selected: The operating object is displayed normally, black on white background.
	Preselected: The operating object is framed.
	Selected: The operating object is inverted with white on black background.

To go to the navigation bar:

	Turn control knob. • The preselection is displayed with a frame around the symbol. • The related topic page is displayed in the work area.
	Press control knob. • The symbol is selected on the navigation bar and is displayed inverted. • The first adjustable operating object of the work area is preselected.
	Go back using the Back arrow on the navigation bar. • The symbol in the navigation bar is once again preselected.

To set values in the work area:

	Turn control knob. • The preselection is displayed with a frame around the operating object
	Press control knob. • The operating object is selected and is displayed inverted. • The lower level is displayed if the operating object consists of multiple levels (e.g. Time program).
	Turn control knob. Set value.
	Press control knob. Confirm the set value. • The set operating object is once again preselected.
	Continue navigation • To other pages, for selected and inverted displayed page titles.
Back	“Back” goes a level higher within the work area.
	Back arrow to return to navigation bar.

Operating tips:

Editing time-out	5 seconds	A changed setting reverts to the original state if not confirmed within this period.
Long button pressure	> 3 seconds	A long press of the knob on any expert view returns to the “Expert view start page” (diagnostics page).
Locking time-out	1 minute	Certain plant states are displayed in the foreground, e.g. Special operations page. However, users are still able to go to any page and set values. The foreground page returns after this period without operator intervention.
Operating time-out	8 minutes	The display switches automatically after this period without operation to the start page on the operator unit or display in standby on the room unit.

2.3 Display symbol meanings

The following symbols are located on the navigation bar (left, vertical):

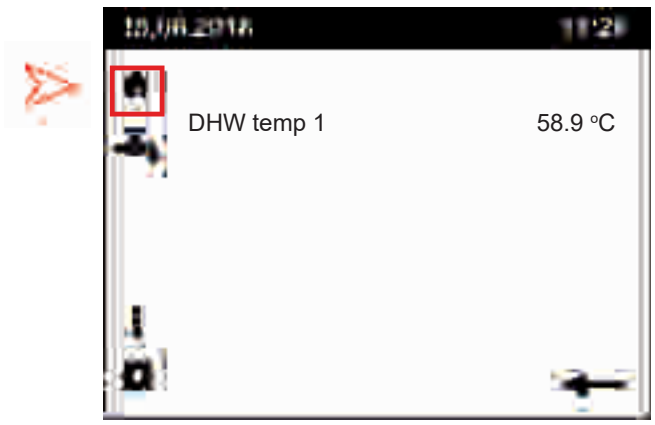
Accessible for end-user and experts:	
	Start page: Heater status. Access to system operation mode.
	DHW page. Access to temperature and time clock settings
	Info pages: • Messages (errors, events) • Heater information
	Service/setting pages: • Setting options for domestic hot water system • Operate special operations (e.g. for maintenance work) • Login in expert view (see note below)
Available in addition for experts:	
	Diagnostic pages: Analyse and test heater and system.
	Adjust/repair pages: • Adapt parameters in ‘Complete parameter list’

The following symbols can be displayed on the status bar (top, horizontal):

	Symbol ‘Alarm’ indicates a system error.
	Symbol ‘Maintenance/Special operations’ indicates the presence of a maintenance message or special operation feedback.
	Symbol ‘Event’ indicates an event message from the system.
	‘Hand’ symbol The ‘Hand’ symbol is displayed if the heater operation mode is being held “off” because hot water operation mode is set to off in the Domestic hot water page.
12:00	The device clock is synchronized with the clock from the connected controller.
	Symbol ‘User’ and the number to the right (access level 1 to 3) indicate which user level is currently active. • None: User • 1: Commissioning engineer • 2: Heating engineer • 3: OEM
	Symbol ‘Producer’ indicates the water heater burner is currently operating and a flame has been successfully detected.

3.0 User Operation

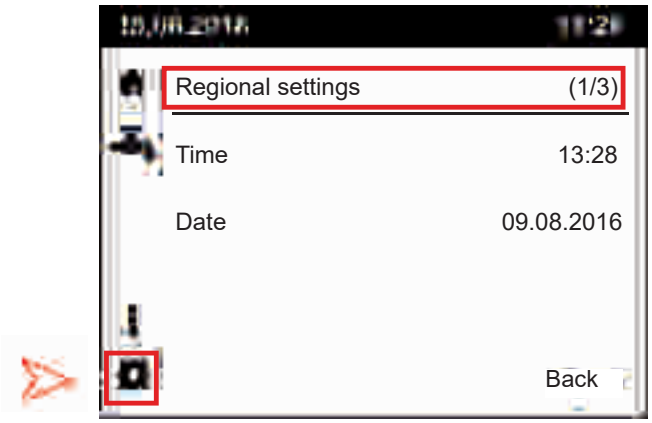
3.1 The home page



The home page for the heater GUI unit displays the most important information on the water heater and system operation mode. There are no settings that can be applied whilst in this screen.

3.2 Setting the time and date

To set the current time and date proceed with the following steps:



To set the time:

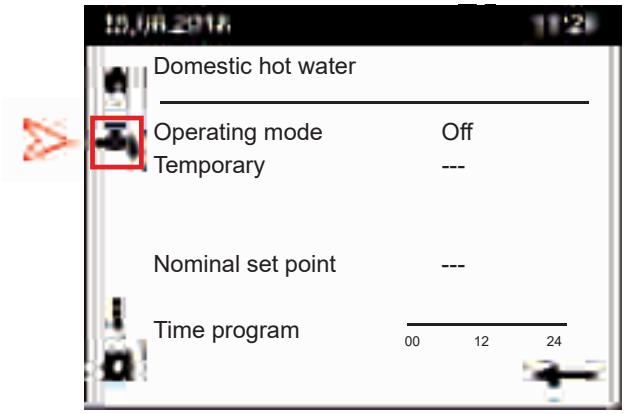
1. Rotate ① until the settings page symbol is highlighted then press enter "Regional settings (1/3)" should already be preselected.
2. Rotate ① to select the time field then press enter ①
3. Rotate ① and enter a new hour value.
4. Rotate ① and enter a new minute value.

To set the date:

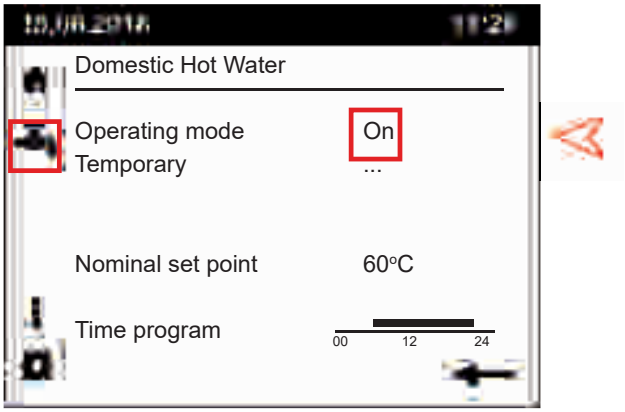
5. Rotate ① to select the date field then press enter ①
6. Rotate ① and enter a new date, month and year after each item is set.
7. Rotate ① for additional regional settings or exit regional settings with "Back".

