

8. FAULTS

When the controller detects a fault, the red fault LED flashes (above the *Reset* button) and a fault code is shown on the *Temperature* display.


After the fault has been remedied, the controller can be restarted by pressing the *Reset* button for 5 secs.

The following faults are detected and displayed:-

Temperature display	Description	Possible cause/remedy
10, 11, 12, 13, 14	Sensor fault S1	<ul style="list-style-type: none"> • Check the wires for breaks • Replace S1
20, 21, 22, 23, 24	Sensor fault S2	<ul style="list-style-type: none"> • Check the wires for breaks • Replace S2
0	Sensor fault after self-check	<ul style="list-style-type: none"> • Replace boiler sensor S1 and/or S2
1	Temperature too high	<ul style="list-style-type: none"> • Air in system • Pump does not run • Too little circulation in system, radiators closed, pump setting too low
2	Exchange S1 and S2	<ul style="list-style-type: none"> • Check the cable loom • Replace S1 or S2
4	No flame signal after 4 ignition attempts	<ul style="list-style-type: none"> • Gas tap closed • Incorrect ignition distance • Gas inlet pressure too low or disappears • Gas valve or ignition unit does not receive voltage • Further info can be found on Technical Data Sheet TDS012 available on www.atmos.co.uk
5	No flame signal after 4 restart attempts	<ul style="list-style-type: none"> • Condensate discharge blocked • Check setting of gas valve • Further info can be found on Technical Data Sheet TDS013 available on www.atmos.co.uk
6	Flame detection fault	<ul style="list-style-type: none"> • Replace ignition cable + spark probe • Replace ignition unit • Replace controller
8	Fan speed incorrect	<ul style="list-style-type: none"> • Fan rubs against casing • Wiring between fan and casing • Check the wires for poor contact (tacho signal) • Replace fan
29, 30	Gas valve relay fault	<ul style="list-style-type: none"> • Replace controller

8.1 Display last fault code.

It is possible to display the last fault code as follows:

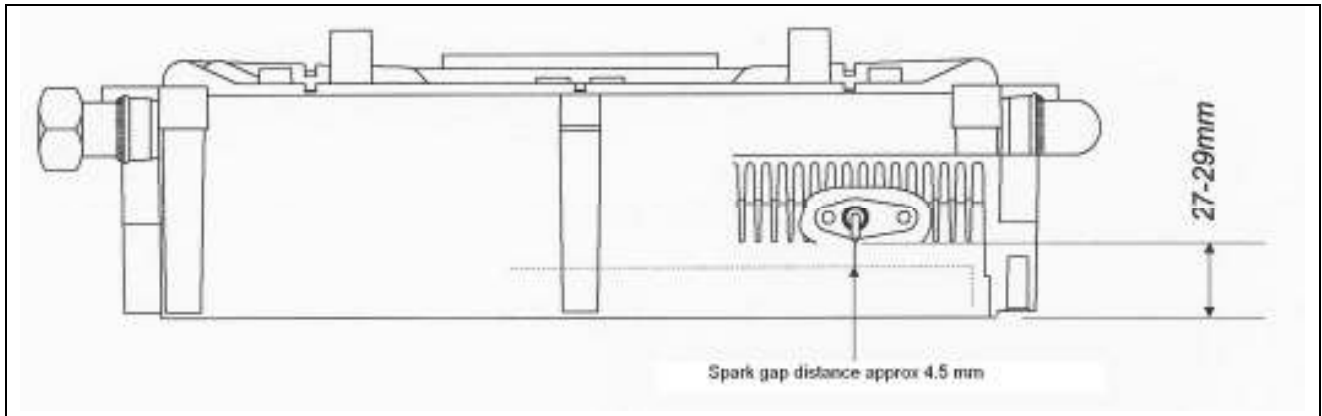
- Set the appliance in the off mode using the *On/Off* key ( on the service display).
- Press the *Service* key, until the last fault code appears flashing on the temperature display. When no fault has occurred no code will be displayed.
- By pressing simultaneously the *Service* key and the “-“ key the fault code will be erased.

