

# Display blank, fuse troubleshooting

Models: C1210ESC, C1210ES, C1050ES, C950ES, 940ES, 940ESO, 830ES



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## Introduction

The following procedures are for gathering information to assist Bosch Tech Support in determining the cause and solution to the problem.

Fuse failure can be caused by problems inside or outside the heater. Fuses should not be replaced until the cause of failure is found and corrected. Fuses are all 250V:

F1 fuse is T2.5A,

F2 fuse is T1.6A.

## Tools needed:

- ▶ Voltmeter/multimeter

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## If display is blank and fan is not running:

1. Confirm that the on/off switch is in the on position.
2. Check for correct voltage supply at receptacle: 120VAC, 60HZ.
3. Check for dedicated outlet: heater must not be plugged into a receptacle on a circuit shared with other appliances or into an extension cord.
4. Check for correct grounding of outlet. Use of an outlet tester or electrician is recommended.
5. Check for power surges, electrical storms or other failed electronic devices in building. If surges or storms are frequent, installation of surge protection is recommended. Consult local electrician for proper equipment selection and installation.
6. Unplug heater power cord, remove heater cover (see manual), remove control unit (see service bulletin *Replacing the Control Unit*). Remove control unit cover to expose circuit board. Check for signs of burns or scorching. Also check power cord connections for loose or shorted wires.
7. Remove wire connector(s) from control unit circuit board for fan(s).
  - a. connector with 2 black and 1 green/yellow wires is for secondary fan, connector with 5 black wires is for primary fan.
  - b. Check fuse continuity with ohmmeter. Replace failed fuse(s), plug heater power cord into outlet and check fuse for failure. If fuse fails, replace control unit.
8. Press power button to supply power to control unit. Check display for normal operation (may show error code such as E9). Turn power on, if no display or fuse fails, replace control unit.
9. Press power button to off position to disconnect power to control unit. Connect wire connection for primary fan. Turn power on, if fuse fails, replace primary fan or entire heater.
10. Check secondary fan for free rotation and intact bushings.
  - a. If fan does not rotate freely, check for and remove obstruction.
  - b. If fan bushings are broken, replace secondary fan.
  - c. If OK, connect wire connection for secondary fan to circuit board. If fuse fails, replace secondary fan.
11. If fuse does not fail with all connectors connected to circuit board, cause may be transient (power surge, etc) with no damage to heater.



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