

## Maintenance / Service

### 9.3 Fault finding

Below is a list of some scenarios that may lead to a failure causing the burner to go into lockout mode. There are also some relevant tests and solutions to hopefully overcome any problem that may occur.

Push the reset button to re-start the burner. If the burner then functions correctly the control has simply responded to a temporary fault. If the burner still fails then a further investigation will be required to correct any fault.

Fault	Probable cause	Useful test	Solution	
The burner will not start	Lack of Voltage	Is there 230v onto terminal 9 of the control box?	Replace control box	
		If there is no voltage onto terminal 9 then there is an external fault	Check thermostats, switches, fuses etc to trace fault	
The burner starts but no flame is present and the burner goes to lockout	No fuel to burner		Check if there is oil present at the pump inlet	Check fuel tank, valves, etc for problems
	No fuel to the nozzle	No voltage to solenoid coil	Cover photocell. If burner fires up ok then photocell must be detecting a light source during pre-purge	Identify source, spark, etc and remedy
			If there is still no flame disconnect photocell. If now ok then cell must be faulty.	Replace photocell
		Voltage to coil but not energizing	Test to ensure the coil measures a resistance of between 2-3 kohms	Replace coil
		Coil energized but no oil at pump outlet	Check valve opening. Replace if necessary	
		Oil at pump outlet but none through the nozzle	Replace nozzle, or check line for blockage	
	No Spark		Check electrodes, HT leads and voltage to transformer. If all ok then transformer is faulty.	Replace transformer
The burner starts, establishes a flame and locks out after 10 secs	Flame recognition (photocell not seeing flame)		Remove photocell and ensure that it is covered and not exposed to any light, reset burner and once the burner establishes a flame (after about 12 Secs) expose the photocell to light	If the burner still goes to lockout, then check photocell/photocell lead/ control box
			If the burner continues to run, check that photocell is not obstructed from seeing the flame. Check combustion settings, consult EOGB for further information	
The burner starts, and a flame is established instantly and the burner goes to lockout after 20 secs	Solenoid stem is letting by	Disconnect solenoid lead and re-test.	If the burner still establishes a flame then replace solenoid stem/pump	
	Solenoid stem is being energised before it should be	Disconnect any external wiring from terminal B4 and test solenoid lead for 230v	If voltage disappears when external wiring is removed the fault will be external, investigate boiler wiring If voltage remains then replace control box	
The burner starts, no flame is established and the burner goes to lockout after 20secs	Flame recognition/stray light		Disconnect the photocell/lead, and retest	If the burner <u>does</u> fire up for 10 secs the replace photocell/lead
			If the burner <u>does not</u> fire the replace control box	

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Fault	Probable cause	Useful test	Solution
Flame is pulsating	Faulty or dirty nozzle		Replace nozzle
	Excessive flue draught	Measure draught	Reset combustion or adjust draught stabilizer (if fitted)
Smoking Flame	Faulty nozzle	Replace nozzle	
	Combustion not set correctly	Check combustion	Reset combustion
	Insufficient air	Check combustion	Increase air setting. Check ventilation
	Fuel pressure too low/high	Check fuel pressure	Set fuel pressure as per manufacturers instructions
Burner keeps bringing ignition back on	Flame recognition or low sulphur fuel	Remove photocell and ensure that it is covered and not exposed to any light, reset burner and once the burner establishes a flame (after about 12 Secs) expose the photocell to light	If problem disappears the problem is with the flame picture - reset combustion  If the problem does not disappear then the photocell is at fault
	Low sulphur fuel	Remove photocell and ensure that it is covered and not exposed to any light, reset burner and once the burner establishes a flame (after about 12 Secs) expose the photocell to light	If problem disappears the problem is with the fuel luminosity caused by a lower sulphur fuel, reset combustion with a Cc2 % of around 12-12.5 % or contact EOGB for further information  If the problem does not disappear then the photocell is at fault



**WARNING**

Do not keep the lockout reset button permanently pressed as this will overheat the ignition unit. Allow 2 minutes between reset attempts to allow sufficient cooling.

Please note: The information given above is provided to assist the engineer with any problems they may encounter. This is not a definitive list.

The manufacturer cannot accept responsibility for any damage to persons, animals or property due to error in installation or in the burner adjustment, or due to improper or unreasonable use or non observance of the technical instruction enclosed with the burner, or due to the intervention of unqualified personnel.

If further problems are encountered then please contact EOGB Energy Products Ltd for advice.

**Technical helpline - Tel: 01480 477066 option 2**

**Email - [technical@eogb.co.uk](mailto:technical@eogb.co.uk)**

**Web - [www.eogb.co.uk](http://www.eogb.co.uk)**

For more help please see our YouTube channel for informative instruction videos on the X-Series burners



[www.youtube.com/EOGBenergyproducts](http://www.youtube.com/EOGBenergyproducts)

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