Ideal s18 Logic System User Guide

Contents

Ideal s18 Logic System

Product Information

Specifications

- Model: Logic + System
- Available Models: S15, S18, S24, S30
- Type: System Boiler
- Ignition: Full Sequence Automatic Spark Ignition
- Combustion: Fan Assisted
- Power Supply: 230 V ~ 50 Hz
- Fusing: 3A

Introduction

The Logic + System S is a system boiler designed to provide central heating and hot water when a separate hot water cylinder is installed. It features full sequence automatic spark ignition and fan assisted combustion. The high efficiency of the boiler produces condensate from the flue gases, which is drained through a plastic waste pipe at the base of the boiler. A condensate ‘plume’ will also be visible at the flue terminal.

Safety

According to the current Gas Safety (Installation & Use) Regulations, this boiler must be installed by a Gas Safe Registered Engineer to ensure safety and compliance with regulations. In Ireland (IE), the installation must be

carried out by a Registered Gas Installer (RGII) by I.S. 813 Domestic Gas Installations, the current Building Regulations, and the current ETCI rules for electrical installation.

Electricity Supply

This appliance requires an earthed electricity supply of 230 V ~ 50 Hz. The recommended fuse rating is 3A.

Important Notes

When replacing any part on this appliance, use only spare parts that conform to the safety and performance specifications required by Ideal. Do not use reconditioned or copy parts that have not been authorized by Ideal. For the latest literature on specification and maintenance practices, visit the Ideal Boilers website at **www.idealboilers.com** to download the relevant information in PDF format.

Product Usage Instructions

Condensate Drain

The Logic + System S boiler produces condensate from the flue gases. The condensate is drained to a suitable disposal point through a plastic waste pipe located at the base of the boiler. Ensure that the condensate waste pipe is correctly fitted and forms an adequate seal.

Loss of System Water Pressure

If you experience a loss of system water pressure, refer to the troubleshooting section in the user manual or contact a qualified technician for assistance.

General Information

For general information on operating the Logic + System S boiler, refer to the user manual provided with the product. It is essential to strictly follow the instructions in the manual for safe and economical operation of the boiler.

FAQ

- Q: Who should install the Logic + System S boiler?
  A: The boiler must be installed by a Gas Safe Registered Engineer by current regulations. In Ireland, it should be installed by a Registered Gas Installer (RGII) following the relevant standards and rules.
- Q: Where can I find the latest literature on specification and maintenance practices?
  A: Visit the Ideal Boilers website at **www.idealboilers.com** to download the relevant information in PDF format.
- Q: What should I do if I experience a loss of system water pressure?
  A: Refer to the troubleshooting section in the user manual or contact a qualified technician for assistance.

When replacing any part on this appliance, use only spare parts that you can be assured conform to the safety and performance specifications that we require. Do not use reconditioned or copied parts that have not been authorized by Ideal.
For the very latest copy of literature for specification and maintenance practices visit our website www.idealboilers.com where you can download the relevant information in PDF format.

INTRODUCTION

The Logic + System S is a system boiler, featuring full-sequence automatic spark ignition and fan-assisted combustion. It is designed to provide central heating and hot water when a separate hot water cylinder is installed. Due to the high efficiency of the boiler, condensate is produced from the flue gases and this is drained to a suitable disposal point through a plastic waste pipe at the base of the boiler. A condensate 'plume' will also be visible at the flue terminal.

SAFETY

Current Gas Safety (Installation & Use) Regulations or rules in force.

- In your own interest, and that of safety, it is the law that this boiler must be installed by a Gas Safe Registered Engineer, by the above regulations.
- In IE, the installation must be carried out by a Registered Gas Installer (RGII) and installed by the current edition of I.S. 813 "Domestic Gas Installations", the current Building Regulations and reference should be made to the current ETCI rules for electrical installation.
- The instructions in this booklet must be strictly followed, for safe and economical operation of the boiler.

ELECTRICITY SUPPLY

This appliance must be earthed.

Supply: 230 V ~ 50 Hz. The fusing should be 3A.