8. It is also possible to adjust the dates set for the start and end of summer time, for the purposes of automatic clock adjustment.

3.3 Setting DHW Operating mode

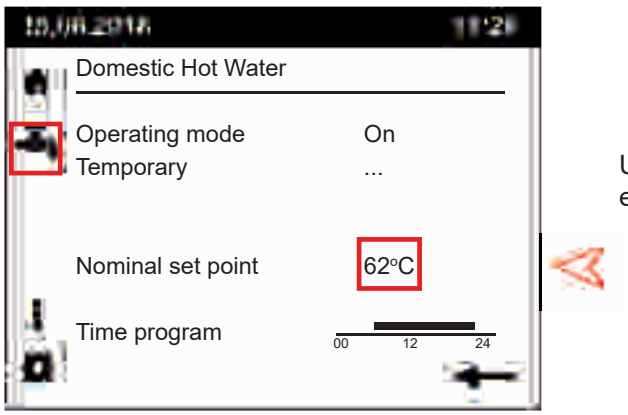


Using ① select the Domestic hot water page and press enter to view.



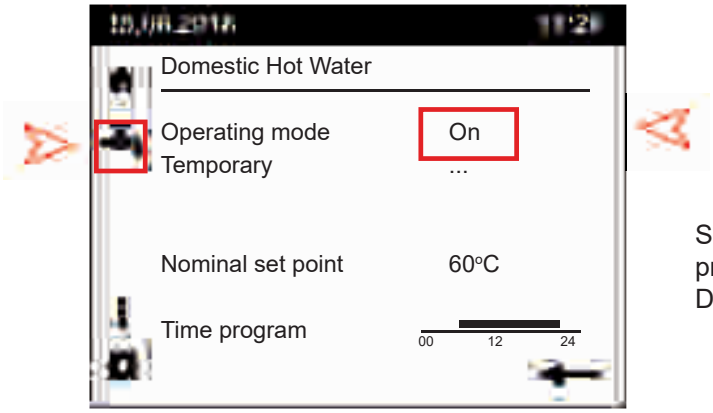
Rotate ① to select the operating mode, then press enter to select and change the mode to “On”.

3.4 Setting DHW temperature

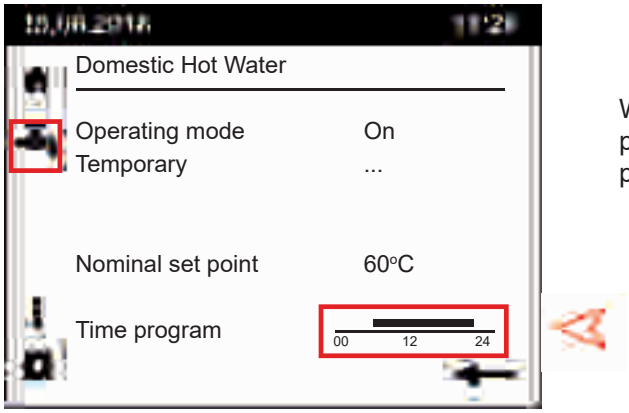


Using ① to highlight the “Nominal set point” press enter and enter a new value and then enter within 3 seconds to confirm.

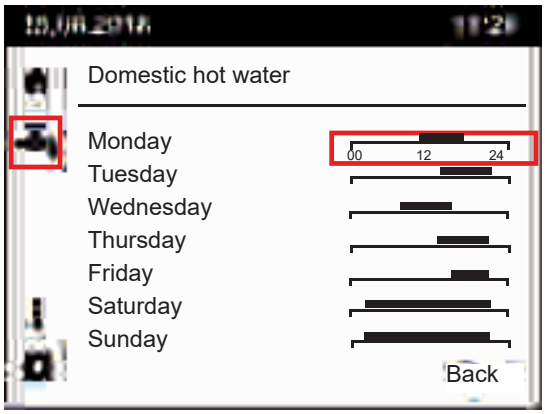
3.5 Setting DHW heating time program



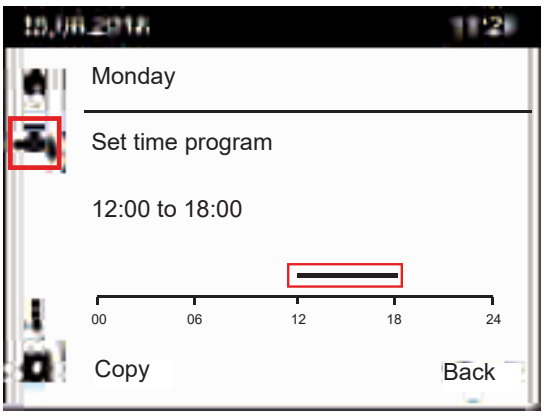
Select the Domestic Hot Water (DHW) page by rotating and pressing ① . Toggle to the operating mode and ensure that Domestic Hot Water is turned “On”.



With the DHW page selected, rotate ① to highlight the time program field, then press enter to open the time clock setting page.



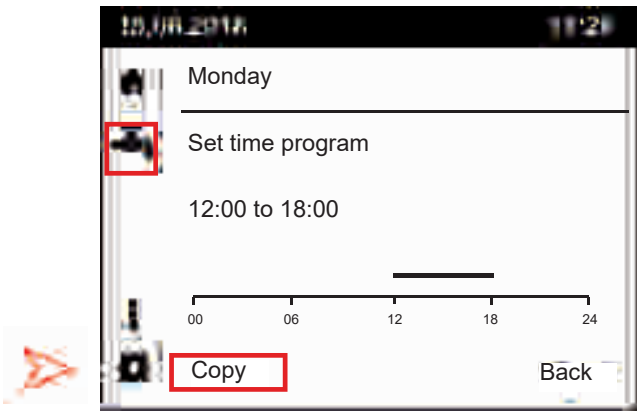
Select the day field to change the times of that day. Press ① to enter screen to set times for that day.



Use ① to select and set existing time band.

