



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

### Instructions for the Andong ADL 2000M 2009 fireplace insert.

These instructions are intended for the servicing of the Heat Surge fireplace with an Andong ADL 2000M 2009 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.

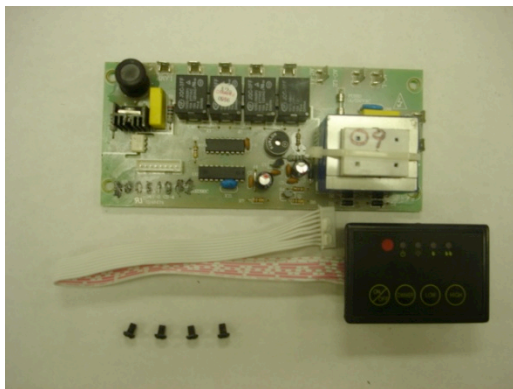
**Scope:** These instructions are for the replacement of the Printed Circuit Board (PCB) and/or the Touch Keypad of the Andong ADL 2000M 2009 fireplace insert. The original PCB and Touch Keypad are no longer being manufactured, however Heat Surge offers replacement with the following parts:

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

Touch Keypad, Heat Surge PN #30000210

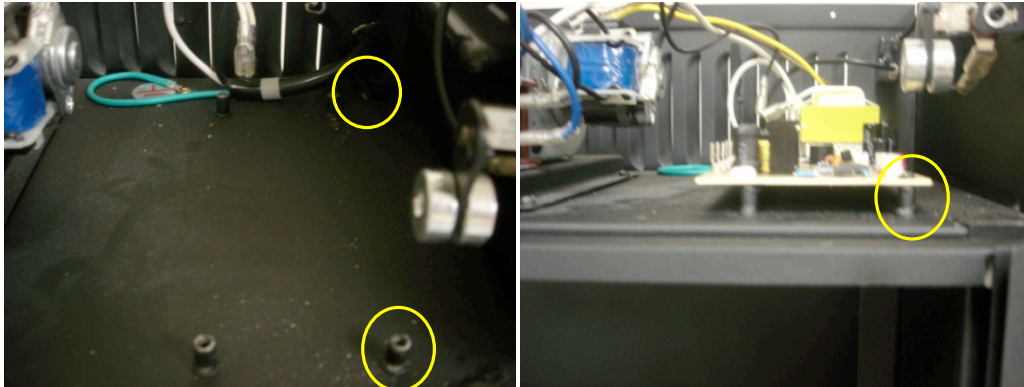
#### Instructions:

- 1) With 110vac removed, remove the front grill and top panel of the fireplace insert. Be careful not to lose any hardware associated, they will be reused.
- 2) Remove the (12) leads and (1) Touch Keypad cable from the PCB.
- 3) Remove the (4) mounting fasteners and lift the PCB from the insert. Keep the (4) mounting fasteners, they will be reused. **Refer to Figure 1.**



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

- 4) Use the (2) welded standoffs located on the right hand side. Mount the PCB using (2) of the fasteners from step 3. **Refer to Figures 2 and 3.**

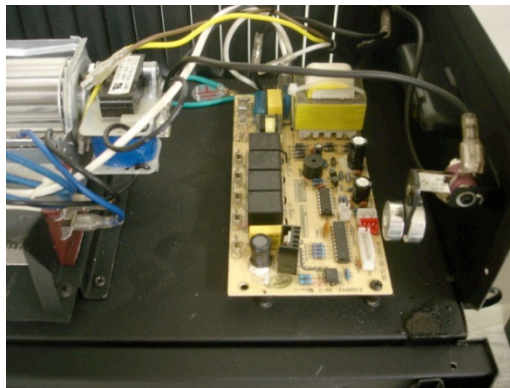


**Figure 2**

**PCB Location**

**Figure 3**

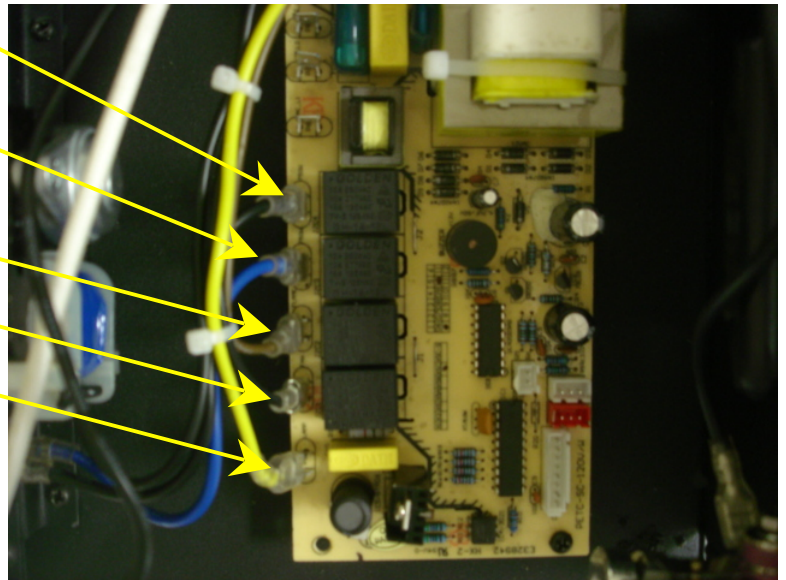
- 5) Refer to **Figure 4** for final mechanical installation. You are now ready to wire the new PCB.