IMPORTANT NOTES

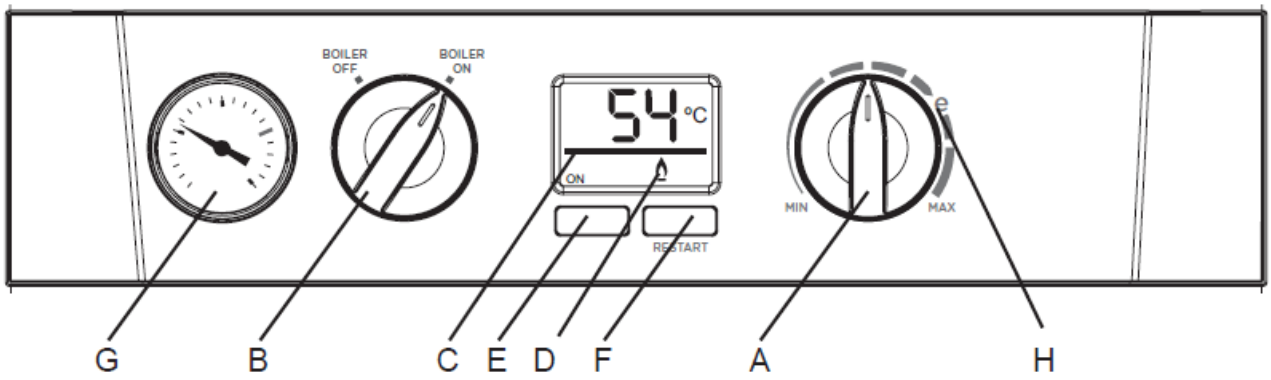
- This appliance must not be operated without the casing correctly fitted and forming an adequate seal.
- If the boiler is installed in a compartment then the compartment MUST NOT be used for storage purposes.
- If it is known or suspected that a fault exists on the boiler then it MUST NOT BE USED until the fault has been corrected by a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII).
- Under NO circumstances should any of the sealed components on this appliance be used incorrectly or tampered with.
- This appliance can be used by children 8 years and above. Also persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, provided they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

All Gas Safe Register installers carry a Gas Safe Register ID card, and have a registration number. Both should be recorded in the Benchmark Commissioning Checklist. You can check your installer by calling Gas Safe Register direct on 0800 4085500.

Ideal Boilers is a member of the Benchmark scheme and fully supports the aims of the program. Benchmark has been introduced to improve the standards of installation and commissioning of central heating systems in the UK and to encourage the regular servicing of all central heating systems to ensure safety and efficiency.
THE BENCHMARK SERVICE INTERVAL RECORD MUST BE COMPLETED AFTER EACH SERVICE

BOILER OPERATION

Legend



- A. CH temperature control
- B. Mode Control Knob
- C. Boiler Status
- D. Burner ‘on’ indicator
- E. Function Button
- F. Restart Button
- G. Pressure Gauge
- H. Central Heating Economy Setting

TO START THE BOILER

If a programmer is fitted refer to separate instructions for the programmer before continuing.

Start the boiler as follows:

1. Check that the electricity supply to the boiler is off.
2. Set the mode knob (B) to ‘BOILER OFF’.
3. Set the Central Heating temperature knob (A) to ‘MAX’.
4. Switch on electricity to the boiler and check that all external controls, e.g. programmer, room thermostat and hot water cylinder thermostat are on.
5. Set the mode knob (B) to ‘BOILER ON’. The boiler will commence ignition sequence, supplying heat to the central heating, if required.
   Note. In normal operation, the boiler status display (C) will show codes:
   00 Standby – no demand for heat.
   Central Heating is being supplied
   FP Boiler frost protection – boiler will fire if temperature is below 5ºC.

During normal operation the burner on indicator (D) will remain illuminated when the burner is lit.
Note: If the boiler fails to light after five attempts the fault code L 2 will be displayed (refer to Fault Code page).

To Turn Off
Set the mode knob (B) to ‘BOILER OFF’.

CONTROL OF WATER TEMPERATURE

The boiler controls the central heating radiator temperature to a maximum of 80oC, adjustable via the central heating temperature knob (A).
Approximate temperatures for central heating

Knob Setting	Central Heating Radiator Temperature (approx.)
Minimum	30ºC
Maximum	80ºC

For economy setting ‘ ’ refer to Efficient Heating System Operation.

