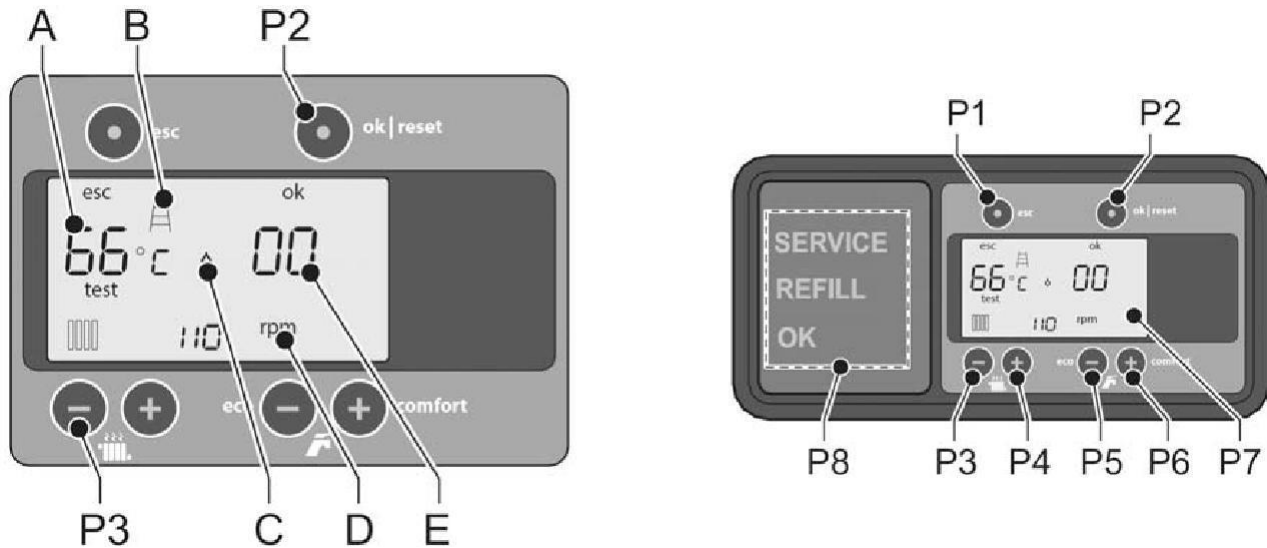




## Technical Bulletin- C/H140 Nuisance Error 01 and 08

In certain cases, Eco King has found that the C/H140 Model boilers can produce nuisance Error 01 and 08 codes. Below is the remedy for a manual calibration in order to resolve the nuisance errors.



- A: Flame impedance and temperature value**
- B: Ladder symbol: calibration menu**
- C: Flame symbol: ignition. The unit burns**
- D: Speed (rpm/10)**
- E: Boiler capacity (%)**

### Manual Calibration Process

1. Start the Heating system or open the hot water faucets to create as much demand as possible.
2. Connect the flue gas analyzer to the appliance. It is preferred to measure the flue gases with mounted front cover. To enable that, use an external sampling port in the vent system, just above the appliance. Or in case this point would not be available, remove the flue gas sensor at the top of the heat exchanger and insert the probe.

#### Warning

Make sure the flue gas analyzer connection point is closed after performance of the calibration procedure. Failure to do so may result in serious injury or death.

3. Simultaneously press [P2] and [P3] until the text 'test' appears in the display.
  - The 'ladder' symbol flashes in the display.
  - The fan speed (rpm) increases until the start speed is reached. The display shows the speed of the fan.
  - The capacity of 100% flashes on the right in the display. 1 and 00 appear alternately in the display.
  - The starter current is determined and the boiler ignites. The 'flame' symbol and the text 'ok' appear when the flame is stable.



4. Check the CO2 percentage on the flue gas analyzer. The percentage must be 9.0% (+/- 0.3%) for natural gas. For LPG it must be set to 10.0% (+/-0.3%)

a.) In case the CO2 value is not within tolerance, the value must be adjusted. By pressing [P3] or [P4] the flame impedance is shown. Use [P3] for increasing the CO2 value. Use [P4] for decreasing the CO2 value.

b.) When the CO2 value is within tolerance and OK is present on the screen confirm with [P2].

5. The fan adjusts to Ignition speed.

- CO2 setting natural gas 9.0% (+/- 0.3%)

- CO2 setting LPG 10.5% (+/-0.3%)

a.) repeat step 4.

6. The appliance goes to the third and last step (Modulation is 0%).

- CO2 setting natural gas 9.0% (+/- 0.3%)

- CO2 setting LPG 10.0% (+/-0.3%)

a.) Immediately Use [P4] to increase the flame impedance level from 20 to 30 on the left of the screen.

b.) repeat step 4.

7. After accepting the third and last calibration step, the fan of the boiler will continue to run for 10 minutes without firing. This is the final step of the calibration process. During this time the boiler will not respond to any heat request, but parameters and settings can be changed. When "test" leaves the screen, calibration is finished.

\*Note: if 10 minutes fan calibration period is disrupted by disconnection of main power supply, the 10 minutes calibration time will continue as soon as power is restored.

Please call for any assistance during the calibration process

**Western Canada-604-385-3265**

**Eastern Canada-905-334-0651**