Off-Grid Energy Ltd
New Zealand
www.offgridenergy.co.nz

Service Bulletin ***No. 018***

Exhaust overtemp fault (2)

Date of issue:
11-01-2016

Reason :
WhisperGen exhaust temperature is higher then the alarm set point for more then 5 seconds.

Possible causes:

1. Burner is running too hot (low nitrogen pressure of wrong air/fuel mixture)
2. Burner seal is leaking (very hot exhaust gases are escaping)
3. Exhaust temperature reading is wrong (bad contact or faulty sensor)

The trouble shooting procedure to deal with cause 3 is outlined below.

If the fault is related to the exhaust temperature sensor, it is likely that the engine will not come to a complete shutdown. In case the (faulty) temperature is giving a reading higher then the actual exhaust temperature, the fan will keep running and continue to try and lower the exhaust temperature below the 150˚C shutdown set point.

A first indication for temperature sensor functionality can be reached by comparing the temperature of the burner outside and the exhaust temperature reading. If the burner is hand warm but the reading shows 1000˚C, then obviously the reading is wrong.

The actual exhaust temperature reading can be found in the EXTRA INFO MENU on the display unit. See Menu Structure below for directions.

For a functioning system, disconnecting the temperature sensor should give an exhaust temperature reading between 1200-1300˚C.

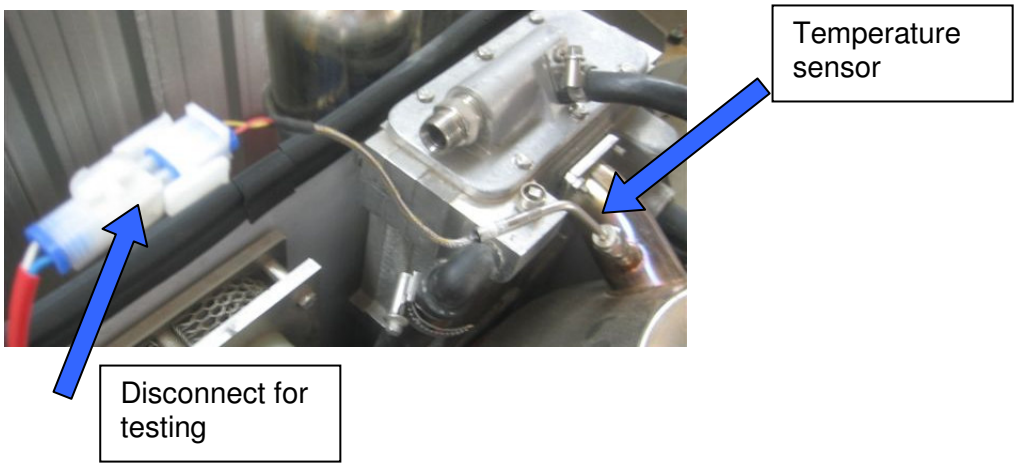

Fig. Expected reading

If a similar reading is shown with the sensor still connected, then there is possibly a bad connection of a broken wire. In that case check the wiring all the way into the electronics. The exhaust temperature sensor wiring is connected to the top connector at the right bottom of the electronics. See below.

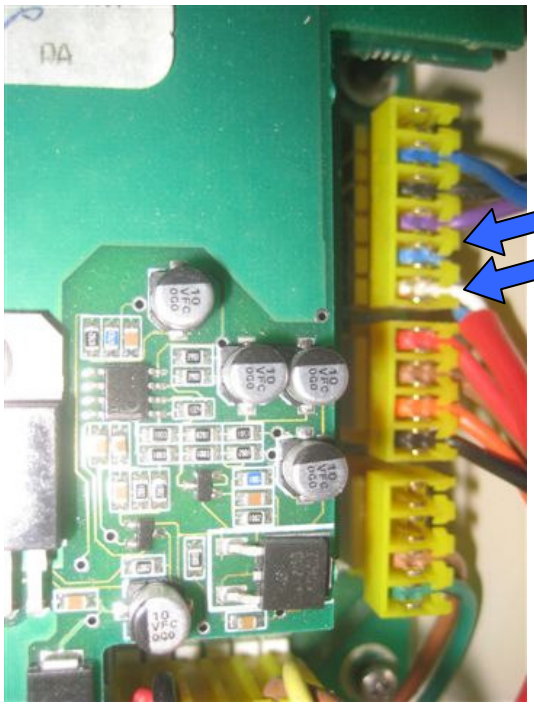
Fig. Wiring inside electronics

If disconnecting the sensor give the expected result and no bad connections or broken wires can be found, then most likely the sensor is faulty and needs replacing.

The Exhaust Temperature sensor part number is WP-1034-000

Menu structure to access Exhaust Temperature reading