



## Replacement of the 30000208 Printed Circuit Board and/or Touch Keypad.

### Instructions for the Andong ADL 2000M 2007 fireplace insert.

**These instructions are intended for the servicing of the Heat Surge fireplace with an Andong ADL 2000M 2007 fireplace insert. Only authorized trained technicians should use this manual to perform the service needed. There is risk of electrical shock, burn and fire when performing service to the insert & technician assumes these risks.**

**Scope:** These instructions are for the replacement of the Printed Circuit Board (PCB) and/or the Touch Keypad of the Andong ADL 2000M 2007 fireplace insert. The original PCB and Touch Keypad are no longer being manufactured, however Heat Surge offers replacement with the following parts:

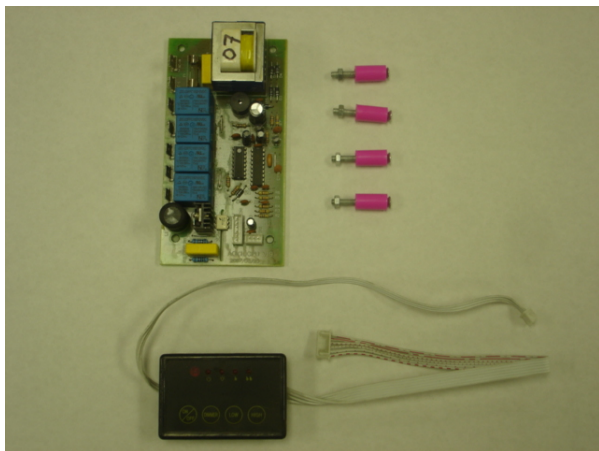
Printed Circuit Board (Modern X5C), Heat Surge PN #30000208

Touch Keypad, Heat Surge PN #30000210

Dual element heater, Heat Surge PN #30000216

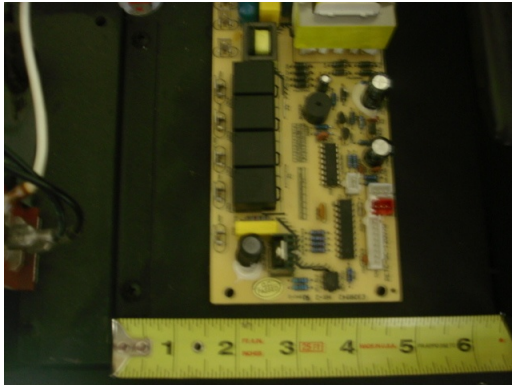
#### Instructions:

- 1) With 110vac removed, remove the front grill and top panel of the fireplace insert. Be careful not to lose any hardware associated, it will be reused.
- 2) Remove the (6) black leads, (2) white leads and (2) Touch Keypad cables from the PCB.
- 3) Remove the (4) mounting fasteners and standoffs and lift the PCB from the insert. Keep the (4) mounting fasteners and standoffs, they will be reused. ***Refer to Figure 1.***

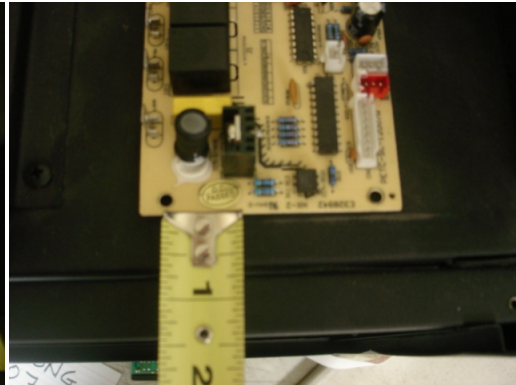


***Figure 1, old PCB, Touch Keypad and standoffs***

- 4) Place the corner of the replacement board, Heat Surge PN #30000208, 1 ½" from the blower mount plate and 1 ½" from the front of the insert. **Refer to Figures 2 and 3.**