**Figure 4, new PCB installed**

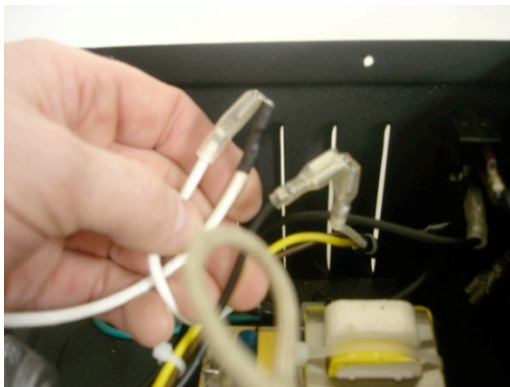
- 6) Connect the PCB positive output leads; Top heater, Bottom heater, Flame motor, Fan motor and Lamps. All (5) outputs are #16awg leads with a spade female terminal to mate with a male spade terminal. **Refer to Figure 5. Refer to electrical drawings on pages 6 and 7 of this manual.**

- Top heater element positive terminal **750W** (black wire).
- Bottom heater element positive terminal **750W** (blue wire).
- Flame motor positive terminal **FLAME** (brown wire).
- Fan positive terminal **FAN** (black wire).
- Lamps positive terminal **LAMP** (yellow wire).



**Figure 5, output terminal wiring**

- 7) Wire in the 110vac supply power commons to the board. First break up the (4) white commons as shown in **Figure 6 and Figure 7**. The (2) white commons located on the left in **Figure 6** are the heater and incoming power commons. The other (2) located on the right in **Figure 7** are the commons for the fan, flame motor and lamps. Wire all the commons as shown in **Figure 8**. Refer to electrical drawings on pages 6 and 7 of this manual.

