Technical Bulletin

Product: Greenstar 1000 Combi

AIR PURGE MODE

To minimise the amount of air trapped in the heat exchanger during pressurisation of the heating system, you must ensure the cap on the auto air vent inside the boiler has been loosened prior to filling.
Due to the vertical orientation of the heating coils in the type of heat exchanger that is used in Greenstar 1000 boilers, it is vital that there is as little resistance as possible on the heating system whilst the appliance is carrying out its initial air purging sequence.
The heat exchanger requires high water velocity to ensure air is properly removed and pushed into the heating system, to be vented through radiators. To assist the purging sequence, you must make sure that there are sufficient radiator valves (Lockshield & wheel-head or TRV) fully open, and that any system bypass is closed.

ONE AIR PURGE CYCLE:

Runs the pump for 6 seconds at 55% in CH.

Stops the pump for 4 seconds.

Runs the pump for 6 seconds at 100% in CH.

Stops the pump for 4 seconds.

Moves the Diverter Valve to the HW position and repeats the cycle.

INITIAL AIR PURGE will start after the boiler is powered on or power cycled off/on and runs this cycle 12 times which will take approximately 9 minutes.

SUBSEQUENT AIR PURGES will be carried out after the next ten heating or hot water demands. These subsequent air purges will only run 1 cycle and last for approximately 45 seconds.

Error code 213: If the boiler appears to stick in air purge mode after the initial sequence has completed, then it may be caused by a high delta T between the flow and return sensors. If the Delta T exceeds 32°C, then error code 213 will be triggered which will cause the boiler to re-start the full air purge cycle. Subsequent air purge mode will not be completed after a 213 error code has been released.

If this error code is triggered, please ensure that both sensors are clipped securely onto the flow & return pipes, there are no valves closed that could prevent circulation, and that there is sufficient flow through radiators to purge air from the appliance.

Error code 341: Error code 341 may occur if there is poor circulation through the heat exchanger. 341 is triggered by the flow temperature sensor detecting too fast a temperature rise after burner start.
If this occurs, then we would advise to ensure good flow around the heating system and put the boiler into air purge mode by powering the appliance off/on.

Error code 2964: It is also possible that error code 2964 may occur due to poor/no circulation. This is triggered if no temperature rise is detected by the flow sensor when the burner fires and would also indicate that there may be air trapped in the heat exchanger.
If this occurs, then we would advise to ensure good flow around the heating system and put the boiler into air purge mode by powering the appliance off/on.

A full air purge will also be triggered when the system is repressurised after a low pressure lockout has occurred. Subsequent air purge mode will not be completed after a low pressure lockout has been released.

Worcester Bosch, Cotswold Way, Warndon, Worcester WR4 9SW
Technical Support: 0330 123 3366 | technical-advice@uk.bosch.com