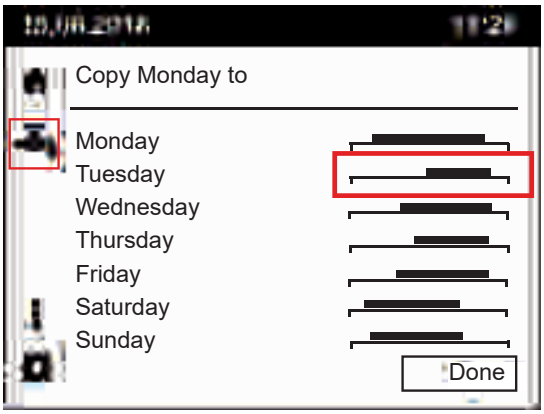
Scroll to the beginning (00 hours) to insert another time band (up to a total of 3 time bands per day can be set).

To delete a time band use ① to move the start and end times of the band to be the same then press enter.

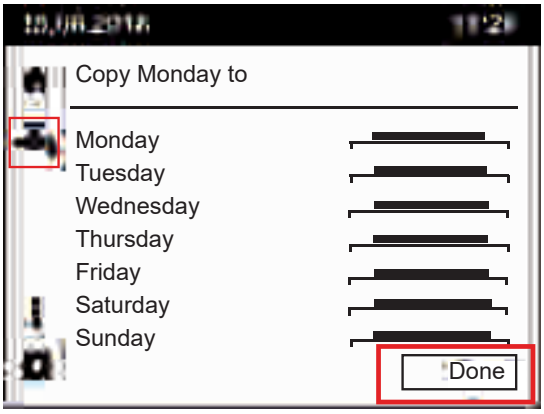


The time settings of any day can be copied and applied to other days in the weekly schedule.

After setting up the times of the day required to be copied, select copy in order to move to the “copy to screen”.

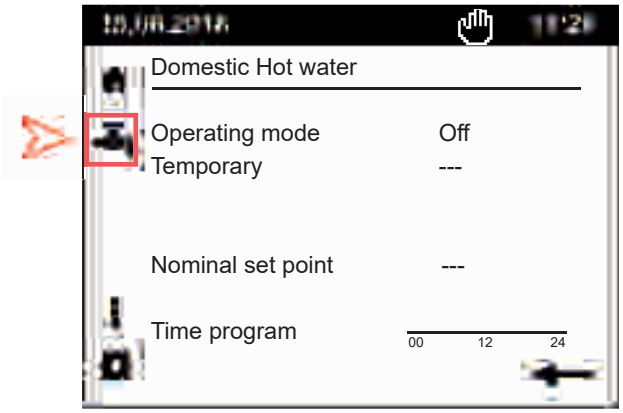


Using the ①select the day to be copied to and press enter. Repeat this operation as required.



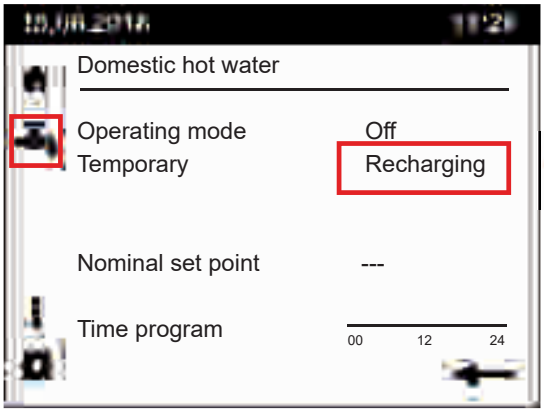
Once times have been copied select “Done “ to return to Domestic hot water page.

3.6 Temporary DHW operation function



Outside of the programmed operation times for water heating, the operation of the water heater can be turned on for a single occasion where Hot Water will be heated to the nominal set point. The heater control returns to normal operation using pre-settings as soon as the hot water reaches set point.

Using ① enter the Domestic Hot Water page. Move the indicator over the “Temporary” field and press enter to highlight the field.



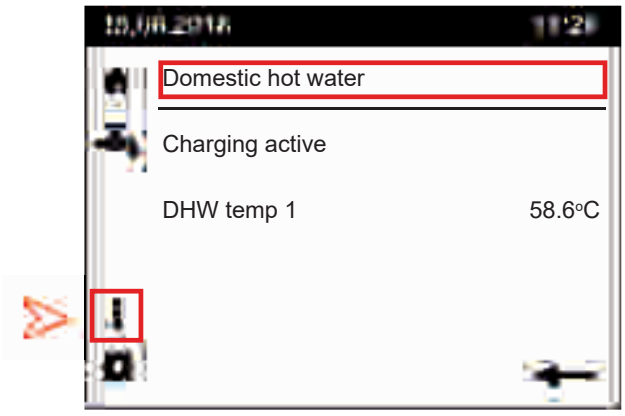
Change the “Temporary” field from “---” to “Recharging” and press enter to activate Temporary operation mode.

Heater operation is now active and will recharge the DHW tank water to the nominal set point previously programmed.

Once this function has been started it can only be stopped by changing the operating mode to “on” then back to “off”.

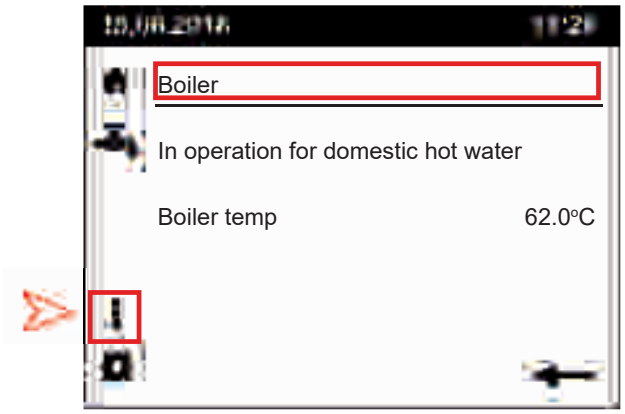
It is not possible to view or change the nominal set point once this operation has been started. If you have any doubts as to the current hot water set point, cancel the operation (as described above) and start the heater using the operation mode to view and set the nominal set point.

3.7 Information pages



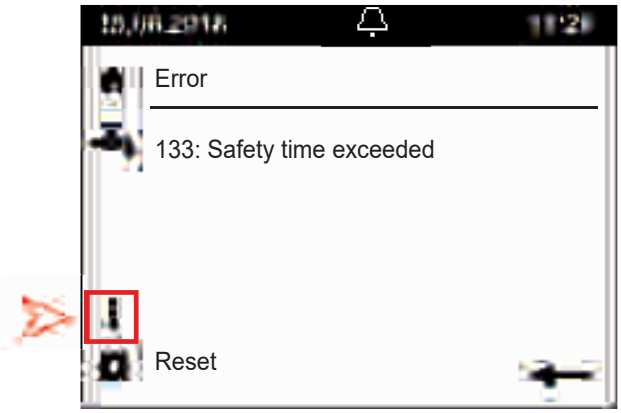
Information regarding the operation state of the water heater can be viewed by selecting “ i ” pages and pressing enter.