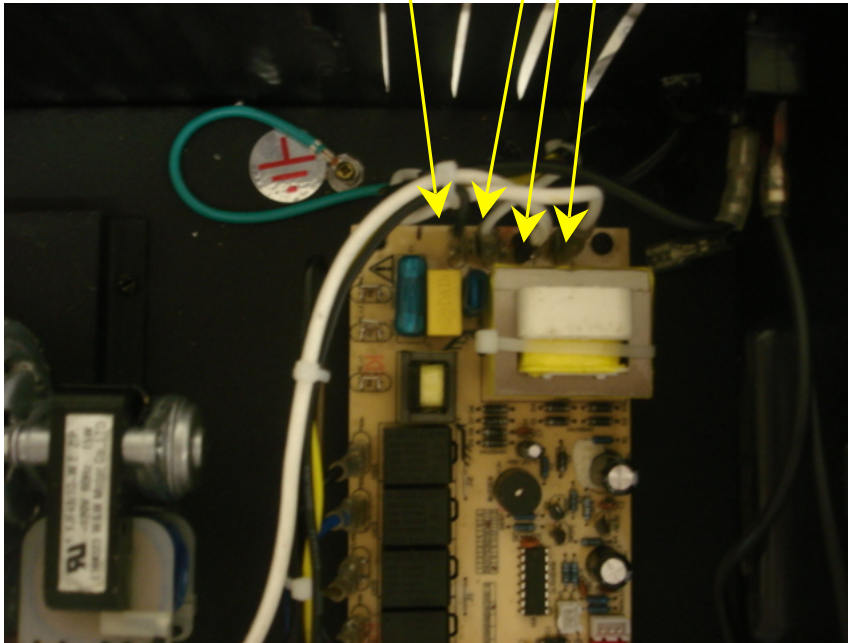


**Figure 6**



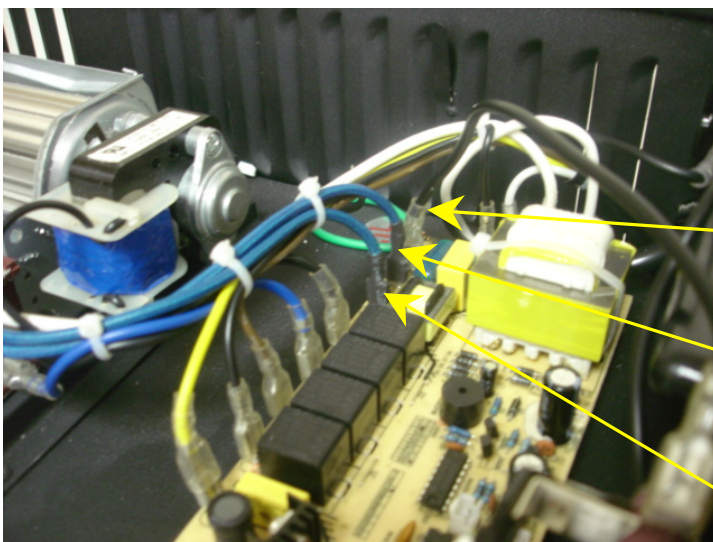
**Figure 7**

- Flame Motor and Lamps Common, terminal **AC-N1** (white wire)
- Fan Motor Common, terminal **AC-N2** (black wire)
- Heater Common, terminal **AC-N3** (white wire)
- 110vac Common, terminal **AC-N4** (white wire)



**Figure 8**

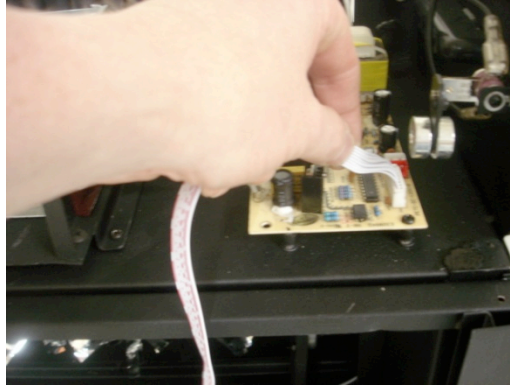
8) Next wire in the 110vac incoming power and the fusible link heat sensor. **Refer to Figure 9. Refer to electrical drawings on pages 6 and 7 of this manual.**



- 110vac incoming power, terminal **AC-L3** (black wire)
- Fusible link heat sensor, terminal **AC-L2** (blue wire)
- Fusible link heat sensor, terminal **AC-L1** (blue wire)