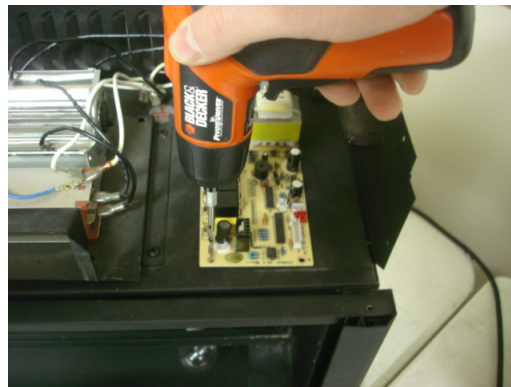
**Figure 2**



**PCB Location**

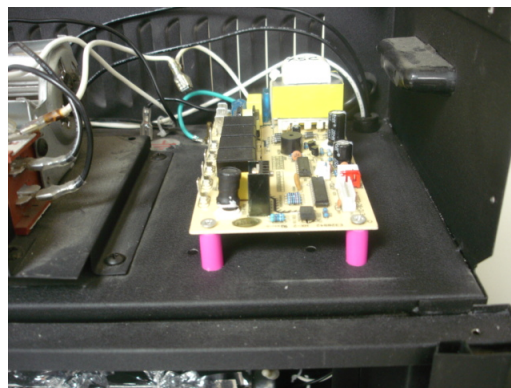
**Figure 3**

- 5) Using the PCB as a template, drill (4) 3/16" holes. **Refer to Figure 4.**



**Figure 4**

- 6) Remove all metal shavings, if any, from the insert and the board.
- 7) Install new board using the (4) fasteners and (4) standoffs referenced in step 3.
- 8) Refer to **Figure 5** for final mechanical installation using the purple standoffs and fasteners. You are now ready to wire the new PCB.



**Figure 5, new PCB installed**

- 9) Connect the PCB positive output leads; Top heater, Bottom heater, Flame motor, Fan motor and Lamps. All (5) outputs are black #16awg leads with a spade female terminal to mate with a male spade terminal. **Refer to Figure 6. Refer to electrical drawings on pages 6 and 7 of this manual.**

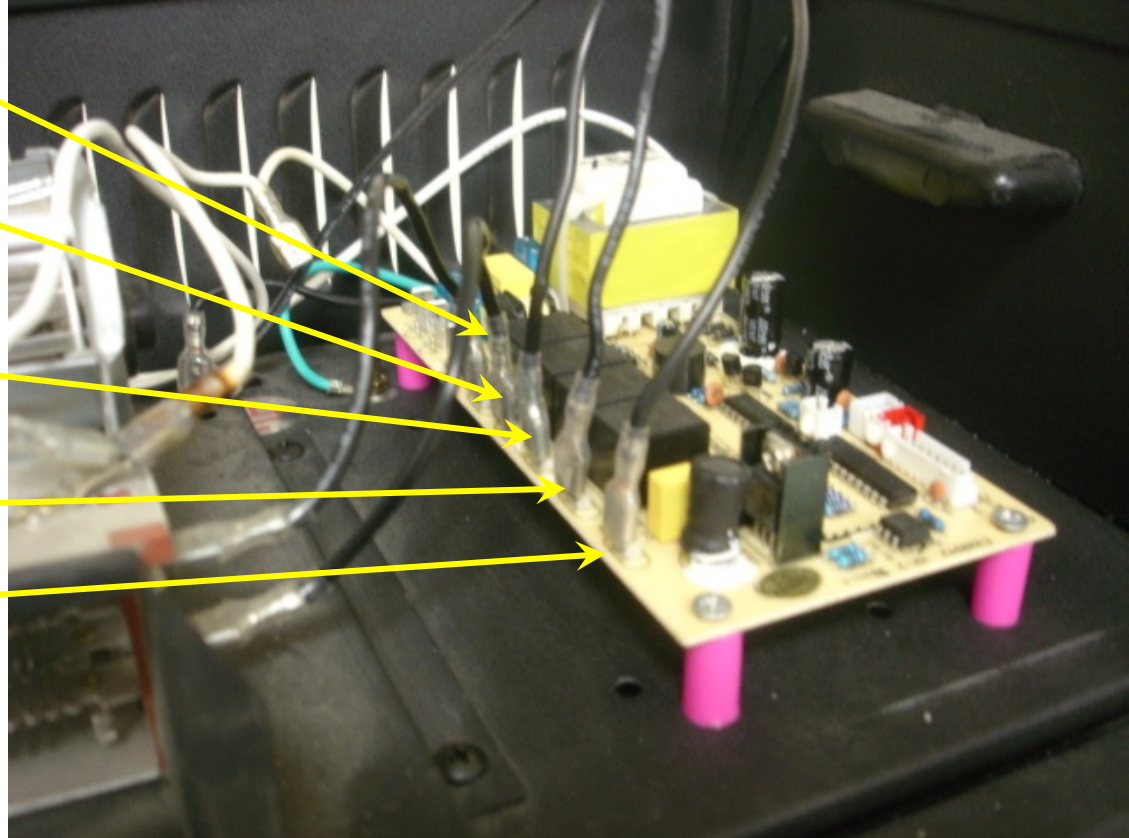
Top heater element positive terminal **750W** (black wire).