In this example the screen is showing the status of DHW and the tank temperature:-



To view additional info pages rotate ①

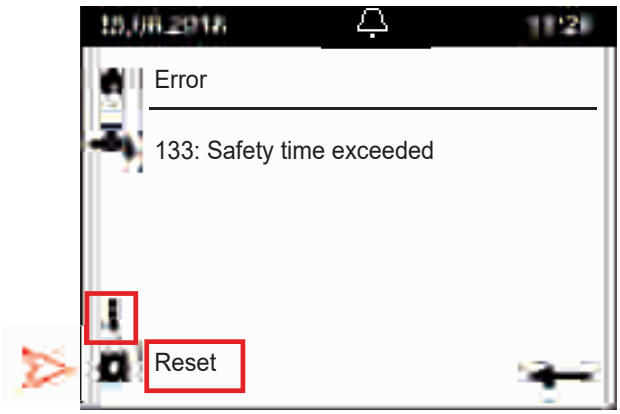
In this example the screen is showing the status of DHW and the temperature of the heated water entering the top of the hot water tank from the heat engine.



If the heater controls are unable to operate the gas burner or it detects a undesirable condition, the controls will put the heater into a “lockout” mode and the heater may be prevented from operating again, until manually reset.

If the error detected is a minor one, the controls will allow the heater to operate normally, but in either case an error message symbol will be displayed in the status bar and a text explanation will be displayed on the home screen and in the Information menu. Any important messages affecting the operation of the heater should be displayed instead of the normal “Home” screen.

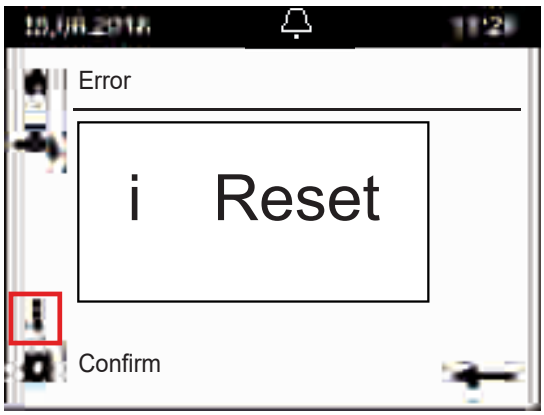
Depending on the type of error, this may need to be cleared before the heater will function again. Viewing the info page (see 3.7) will provide greater detail of the error (refer to the table in 3.8.1 for error codes).



In this example the heater has gone into a lockout mode, because the gas supply has been interrupted. The resolution would be to re-establish the gas supply to the heater and then reset the error to restart heater operation again (see below).

To RESET an error message use ① to select Reset and press enter. Within 3 seconds press enter again to confirm the Reset action. Provided the error condition has been corrected the heater will run through the ignition sequence again.

A Lockout condition should not be repeatedly reset. If the condition persists then a qualified repair engineer should be consulted.



When a reset action has been applied a message is displayed across the screen for about one second (see example opposite).

Further diagnostic codes and the history of the last 20 error messages can be found by logging in as “Engineer” and accessing the “Error” menu. For details on how to do this please refer to section 4.2 of this manual.

3.8.1 Error codes

Error Code	Error Code Description	Diag. Code	Notes
20	Boiler temperature 1, sensor error	Other	Water heater flow sensor (B2) is outside normal limits
		439	Water heater flow sensor (B2) is short-circuit. Check connection for possible contamination or faulty sensor.
		440	Water heater flow sensor (B2) is open-circuit. Check connection for possible contamination or faulty sensor.
28	Flue gas temperature, sensor error	539 543	Flue gas sensor (B8) is short-circuit. Check connection for possible contamination or faulty sensor.
		540 544	Flue gas sensor (B8) is open-circuit. Check connection for possible contamination or faulty sensor.
40	Return temperature 1, sensor error	Other	Water heater return sensor (B7) is outside normal limits
		441	Water heater return sensor (B7) is short-circuit
		442	Water heater return sensor (B7) is open-circuit
50	DHW temperature 1, sensor error	55	Check connections or replace faulty DHW tank sensor (B3)
57	DHW circulating sensor fault	58	Check connections and operation of the strap on return pipe sensor (B39) connected through onto the AGU2.5 expansion module
81	LPB short-circuit or no power supply	67	Check external connections onto the LPB terminals are the not shorted and the correct polarity. Inspect connections from the GUI to the Control PCB.
82	LPB address collision	103	LPB address duplicated on another Siemens controlled appliance. Check addresses of all Siemens controlled appliances via parameter 6600
83	BSB short circuit	595	No BSB communication or wires shorted - Check operation of GUI or OZW672 (if fitted)
84	BSB address collision	104	Two appliances connected through BSB (e.g. OZW672) have the same allocation address. Change one of the appliances address via parameter 6600
98	Extension module 1, error	605	Indicates that an expansion module can no longer be “seen” by the controls. To clear this message perform a “Store sensors” (parameter 6200) command, to perform a controls handshake with all connected sensors and ancillaries NB: When applying power to the heater, this fault message may appear briefly, but should self clear within 5 minutes. If message persists perform a “Store sensors” command
100	More than one clock time master	105	Only one device should be set as the time master, check on the GUI (parameter 6640) and any OZW672 connected (in case of connection to an OZW672, this device should be the master)
102	Clock master without power reserve	106	The control PCB battery backup for the time clock has been depleted following the restoration of power to the heater. If this message has not cleared within 10 minutes of power being turned on, turn the power off, wait 10 seconds and turn the power on again. This message does not prevent the operation of the heater in any way.
105	Maintenance message	87	Item requiring attention but not preventing appliance operation (e.g. 12 Month service due). Check details of message on the appliance Front GUI screen.

