

Technical Service Bulletin:

C6 & C7 Error Code Troubleshooting

Models: C1210ESC, C1210ES, C1050ES, C950ES, 940ES, 940ESO, 830ES, 2400ES, 2700ES, 715ES, C800ES, C920ES/ESC, Integra 500, Evolution 500



BOSCH

Introduction



This procedure must be performed by a qualified technician.



DANGER!
120 VAC present in wire connections. Use caution when testing.

Follow the procedures below and report results to Bosch Technical Support. This will assist in determining the cause and solution to the problem.

C6 and C7 error codes

These errors are fan-related error codes with the following explanations:

- ▶ C6 error indicates the primary fan rotation is too low during operation.
- ▶ C7 error indicates there is no primary fan rotation sensed during an attempted start-up.

Primary Fan Assembly

- ▶ The primary fan is a 120 volt AC fan that receives power from the main control board.
- ▶ The primary fan has its own built-in circuit board which relays information and signals back to the control board.

Tools needed:

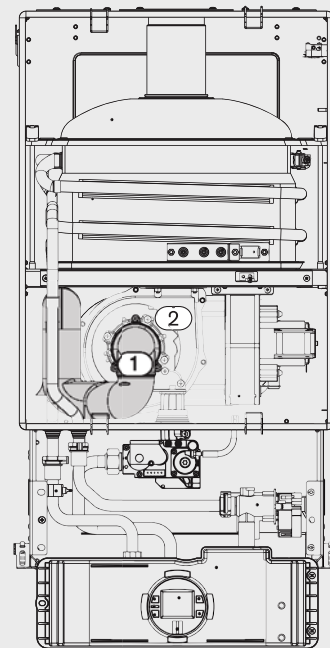
- ▶ Phillips head screwdriver
- ▶ Digital Multi-meter

Procedure

1. Press the reset button on the control panel of the heater to attempt to clear the error code. If the error code does not reset or continues to reoccur, proceed with the following troubleshooting steps.
2. Confirm that the exhaust vent is not blocked and does not exceed the specified maximum length as shown in the installation manual.

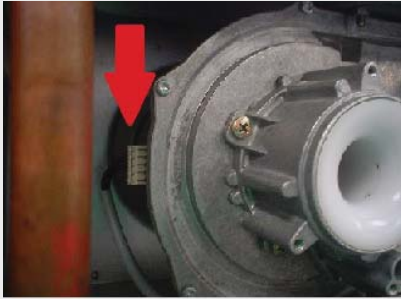
3. Ensure that the 3 foot minimum separation between air intake and exhaust vents is met (applies to a twin pipe vent system).
4. Verify the heater is plugged into a properly grounded 120V AC power supply.
5. Supply the heater with a steady supply voltage. It is recommended to supply electricity from a dedicated electrical circuit with no other major appliances on the same circuit.
6. Shut off power to the heater and unplug from electrical outlet. Remove cover per installation manual.
7. Remove the black plastic intake (Fig.1, pos.1) that is secured with three Phillips head screws to the fan (Fig.1, pos.2).

Figure 1



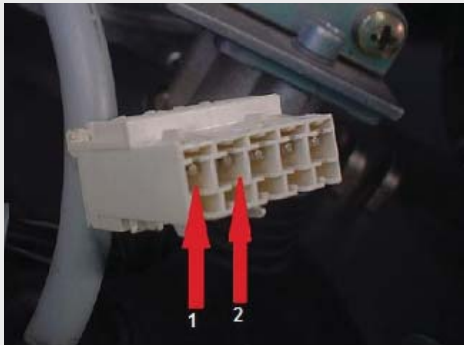
8. Check the wire connection to the fan. The wire connection is located on the back, left hand side of the fan housing. (Fig. 2).

Figure 2



9. Check that the wire connections to the control board are firmly attached to the board. Removal of the lower access cover on the control board is required. Refer to Bulletin TWH-G3-24.
10. Remove wire connection from back of fan, plug in heater and turn power on with water shut off. Check for voltage AC on the plug between the 1st and 2nd pin. You should find 120VAC (Fig. 3)

Figure 3



- a. If the plug shows 120 VAC between the pins, the primary fan needs to be replaced.
- b. If the plug shows no voltage between the pins; shut power off, disconnect plug from the outlet, and check the 2.5A white fuse inside of the control unit (Fig. 4). Refer to Bulletin TWH-G3-24. If the 2.5A white fuse has continuity, then the control unit needs to be replaced.
- c. If the 2.5A fuse is blown, replace with spare from the back cover of the control unit, remove the connection from the primary fan, and remove both wire connections from the secondary fan (Fig. 5).
- d. Reconnect primary fan only, turn power on, run water for 30 seconds. LEAVE SECONDARY FAN DISCONNECTED

Figure 4



Figure 5



- e. If fan turns on, unit ignites, and/or E4, then shut the power off and reconnect the secondary fan. If C6 or C7 and/or the fuse blows before connecting the secondary fan then the primary fan needs to be replaced.
- f. With both primary and secondary fans connected, turn power on, and run water. If no issues, then just a bad fuse. If the 2.5A fuse blows then the secondary fan needs to be replaced.



After completing this procedure, please call us while still at the unit at 1-800-798-8161 for diagnosis and resolution. If it is more convenient for you, please email the results of this procedure to ldy.asa@us.bosch.com and we will reply within one business day.



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