Bottom heater element positive terminal **750W** (black wire).

Flame motor positive terminal **FLAME** (black wire).

Fan positive terminal **FAN** (black wire).

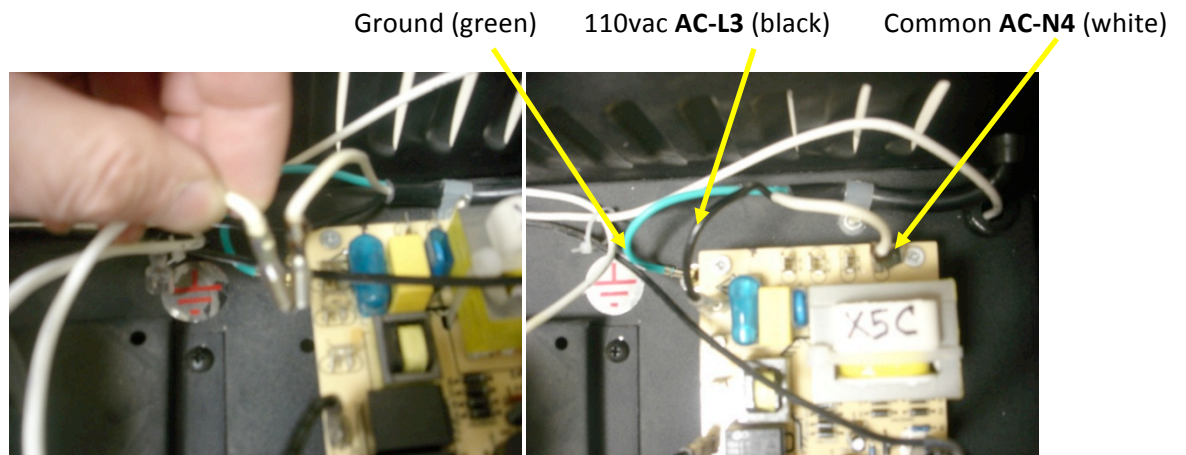
Lamps Positive terminal **LAMP** (black wire).



**Figure 6, output terminal wiring**



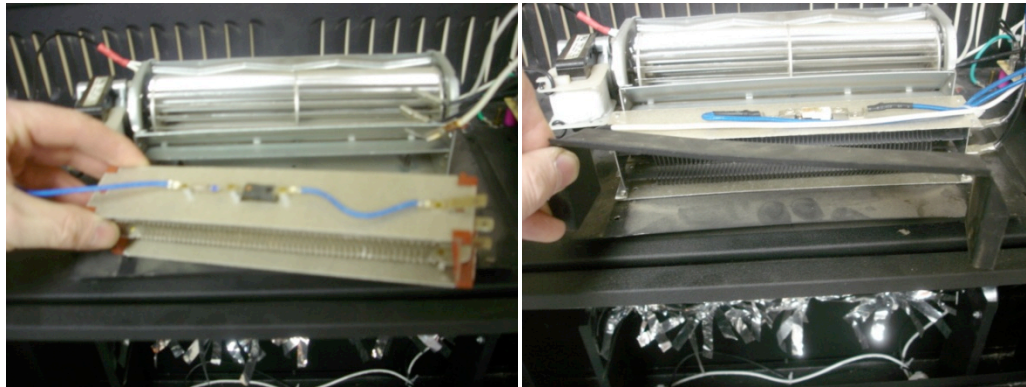
- 10) Wire in the 110vac supply power to the board. First break up the (2) white commons as shown in **Figure 7**. The (2) white commons are incoming power common and the fusible link. Place the fusible white common off to the side for now and connect the white power common to terminal **AC-N4**. Connect the 110vac incoming power positive black wire to terminal **AC-L3**. Connect the incoming case ground green wire to case ground. **Refer to Figure 8. Refer to electrical drawings on pages 6 and 7 of this manual.**



