

Vitocrossal 200 CI2 O2 Probe and Burner Training

Applies to: Vitocrossal 200, CI2 399 - 2000 MBH

Serial number: All ranges

Symptoms:

It is recommended that the Vitocrossal 200, CI2 Should run through the process of O2 probe and burner training at commissioning of the appliance and after the annual maintenance procedure has been completed. This will also be recommended after replacing certain components including the O2 probe, Burner control unit (BCU), E-Box, fan, gas valve, cleaning a dirty air filter and altering any distances on intake or exhaust components. This will be done on every burner independently.

Cause:

The boiler may experience fault codes for improper combustion until it has learned its installation environment.

Resolution:

Train the O2 probe and burner calibration.

The cause of some faults have many reasons. [Service manual link](#)

Train the burner to the current O2 probe by running the burner for between 2 and 6 minutes (with any demand), perform a regular shut down before the fault appears (remove the demand). Repeat up to 5 times until the burner can run for more than 10 minutes without the fault occurring.

Following steps should be followed on each burner.

- 1) Going to the main menu
- 2) Navigate to the service menu
- 3) Input the password: viservice
- 4) Navigate to the actuator test tile and enter the screen (Note: Actuator test will time out after 30 minutes, which could occur in the middle of a burner firing)
- 5) Turn on all system and boiler pumps, ensure all valves are open
- 6) Use the actuator test to put the boiler into minimum firing rate
- 7) After ignition has been established, run the burner from 2 to 6 minutes and then set the burner value to OFF. Ensure there is no flame loss for this duration.
- 8) Wait one minute
- 9) Repeat step 6 and 7 for a total of three times (beware of the system temperature by monitoring the temperature gauge and ensure the system does not fault on high limit)
- 10) Now complete on maximum fire rate
- 11) Complete steps 6 and 7 on high modulation in actuator test for a total of two times cycling the burner on for 2 to 6 minutes and waiting one minute in between.
- 12) After five total burner cycles (three in low fire and two in high fire)
- 13) And as long as no fault codes have become present, that burner is now trained.
- 14) Repeat this process for all burners

*It is possible to achieve this process in low fire for all five trials if the system cannot handle the added BTU's. It is recommended when possible to operate the two trials at high fire and ensure the boiler temperature does not trip the high limit.

When operating the burner training on a lag boiler in a cascade setup:

- 1) Power down the Lead boiler to create a communication fault on all the lag boilers. Once the fault appears on the lag boiler display press the red triangle sign
- 2) Look at the fault list
- 3) Press the wrench icon on the lower portion of the display
- 4) Enter the password: viservice
- 5) Repeat steps 4 to 14 in instructions above