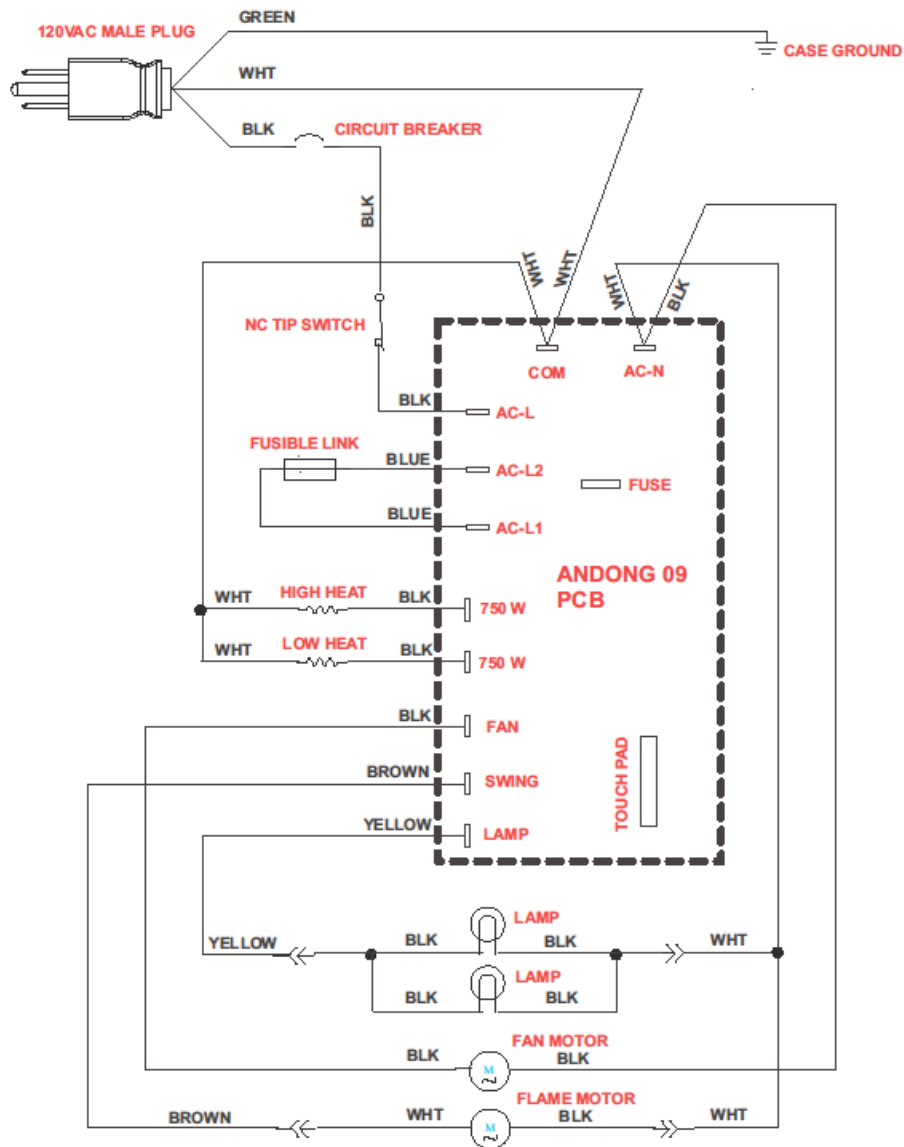
**Figure 9**

9) Install the new touch keypad, Heat Surge PN #30000210, on the new PCB. **Refer to Figure 10.**

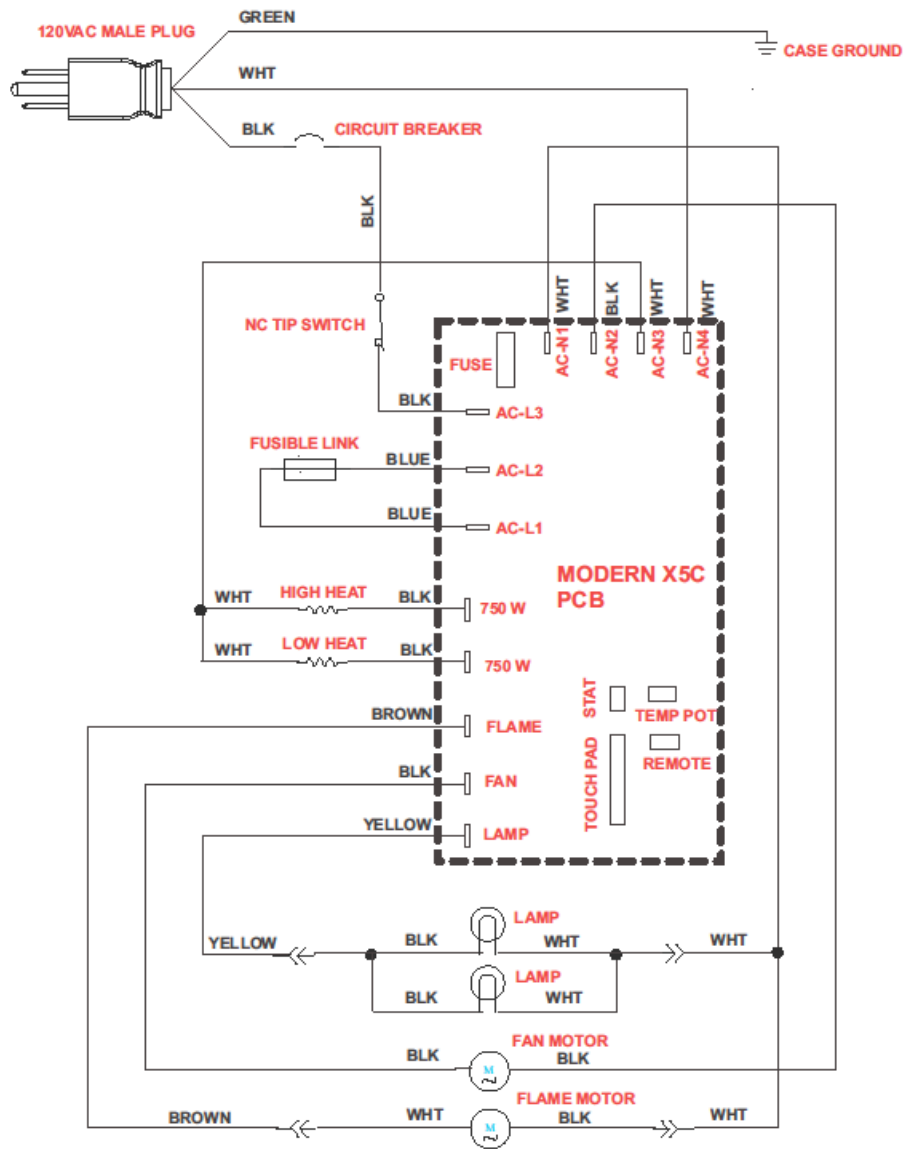


**Figure 10, touch keypad installation**

- 10) 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.
- 11) Remove 110vac power. Install front grill and top panel. Installation is complete.



Andong ADL 2000M 2009 Fireplace Insert Electrical Drawing, **BEFORE repair**



Andong ADL 2000M 2009 Fireplace Insert Electrical Drawing, (AFTER repair)