Error Code	Error Code Description	Diag. Code	Notes
110	SLT Lockout	306 431 432 433 434 435 436 756	Electronic temperature limits exceeded. General overheating issue. Check for pump operation, trapped air and heat exchanger blockages. Monitor temperatures of system to establish problem area.
		429 818	Safe reset of the error sub code 433 (see above) has not been met. Allow the water heater to cool further before resetting.
		305 412 550 551 754	Mechanical overheat protection circuit is open circuit (connection X18 on control PCB). Check connector is fully inserted
		426 437 815	Flow temperature heat up gradient exceeded. Check pump operation and presence of trapped air in the heat exchanger. Flow through heat exchanger may be restricted.
		438 817	Maximum Delta T of system exceeded. Check pump operation and presence of trapped air in the heat exchanger. Flow through heat exchanger may be restricted.
		428	Maximum Delta T of system exceeded. Initial starting of the pump before the burner is operated, can cause this error. If accompanied by code 429 within the same minute, this error can be disregarded.
		429	Safe reset of the error sub code 428 /438 (see above). Allow the water heater to cool further before resetting.
		427 816	Safe reset criteria has not been met. Allow the water heater to cool further before resetting.
		420 421 819 820	Return temperature greater than flow temperature. Check that the flow and return sensors are operating correctly
		419 430 813 814	Flow temperature limit exceeded. Check for overheating issues and flow sensor (B2) performance.
		809 810 422 423	Flow temperature not plausible - Reading less than 0^{O}C or greater than 124^{O}C . Check flow sensor (B2) and replace if necessary.
		425 812	Return temperature limit exceeded. Check for overheating issues and return sensor (B7) performance.
		424 811	Return temperature not plausible - Reading less than 0^{O}C or greater than 124^{O}C . Check return sensor (B7) and replace if necessary.
111	Shutdown limit thermostat	264	Heat exchanger temperatures have been exceeded. Investigate flow rates and controls to determine causes of temporary fault code.
125	Maximum boiler temperature exceeded	286 500 740	Temperature supervision lockout. Check pump, shutoff valves, burner and flow rates before resetting
		501	Temperature has not increased at flow sensor after burner start. Check flow sensor is correctly clipped to pipe work.
		502	Temperature has not increased at return sensor after burner start. Check return sensor is correctly clipped to pipe work.
126	DHW charging temperature not reached	72	Charging temperature not achieved within parameterised time scale. Check operation and heat up times for heater
127	DHW legionella temperature not reached	73	Check operation of legionella function and DHW system. Legionella setpoint has not been achieved within 48 hours of the legionella function operating. When using a secondary return system and sensor, do not set the legionella function setpoint too high, as the heat losses of the hot water pipework may not permit this setpoint to be achieved at the return point before the heater.

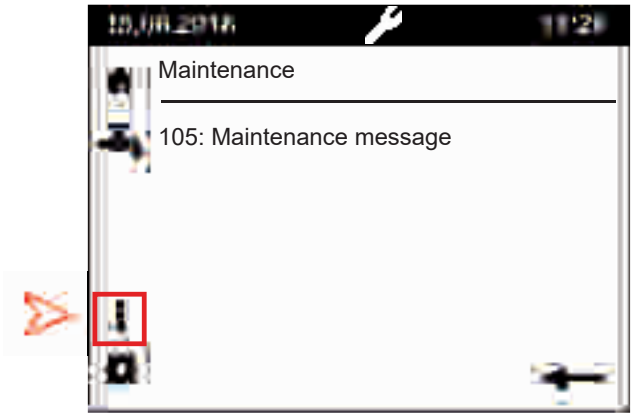
Error Code	Error Code Description	Diag. Code	Notes
128	Loss of flame during operation	244 625	Count of loss-of-flame incidents exceeded (a maximum of 15 loss of flame incidents are permitted in a 24 hour period)
		394 834	Flame lost in operation during safety time, before the start of the modulation phase. Check the burner CO^2 is set correctly. Check operation and condition of the ionisation electrode.
		854	Flame lost in operation within the first 7 seconds after safety time. Check the burner CO^2 is set correctly. Check operation and condition of the ionisation electrode.
		253	Flame lost in modulation phase
130	Flue gas temperature too high	Any	Check causes of high temperatures before operating Appliance. Inspect inside of heat exchanger for dirt build up. Check CO_2 levels at min and max output.
133	Safety time exceeded	254 395 755	Records individual ignition failures and the times they have occurred. Check gas supply, spark electrode, spark generator, Ionisation probe, burner CO^2 setting and flue system
		245 625 757	A total of 5 unsuccessful ignition attempts has occurred within a 24 hour period, resulting in a permanent lockout
142	Device failure (Bus)	Any	Check that the appliance and any OZW672 is powered and connected correctly.
151	BMU Internal error	330	Error when closing ignition relay - Check ignition generator and connections from controls - Replace control PCB if no fault found
		331	Error when opening ignition relay - Check ignition generator and connections from controls - Replace control PCB if no fault found
		332	Error when closing gas valve relay - Check gas valve and connections from controls - Replace control PCB if no fault found
		333	Error when opening gas valve relay - Check gas valve and connections from controls - Replace control PCB if no fault found
		336 337	Internal safety relay error - Check if polarity of live and neutral has been reversed to the appliance. Replace PCB if fault repeatedly occurs.
152	Parameterization error	Any	Incorrect / conflicting parameters input (last changed parameters need to be investigated).
		All others	Fan speed setting error. For example the ignition speed cannot be set lower than the minimum fan speed - Review fan speeds and adjust.
153	Unit Locked	622	Temperature inside the appliance casing has exceeded 90^{O}C. Check burner door seals and door nuts are correctly tightened. Activating a reset for more than 10 seconds will also produce this lockout.
		848 849	Parameter update finished. Press reset to apply changes.
160	Fan speed threshold not reached	233 749	Fan does not reach required speed setpoint via PWM control- Check wiring and operation of fan. Replace fan if necessary
		377	Fan speed not reached - Home run stage
		378	Fan speed not reached - Standby stage
		379	Fan speed not reached - Ignition stage
		380	Fan speed not reached - Pre purge stage
		381	Fan speed not reached - Post purge stage
171	Fault input 1	Any	User defined OZW672 input D1 has been activated.
172	Fault input 2	Any	User defined OZW672 input D2 has been activated.
183	Unit in parameterisation mode	770	Code will be displayed when a programming stick is used but should clear when programming is complete. Repeat stick operation if fault code persists
		Any	Press reset after any programming has been actioned to remove lockout