8.2 Burner does not ignite

Possible causes		Remedies
Gas tap is closed	⇒ Yes	1. Open the gas tap.
↓ No		
Air in the gas pipe.	⇒ Yes	1. De-aerate the gas pipe.
↓ No		
Inlet pressure too low.	⇒ Yes	1. Contact the gas company.
↓ No		
No ignition	⇒ Yes	1. Replace the ignition probe.
↓ No		
No spark. Ignition unit on gas unit faulty	⇒ Yes	1. Check the cabling. 2. Check the spark probe 3. Replace the ignition unit.
↓ No		
Gas-air control not adjusted properly.	⇒ Yes	1. Check the adjustment, see Gas-air control.
↓ No		
Fan faulty	⇒ Yes	1. Check the wiring. 2. Check the fuse. 3. Replace the fan if necessary.
↓ No		
Fan blockage	⇒ Yes	1. Clean the fan.
↓ No		
Gas valve faulty	⇒ Yes	1. Replace the gas valve. 2. Re-adjust the gas valve, see Gas-air control.

8.3 Burner ignites with much noise

Possible causes		Remedies
Inlet pressure too high.	⇒ Yes	1. The house gas meter may be faulty. Contact the gas company.
↓ No		
Incorrect ignition distance.	⇒ Yes	1. Replace the ignition probe. 2. Check the ignition probe distance.
↓ No		
Gas-air mixture not adjusted properly.	⇒ Yes	1. Check the adjustment. See Gas-air control.
↓ No		
Weak spark.	⇒ Yes	1. Replace the ignition probe. 2. Replace the ignition unit on the gas valve. 3. Check the ignition spark gap.



8.4 Burner resonates

Possible causes		Remedies
Inlet pressure too low.	⇒ Yes	1. The house gas meter may be faulty. Contact the gas company.
↓ No		
Re-circulation of the flue gases.	⇒ Yes	1. Check the flue gases and air supply.
↓ No		
Gas-air mixture not adjusted properly.	⇒ Yes	1. Check the adjustment, see Gas-air control.

8.5 No heating (CH)

Possible causes		Remedies
Room thermostat/weather-dependent control not closed or faulty.	⇒ Yes	1. Check the wiring. 2. Replace the thermostat. 3. Replace the weather-dependent control.
↓ No		
No voltage (24 V).	⇒ Yes	1. Check the wiring according to the diagram. 2. Check the connector x4. 3. Replace defective controller
↓ No		
Pump does not run.	⇒ Yes	1. Check the voltage. 2. Check the connector x4. 3. Replace defective pump. 4. Replace defective controller.
↓ No		
Burner does not operate on CH: - Sensor S1 or S2 faulty.	⇒ Yes	1. Replace sensor S1 or S2. See Fault code display: 1 or 2.
↓ No		
Burner does not ignite.	⇒ Yes	1. See Burner does not ignite.

8.6 Reduced output

Possible causes		Remedies
At high speed, the power has decreased by not more than 5%.	⇒ Yes	1. Check appliance and flue system for pollution. 2. Clean appliance and flue system.

8.7 CH does not reach the correct temperature

Possible causes		Remedies
Room thermostat settings not correct.	⇒ Yes	1. Check the setting and adjust if necessary: set to 0.1 A.
↓ No		
Temperature set too low.	⇒ Yes	1. Raise the CH temperature, see CH operation. 2. Check the outside sensor for short circuit: remedy this..
↓ No		
Pump does not run well. Pump setting too low.	⇒ Yes	1. Raise the pump setting or replace the pump.
↓ No		
No circulation in the system.	⇒ Yes	1. Check for circulation: at least 2 or 3 radiators must be open.
↓ No		
The boiler power is not set well for the system.	⇒ Yes	1. Adjust the power, see Setting maximum CH power.
↓ No		
No heat transfer due to scaling or pollution in the heat exchanger.	⇒ Yes	1. Descale or flush the heat exchanger on the CH side.

Table 6. NTC resistances

NTC 12 kOhm					
T [°C]	R[ohm]	T [°C]	R[ohm]	T [°C]	R[ohm]
-15	76020	25	12000	65	2752
-10	58880	30	9805	70	2337
-5	45950	35	8055	75	1994
0	36130	40	6653	80	1707
5	28600	45	5522	85	1467
10	22800	50	4609	90	1266
15	18300	55	3863	95	1096
20	14770	60	3253	100	952