**Figure 7**

**Figure 8**

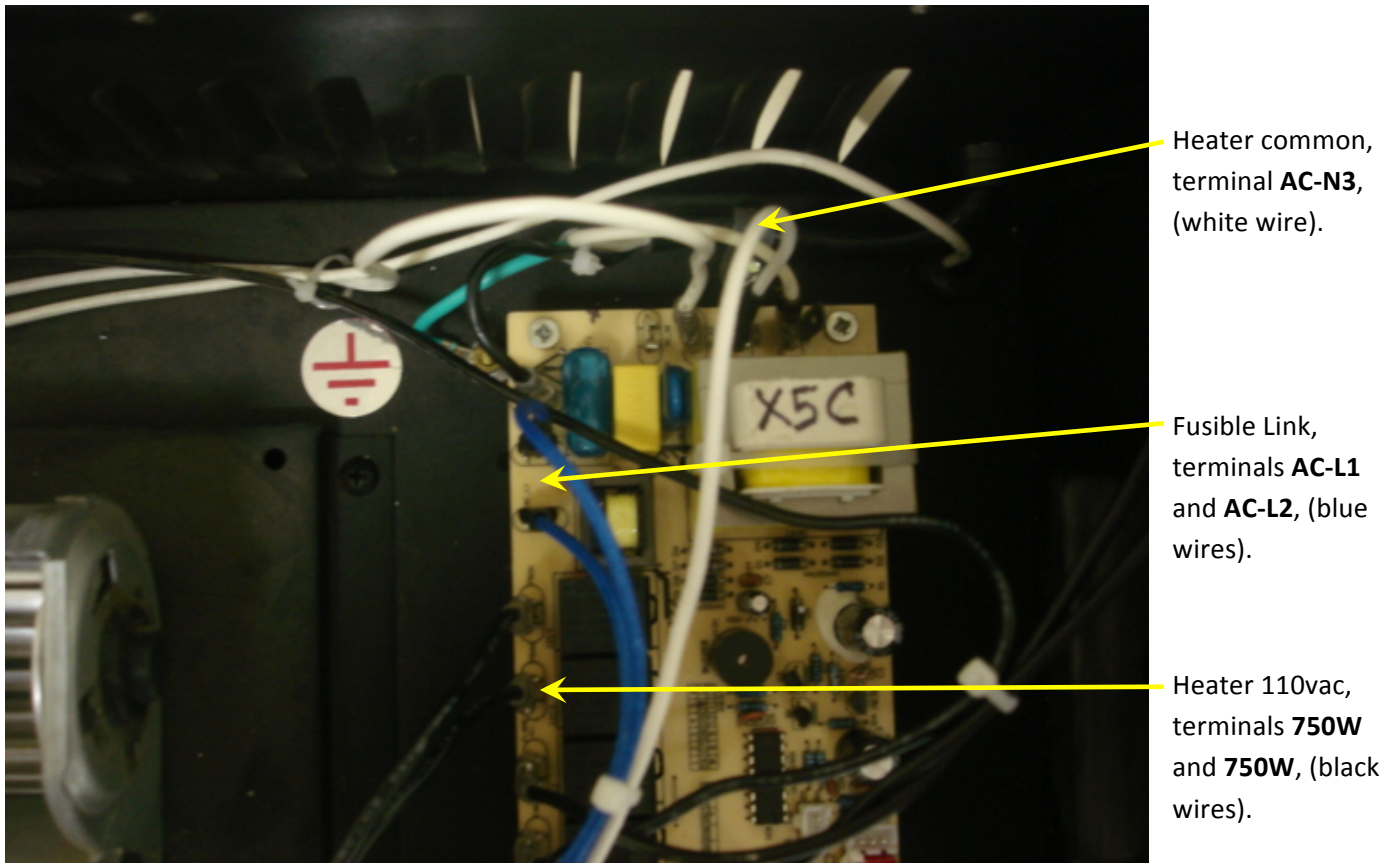
- 11) Installation of the dual element heater with fusible link heat sensor. The first step is to remove the existing dual element heater with fusible link heat sensor. Disconnect the (2) black leads from the heater assembly. Remove the (2) fasteners holding the heater to the blower assembly. Remove the (2) fasteners holding the heater vent to the insert. **Refer to Figure 9 and Figure 10.**