Error Code	Error Code Description	Diag. Code	Notes
217	Sensor error	765 766	Short circuit of Ionisation circuit. Check operation of ionisation probe using parameter 8329 (menu - Diagnostics heat generation). Ionisation probe may need replacing. Check electrical supply to the heater and burner - pay special attention to the earth circuit and supply.
317	Grid frequency outside permitted range	275 461	The frequency (Hz) of the electrical supply is outside permitted tolerance. Check electrical supply to heater.
324	Input BX, same sensors	110	BX sensor duplicated - Two sensor inputs have been defined twice with the same sensor type (e.g. B3). Review last parameters programmed to remove duplication.
325	Input BX/extension mod, same sensors	Any	BX expansion module 1 sensor duplicated - Two sensor inputs have been defined twice with the same sensor type (e.g. B3). Review last parameters programmed for the expansion module to remove duplication.
327	Extension mod, same function	Any	AGU2.5 expansion module function duplicated - check parameter setup (in “Configuration” menu)
335 / 336	Sensor input BX21 / BX22 without function	211 / 212	A sensor has been detected connected to BX21 of the AGU2.5 expansion module 1, but not defined. Define the sensor using the parameters or remove the sensor if not required.
		All other	As above except the undefined sensor is connected to an AGU2.5 expansion module 1. The AGU2.5 expansion module should be defined as module 1 - Check the dip switches on the front of the device is set correctly
384	Extraneous light	252 393	Ionisation current detected before whilst in standby mode. Check ionisation current (“Diagnostics producer” parameter 8329). If there is a current present is greater than 0.61 whilst the burner is in standby, turn off gas supply to check gas valve is closing completely. If current is still present, remove ionisation probe and use a screwdriver to clear the opening through the burner door before replacing the probe and testing again. *Persistent errors may indicate that the burner is only operational for very short periods. Try increasing the switching differential by at least 1°C (parameter 5024) to increase burner run time.*
		Other	Ionisation current detected during ignition phase before the gas valve is opened.
385	Mains under voltage	554 555	Mains voltage below 185v - check electrical supply to the appliance.
386	Fan speed tolerance	388	Fan outside allowed speed tolerance during standby phase
		531 389	Fan outside allowed speed tolerance during pre-purge phase
		374 383 384	Fan outside allowed speed tolerance during ignition phase.
		375 386	Fan outside allowed speed tolerance during min modulation phase.
		385	Fan outside allowed speed tolerance during max modulation phase.
		532 534 382 390	Fan outside allowed speed tolerance during post-purge phase
		Other	Check connections and wiring loom of the fan. Replace fan if no fault found. If necessary use parameter 9650 Chimney drying mode to test the function of the fan without having to operate the burner.
432	Function earth not connected	Any	No Ignition earth, X1 / X17 not connected or earth fault. Check internal and external earth wiring to the heater
433	Heat exchange temperature	Any	Heat exchanger temperature is too high. Investigate all sources of overheating. When the issue has been resolved examine the heat exchanger for damage before putting back into operation.
NA	DHW Operating mode locked	Any	Check to see if the remote enable link wire is fitted or external controls wired to these terminals are closing this circuit. To activate DHW operation this circuit must be closed.

3.9 Maintenance messages

The display will show a symbol if the heater is reporting a maintenance issue. The heater will continue to operate as normal, but it may in future stop if the maintenance message is ignored and an error develops as a result.

Example

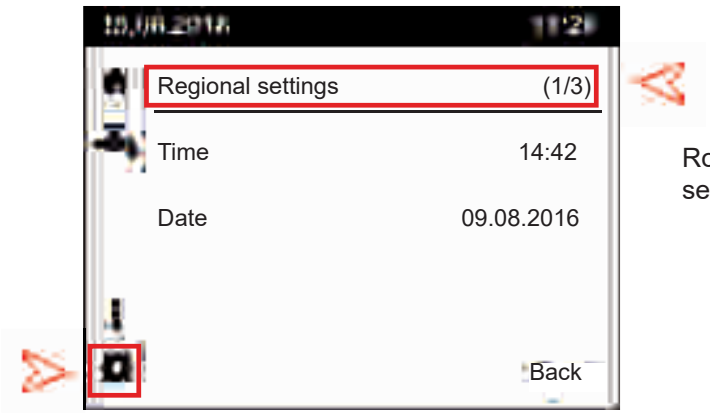


In this example **‘105: Maintenance message’** is used to notify the user, the heater has been in operation for more than 12 months and requires a service inspection. When servicing has been completed, the service counter should be reset using parameter 7045, in the Service / special operation menu (see installation and maintenance manual section 9.2.1).

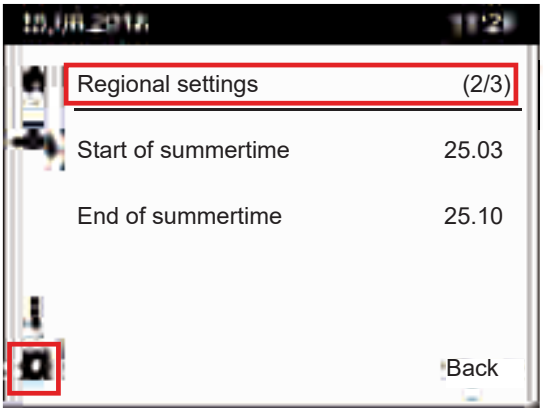
3.10 Regional settings

Settings available for adjustment:

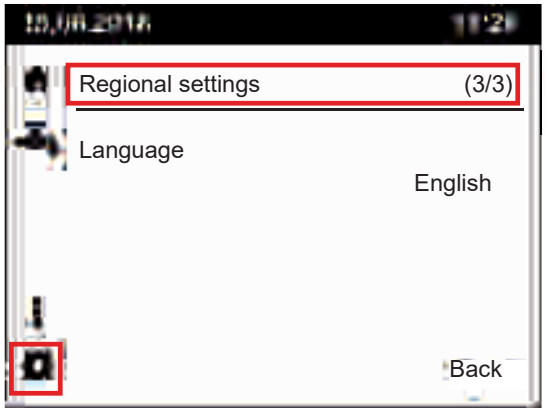
- Time
- Date
- Daylight saving time start and end
- Language



Rotate ① to highlight regional settings and press enter to select. Rotate ① to select one of the 3 setting pages.



Default dates mark the start and end of summertime clock adjustment. This can be changed if actual dates of adjustment are known (see below).

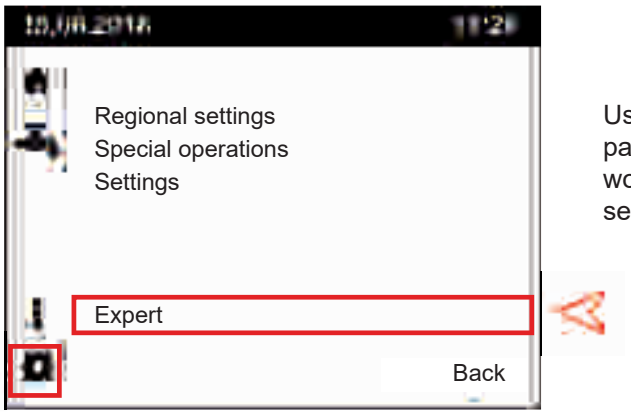


If required the display language can be changed. Caution is advised before changing the language as you may experience difficulty finding the menu to be able to change it back again.

