The LBF range

High Efficiency Gas Fired Water Heaters
User Instructions

Models:

LBF81
LBF121
LBF151
LBF171
LBF221
LBF301
LBF401

INS0045 Issue No 2 | Sept 2015

Lochinvar®
High Efficiency Water Heaters and Boilers

1.0 USER GUIDE

1.1 GENERAL REQUIREMENTS

- **This equipment must be installed by a competent person, registered with a H.S.E. approved body. All installations must conform to the relevant Gas Safety and Building regulations. Health & safety requirements must also be taken into account when installing any equipment.**
- **A competent person must also undertake any alterations that require the gas train or flue system to be broken.**
- **Any interference with a sealed component is forbidden.**
- **Failure to comply with the above may lead to prosecution.**
- **Incorrect use may result in injury and will also invalidate the warranty**
- **The area around the viewing window may become hot during operation. Care should be used to prevent direct contact with the viewing window and its immediate surroundings.**

1.2 PROCEDURE FOR LIGHTING

1. Ensure that the gas-inlet appliance isolating valve is in the “off” position.
2. Press the power rocker switch, positioned on the front of the appliance next to the control thermostat, to bring the equipment on.
3. Set the control thermostat to a value above that of the stored water.
4. The combustion fan should start and purge the combustion chamber. The spark generator should create a spark and the gas solenoid should open. As the gas-inlet appliance isolating valve is closed the appliance should go to a flame failure condition within 10 seconds this will be indicated by a red lock-out light on the control panel.
5. If the above occurs correctly, open the gas-inlet appliance isolating valve and reset the unit by depressing the red lock-out light on the control panel and a new ignition cycle will begin.
6. The combustion fan will repeat the pre-purge procedure and attempt to light. Once a flame is established, the green ‘Burner On’ lamp, located on the control panel, will illuminate.

1.3 PROCEDURE FOR SHUTTING DOWN

To take the appliance out of service, the power rocker switch should be switched to the off position. If the appliance in to be shut down for a long period of time, the gas supply should be isolated at the gas-inlet appliance isolating valve.

1.4 TEMPERATURE ADJUSTMENT PROCEDURE

The setpoint can be adjusted using the dial thermostat on the control panel and monitored using the temperature gauge.

The setpoint should be adjusted to ensure that the water is stored at 60°C and distributed at 50°C within 1 (one) minute at all outlets. Care is needed to avoid much higher temperatures because of the risk of scalding. At 50°C the risk of scalding is small for most people, but the risk increases rapidly with higher temperatures and for longer exposure times. The risk to young children and to those with a sensory or mobility loss will be greater. Where a significant scalding risk has been identified, the use of thermostatic mixing valves on baths and showers should be considered to reduce temperature, these need to be placed as close to the point of use as possible.

1.5 MAINTENANCE

Service intervals should be determined during the first months of operation. Details of this procedure can be found in the Installation Commissioning and Maintenance Instructions for the appliance. If these instructions are not available, a copy should be obtained from Lochinvar's website www.lochinvar.ltd.uk or by using the contact details on the back cover of this document.

Even if the maintenance schedule for the storage vessel is determined to be less than annually, it is important that all controls and safety features are checked for correct operation on an annual basis. The sacrificial magnesium anodes must be inspected at least once a year unless the Correx non-sacrificial anode protection system is used, in which case there is no requirement to check the condition of the sacrificial anodes.

A competent person should check and ensure that the flue system, ventilation to the plant room, safety valve, drain, pressure gauge etc. are in a serviceable and working condition and still comply with the relevant standards and codes of practice, as detailed in the Installation, Commissioning and Maintenance Instructions.

1.6 FROST PROTECTION

The LBF water heater has no built in frost protection system. Adequate protection must be provided to prevent the water heater being exposed to freezing temperatures.

1.7 AIR SUPPLY

- When installed in a compartment, the appliance compartment must be ventilated in accordance with relevant standards.
- **Blocking these air vents may lead to severe injury, serious property damage or death.**
- The area in which the appliance is installed should not be used to store any other materials.

1.8 FLAME FAILURE LOCKOUT

If the LBF water heater should go to a flame failure condition, **reset the unit by depressing the red lock-out light on the control panel** and a new ignition cycle will begin.

The combustion fan will pre-purge and attempt to light. Once a flame is established, the green 'Burner On' lamp, located on the control panel, will illuminate. Should the water heater lock out again, a competent engineer should be called to investigate the cause of the fault.

2.0 ErP SPECIFICATION DATA SHEET

Water Heater Type:		LBF81	LBF121	LBF151	LBF171	LBF221	LBF301	LBF401
Manufacturer		Lochinvar Limited						
Load Profile		M	L	XL	XXL	XXL	XXL	XXL
Efficiency class		B	B	B	B	B	B	B
Energy Efficiency	%	52%	63%	70%	69%	63%	69%	79%
Daily Electricity Consumption	Qelec	0.164	0.097	0.204	0.079	0.078	0.172	0.484
Daily Fuel Consumption	Qfuel	12.635	20.287	29.722	35.133	39.047	39.03	29.937
Mixed water V40 @40oC	litre							
Emmissions of Nitrogen Oxides	mg/kwh							

Lochinvar®
High Efficiency Water Heaters and Boilers

Lochinvar Ltd
7 Lombard Way
The MXL Centre
Banbury
Oxon
OX16 4TJ

Tel: +44 (0) 1295 269981
Fax: +44 (0) 1295 271640
Email: info@lochinvar.ltd.uk

www.lochinvar.ltd.uk