EFFICIENT HEATING SYSTEM OPERATION

- The boiler is a high efficiency, condensing appliance which will automatically adjust its output to match the demand for heat.
- Therefore gas consumption is reduced as the heat demand is reduced.
- The boiler condenses water from the flue gases when operating most efficiently. To operate your boiler efficiently (using less gas) turn the central heating temperature knob (A) to the ‘ ‘ position or lower. In winter periods it may be necessary to turn the knob towards the ‘MAX’ position to meet heating requirements. This will depend on the house and radiators used.
- Reducing the room thermostat setting by 1ºC can reduce gas consumption by up to 10%.

WEATHER COMPENSATION

When the Weather Compensation option is fitted to the system then the central heating temperature knob (A) becomes a method of controlling room temperature. Turn the knob clockwise to increase room temperature and anti-clockwise to decrease room temperature. Once the desired setting has been achieved, leave the knob in this position and the system will automatically achieve the desired room temperature for all outside weather conditions.

BOILER FROST PROTECTION

- If the system includes a frost thermostat then, during cold weather, the boiler should be turned OFF at the programmer (if fitted) ONLY. The mains supply should be left switched ON, with the boiler thermostat left in the normal running position.
- If no system frost protection is provided and frost is likely during a short absence from home it is recommended to leave the heating controls (if fitted) at a reduced temperature setting.
- For longer periods, the entire system should be drained.

BOILER RESTART

To restart the boiler, when directed in the listed fault codes (see section 8) press the “RESTART” button (F). The boiler will repeat its ignition sequence. If the boiler still fails to start consult a Gas Safe Registered Engineer or an IE Registered Gas Installer (RGII).

MAINS POWER OFF

To remove all power to the boiler the mains power switch must be turned off.

CONDENSATE DRAIN

This appliance is fitted with a siphonic condensate trap system that reduces the risk of the appliance condensate from freezing. However should the condensate pipe to this appliance freeze, please follow these instructions:

- a. If you do not feel competent to carry out the defrosting instructions below please call your local Gas Safe Registered installer for assistance.
- b. If you do feel competent to carry out the following instructions please do so with care when handling hot utensils. Do not attempt to thaw pipework above ground level.

If this appliance develops a blockage in its condensate pipe, its condensate will build up to a point where it will make a gurgling noise prior to locking out an “L 2” fault code. If the appliance is restarted it will make a gurgling noise prior to it locking out on a failed ignition “L 2” code.

To unblock a frozen condensate pipe;

1. Follow the routing of the plastic pipe from its exit point on the appliance, through its route to its termination point. Locate the frozen blockage. It is likely that the pipe is frozen at the most exposed point external to the building or where there is some obstruction to flow. This could be at the open end of the pipe, at a bend or elbow, or where there is a dip in the pipe in which condensate can collect. The location of the blockage should be identified as closely as possible before taking further action.
2. Apply a hot water bottle, microwaveable heat pack or a warm damp cloth to the frozen blockage area. Several applications may have to be made before it fully defrosts. Warm water can also be poured onto the pipe from a watering can or similar. DO NOT use boiling water.
3. Caution when using warm water as this may freeze and cause other localised hazards.
4. Once the blockage is removed and the condensate can flow freely, restart the appliance. (Refer to “To Start the boiler”)
5. If the appliance fails to ignite, call your Gas Safe Registered engineer.

Preventative solutions

- During cold weather, set the central heating temperature knob (A) to maximum, (Must return to original setting once cold spell is over).
- Place the heating on continuous and turn the room thermostat down to 15ºC overnight or when unoccupied. (Return to normal after cold spell).

LOSS OF SYSTEM WATER PRESSURE
The gauge (G) indicates the central heating system pressure. If the pressure is seen to fall below the original installation pressure of 1-2 bar over a period of time then a water leak may be indicated. In this event conduct the re-pressurising procedure as follows:
Re-pressurise via the filling loop to 1 bar (if unsure contact your installer). Turn off the tap on the filling loop and press the “RESTART” button to restart the boiler.
If unable to do so or if the pressure continues to drop after filling a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII) should be consulted.
NOTE. THE BOILER WILL NOT OPERATE IF PRESSURE HAS REDUCED TO LESS THAN 0.3 BAR UNDER THIS CONDITION.