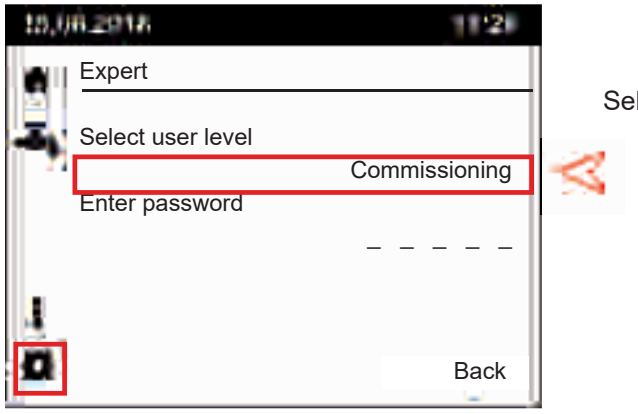
4.0 Commissioning Operation (in addition to User operation)

Caution
The features available at “Expert” level are intended for use by a competent commissioning engineer. The following section details options/screens that are available to the commissioning engineer in additions to the options/screens available at end user level.

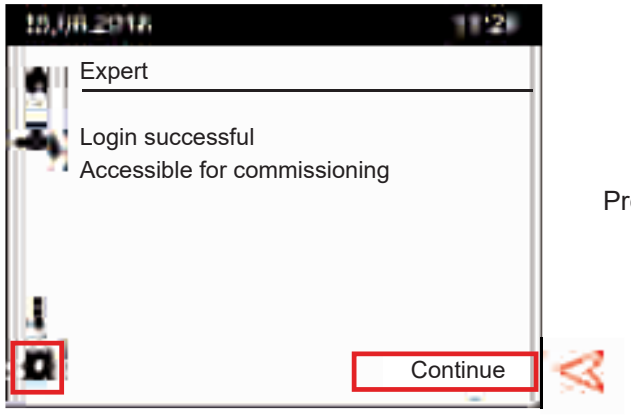
4.1 Logging into Commissioning mode



Using the Graphical User Interface, rotate ① to select “Setup” page on the navigation bar and press enter to select. In the work area , rotate ① to select “Expert” field and press enter to select.

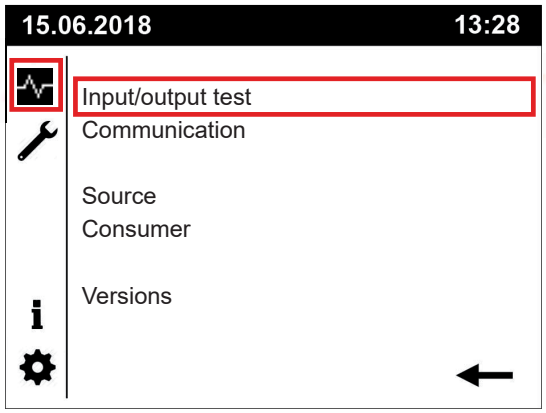


Select “Commissioning” using ① and press enter.

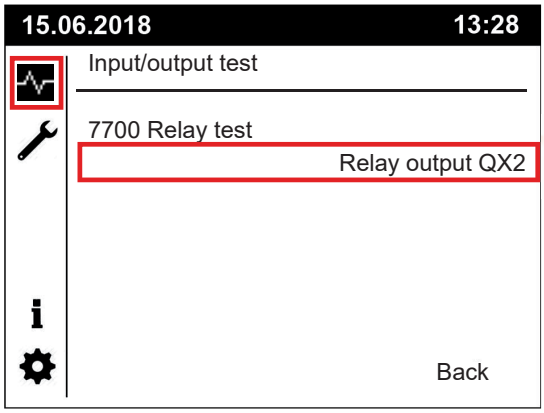


Press enter to continue into commissioning mode.

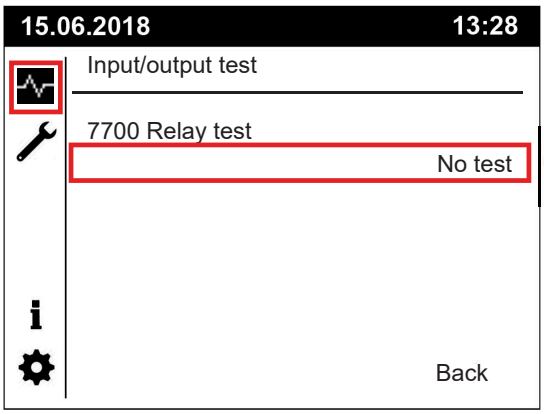
This function is used to test all non safety inputs and outputs going to and from the controls. Useful in confirming operation of external items, such as the Q4 circulation pump.



Highlight “Input/output test” by rotating ① and select the function by pressing enter.

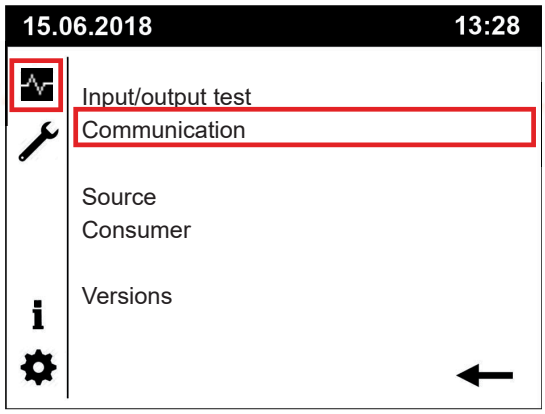


Rotate ① to field “7700 Relay test” and press enter. Rotate ① to select output to test. Press the enter to activate the desired output relay (see example above).

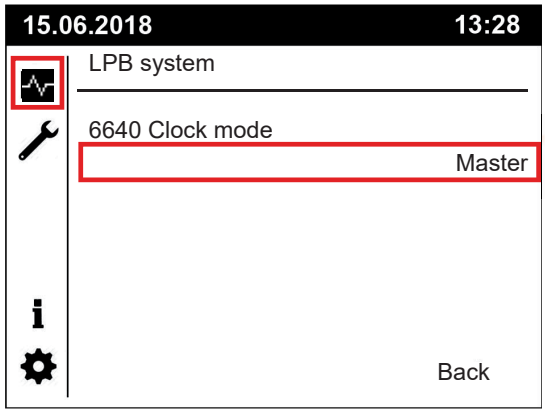


Once the testing has been completed, use ① to change field “7700 Relay test” back to “No test” and the heater will revert back to normal control of the outputs.

This function gives access to the Local Process Bus and is useful, should the optional web server be fitted to communicate with the heater.



Highlight “Communication” by rotating ① and select the function by pressing enter.



In commissioning mode only parameter line 6640 is visible.

When other compatible equipment is connected to this heater (e.g. the optional web server) only one of the connected items can be the clock master.