**Figure 9**

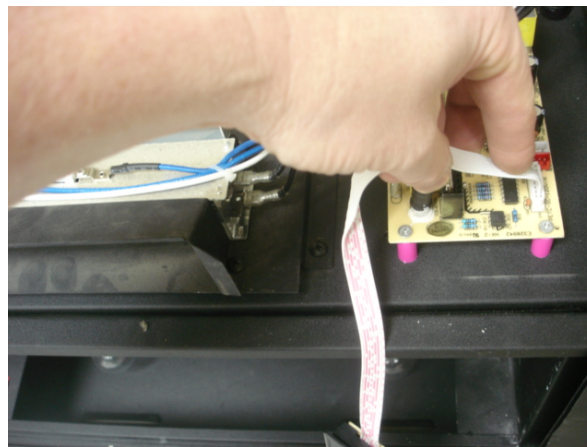
**Figure 10**

- 12) Install the new dual element heater with fusible link heat sensor. Mount the heater and heat vent using the same (4) fasteners as described in step 11. Using the same (2) black leads as described in step 11, wire the top heater coil to terminal **750W** and the lower heater coil to the other terminal **750W** both located on the new PCB. Wire the heater white common lead to terminal **AC-N3** located on the new PCB. **Refer to Figure 11. Refer to electrical drawings on pages 6 and 7 of this manual.**
- 13) Wire in the bi-metal heat sensor. Locate the (2) blue leads supplied with the new heater assembly and wire them to terminals **AC-L1** and **AC-L2** on the new PCB. **Refer to Figure 11. Refer to electrical drawings on pages 6 and 7 of this manual.**



**Figure 11**

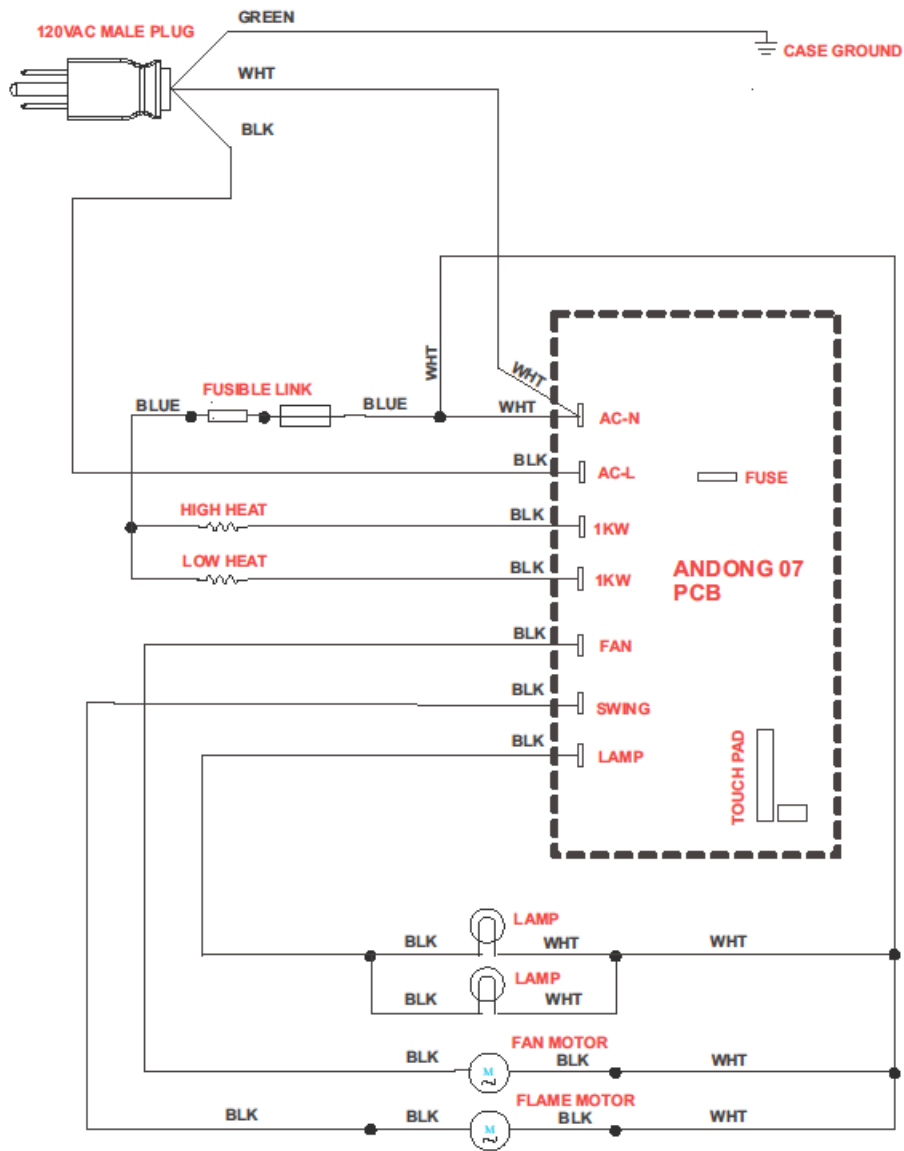
14) Install the new touch keypad on the new PCB. **Refer to Figure 12.**