GENERAL INFORMATION

BOILER PUMP

The boiler pump will operate briefly as a self-check once every 24 hours, regardless of system demand.

MINIMUM CLEARANCES
Clearance of 165mm (6 1/2”) above, 100mm (4”) below, 2.5mm (1/8”) at the sides and 450mm (17 3/4”) at the front of the boiler casing must be allowed for servicing.

Bottom Clearance

Bottom clearance after installation can be reduced to 5mm This must be obtained with an easily removable panel to provide the 100mm clearance required for servicing.

ESCAPE OF GAS
Should a gas leak or fault be suspected contact the National Gas Emergency Service without delay. Telephone 0800 111 999.

Ensure that;

- All naked flames are extinguished
- Do not operate electrical switches
- Open all windows and doors

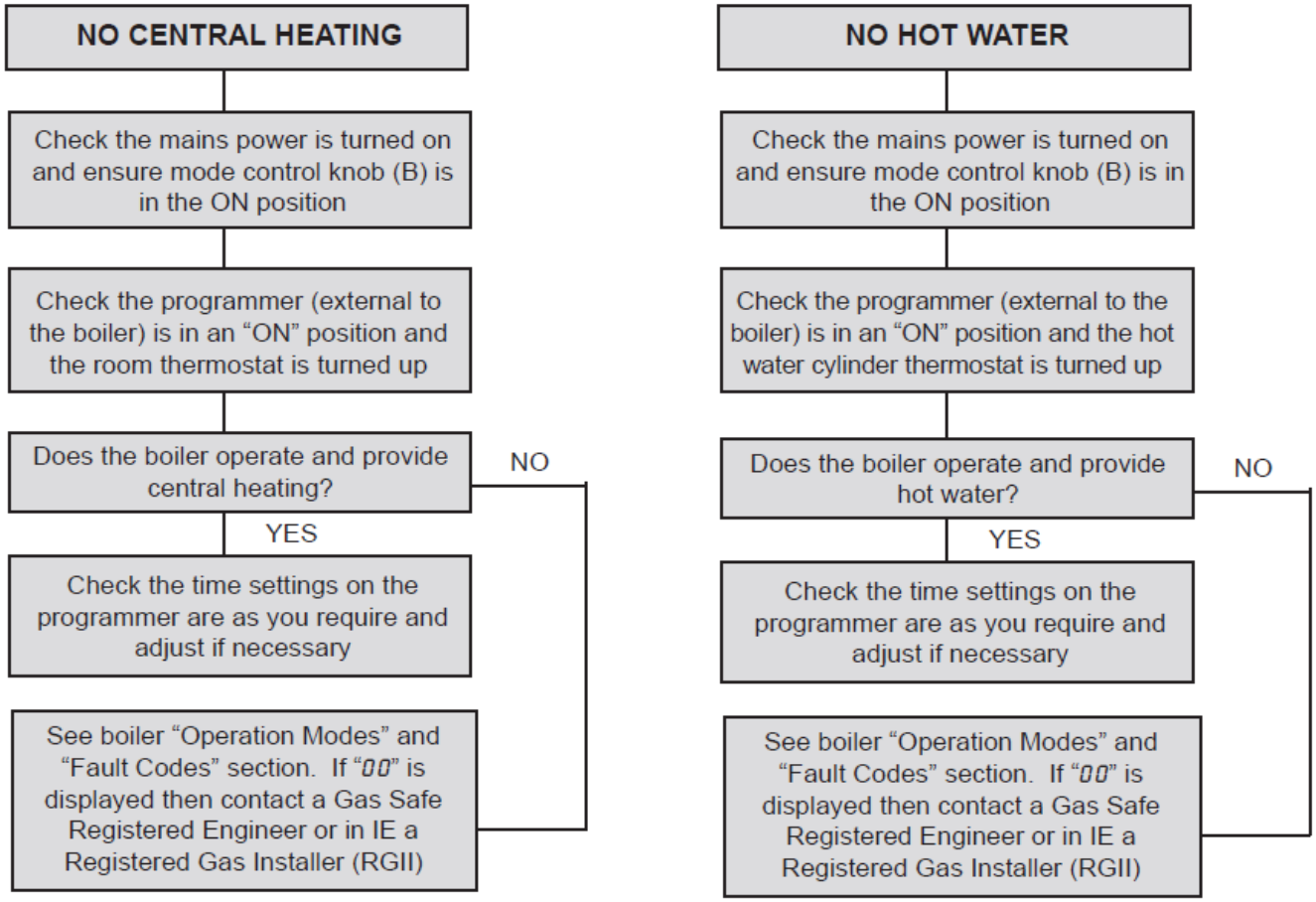
CLEANING
For normal cleaning simply dust with a dry cloth. To remove stubborn marks and stains, wipe with a damp cloth and finish off with a dry cloth. DO NOT use abrasive cleaning materials.