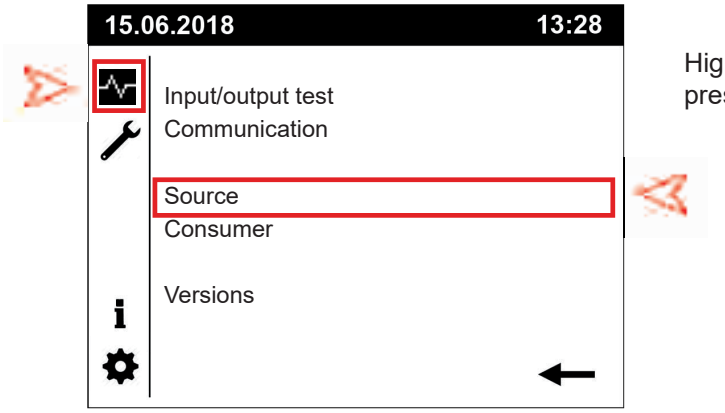
If the optional web server is connected to this heater, then parameter line 6640 must be changed to “Slave without local setting”, as the web server will act as the time clock master and will provide all of connected heaters with a common time taken from the Internet.

No adjustment for summer and winter times will be necessary if the web server is installed, as time adjustments will be carried out automatically.

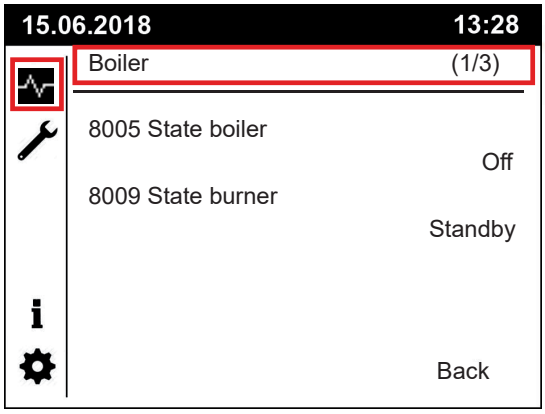
4.4 Source

This function displays information about the live internal operational status of the heater and it's sensors.

.



Highlight "Source" by rotating ① and select the function by pressing enter.



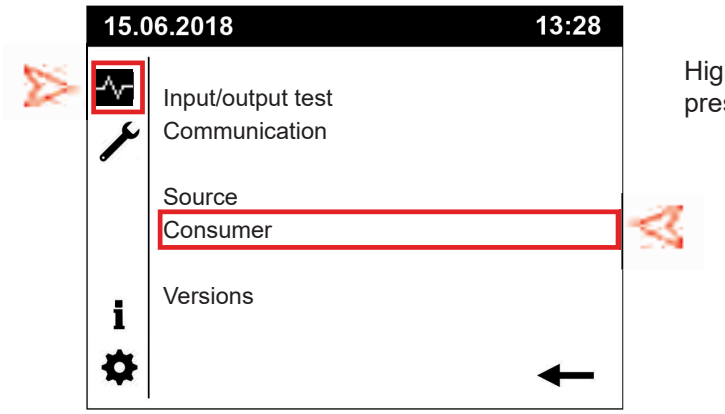
Use ① to scroll through the three pages of information available.

NB. It is not possible to reset the counters on page 3 in commissioning mode. Log into the heater as an "Engineer" to reset these counters (see installation and maintenance manual section 9.2.1).

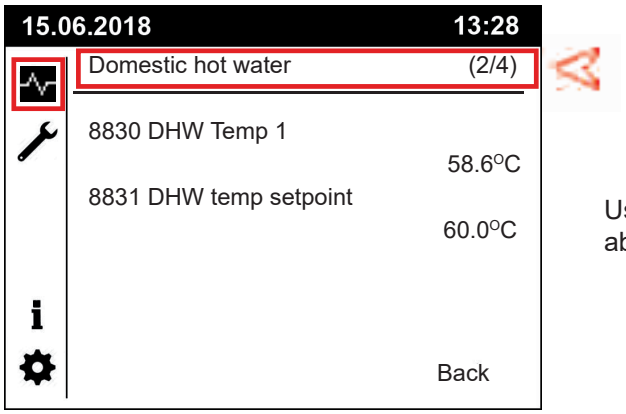
Useful parameters viewable in commissioning mode:

PARAMETER	DESCRIPTION	NOTES
8005	State boiler	Current state of boiler
8009	State burner	Current state of burner
8316	Flue gas temp	Current temperature measured at flue outlet
8330	Hours run 1st stage	Total operational burner hours recorded
8331	Start counter 1st stage	Total number of burner operations started

This function displays information about the live operational status of the items external to the operation of the water heater.



Highlight “Consumer” by rotating ① and select the function by pressing enter.



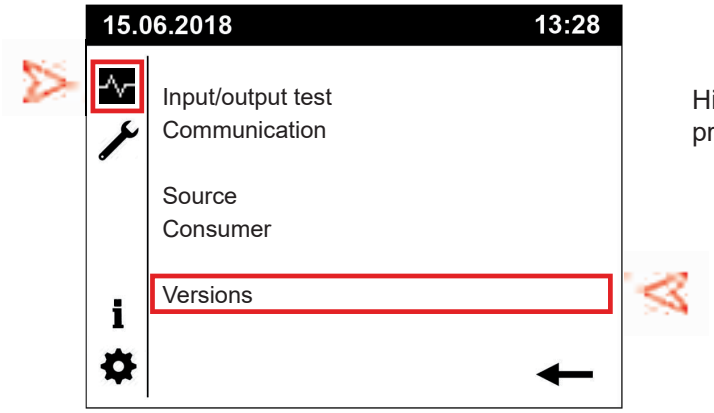
Use ① to scroll through the three pages of information available.

Useful parameters viewable:

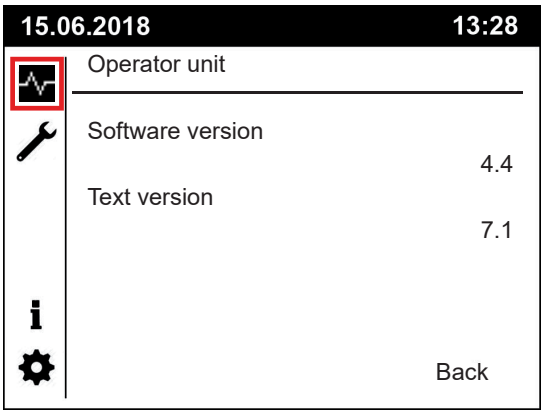
PARAMETER	DESCRIPTION	NOTES
8003	State DHW	Current status of DHW water
8830	DHW temp	Current temperature of DHW water
8831	DHW temp set point	DHW temperature set point
8835	DHW circulating temp	Temperature of water returning to the DHW tank from the secondary return system
8836	DHW charging temp	Temperature of the heated water entering the DHW tank

4.6 Versions

This function displays information about the software and text versions used by the heater screen.



Highlight “Versions” by rotating ① and select the function by pressing enter.



Details are shown for the software and text versions being used by the GUI, this may be useful to establish the level of updates applied to the heater.

M10226 Rev A : April 2022

Sales 0345 070 1055

Technical 0345 070 1057

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April 2022

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