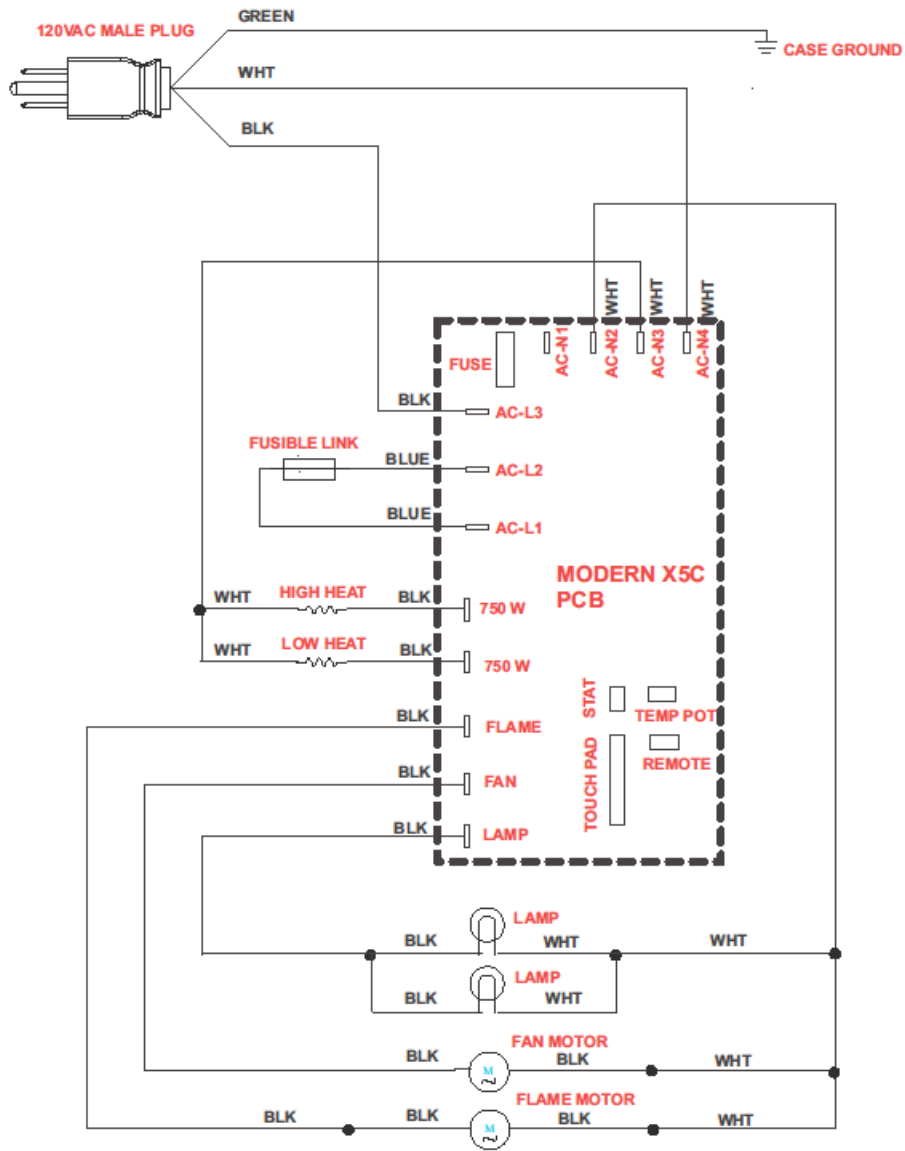
**Figure 12, touch keypad installation**

15) Tie wrap all wire leads and clean all debris that may have accumulated during installation. Plug insert into 110vac source and wait for audible tone. Test all functionality on the insert and the remote control.

16) Remove 110vac power. Install front grill and top panel. Installation is complete.



Andong ADL 2000M 2007 Fireplace Insert Electrical Drawing, **(BEFORE repair)**



**Andong ADL 2000M 2007 Fireplace Insert Electrical Drawing, (AFTER repair)**