MAINTENANCE
The appliance should be serviced at least once a year by a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII)

POINTS FOR THE BOILER USER

Note. In line with our current warranty policy we would ask that you check through the following guide to identify any problems external to the boiler prior to requesting a service engineers visit. Should the problem be found to be other than with the appliance we reserve the right to levy a charge for the visit, or for any pre-arranged visit where access is not gained by the engineer.

TROUBLESHOOTING

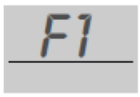
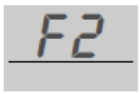
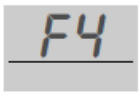
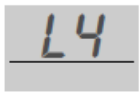
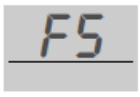
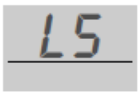
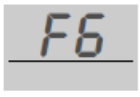
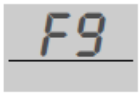
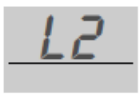
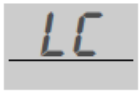
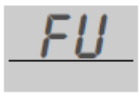


FOR ANY QUERIES PLEASE RING THE IDEAL CONSUMER HELPLINE : 01482 498660
NOTE. BOILER RESTART PROCEDURE – To restart boiler, press the "RESTART" button

NORMAL OPERATION DISPLAY CODES

DISPLAY CODE ON BOILER	DESCRIPTION
00	The boiler is in standby operation awaiting either a central heating call or hot water demand.
54 °C ON	The boiler has a call for central heating but the appliance has reached the desired temperature set on the boiler.
54 °C ON	The boiler is operating in central heating / hot water mode.
FP	The boiler is operating in frost protection.
--	The boiler mode knob (B) is in the off position, rotate fully clockwise for hot water and central heating operation.

FAULT CODES

DISPLAY CODE ON BOILER	DESCRIPTION	ACTION
	Low Water Pressure	Check system water pressure is between 1 & 1.5bar on the system pressure gauge. To re-pressurise the system see Section 3. If the boiler still fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Flame Loss	1. Check other gas appliances in the house are working to confirm a supply is present in the property. 2. If other appliances do not work or there are no other appliances, check the gas supply is on at the meter and/or pre payment meter has credit. If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Fan Fault	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
 	Flow Thermistor	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
 	Return Thermistor	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Outside Sensor Failure	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Low Mains Voltage	Contact a qualified electrician or your electricity provider.
 	Unconfigured PCB	Unconfigured PCB. Please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Flow Temperature Overheat or No Water Flow	Check system water pressure is between 1 & 1.5bar on the system pressure gauge. To re-pressurise the system see Section 4. If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Ignition Lockout	1. Check condensate Pipe for blockages (refer to Section 3) 2. Check other gas appliances in the house are working to confirm a supply is present in the property. 3. If other appliances do not work or there are no other appliances, check the gas supply is on at the meter and/or pre payment meter has credit. If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	False Flame Lockout	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	5 Boiler Resets in 15 minutes	1. Turn electrical supply to boiler off and on. 2. If the boiler fails to operate please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Flow/Return Differential > 50°C	If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).

Documents / Resources

Ideal s18 Logic System [pdf] User Guide
s18 Logic System, s18, Logic System, System

References

- Manual-Hub.com - Free PDF manuals!
- Ideal Heating | New Boilers, Heat Pumps & Heating Controls
- Manual-Hub.com - Free PDF manuals!
- User Manual