



SH1500LCD

!! Unplug The Heater Before Servicing!!

(Remember That The Edges Of the Metal Are Sharp. Use Caution)

- A. How To Remove The Center From the Wood Cabinet
- B. How To Replace The Front Display Screen
- C. How To Replace The Temperature Sensor
- D. How To Replace The High Limit Switch
- E. How To Replace The Power Cord
- F. How To Replace The Fan
- G. How To Replace The Circuit Board
- H. How To Replace The Quartz Infrared Heating Elements
- I. Wiring Diagram

**PLEASE CALL CUSTOMER SERVICE
FOR ASSISTANCE:
1-877-467-8643**

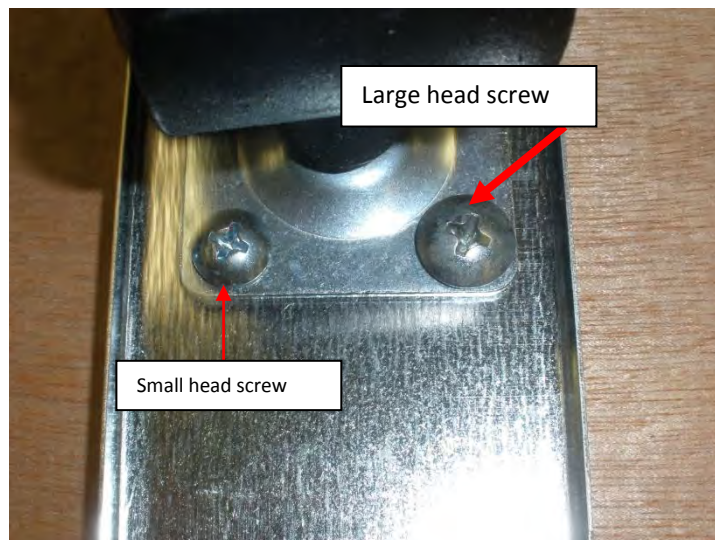
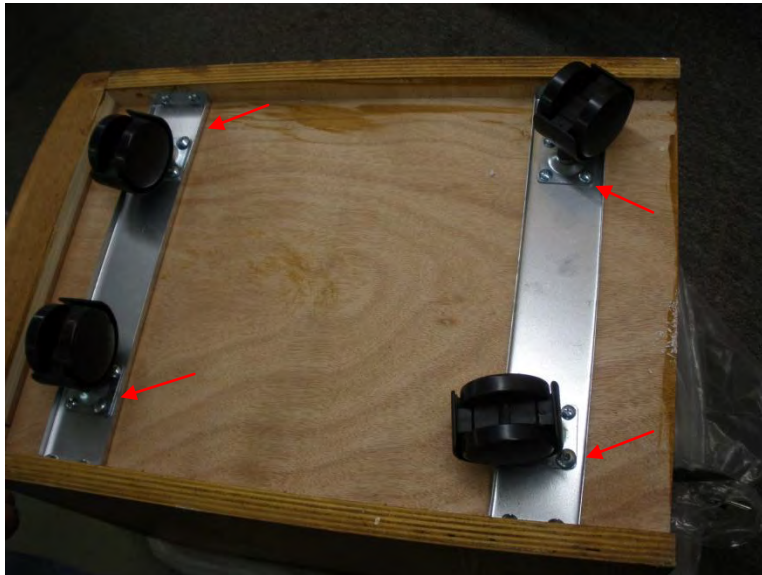
A

How To Remove The Center From The Wooden Cabinet

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To remove the center unit from the wood cabinet there are 4 screws on the bottom of the heater where the casters are located. There is 1 screw in each caster plate that needs to be removed. These screws will have a larger head than the other 3 screws (**SEE PHOTO BELOW FOR SCREW LOCATIONS**).



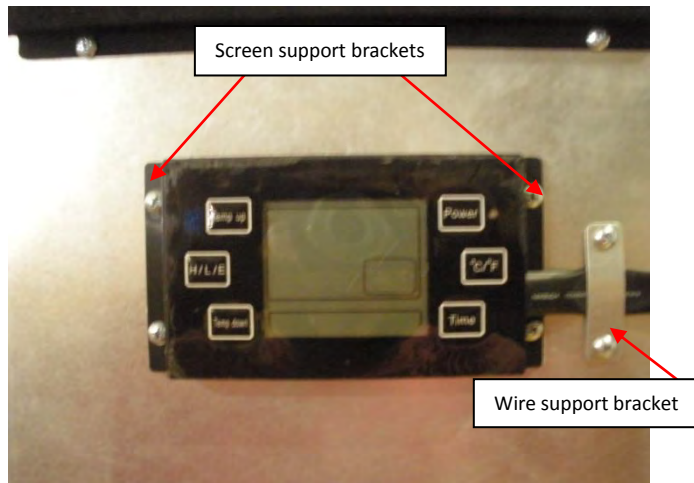
B

How To Replace The Front Display Screen

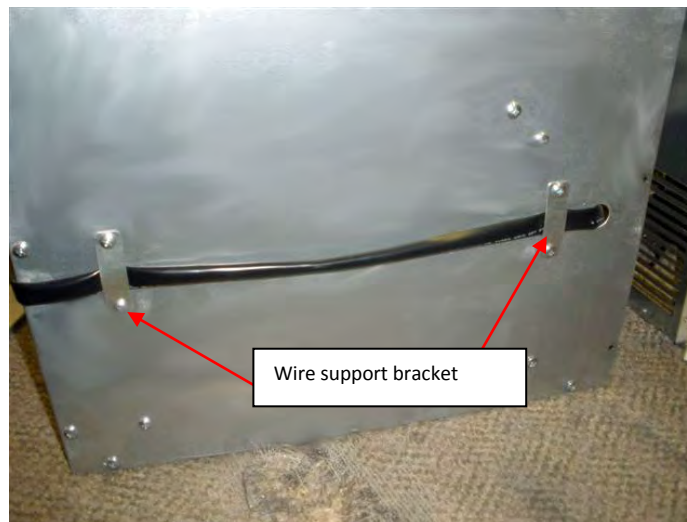
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The center part of the heater will need to be removed from the cabinet. Remove the 2 screen support brackets that hold the screen in place.



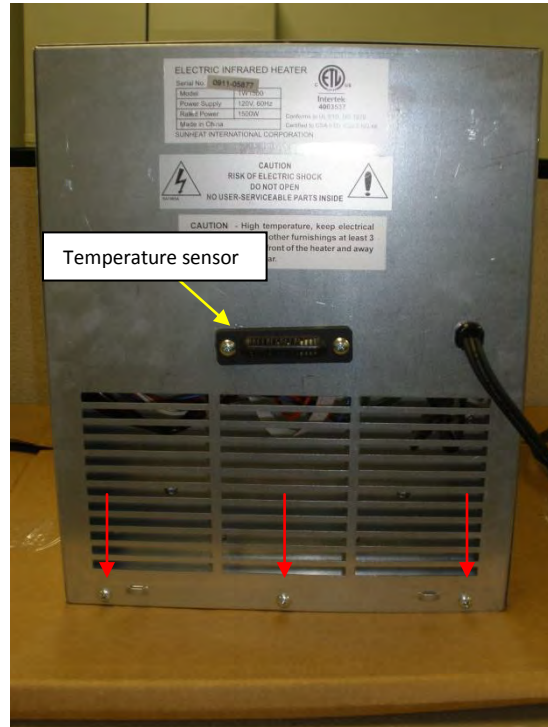
Remove the 3 wire support brackets that secure wire to the unit (1 by the display screen and 2 along the side panel).



B

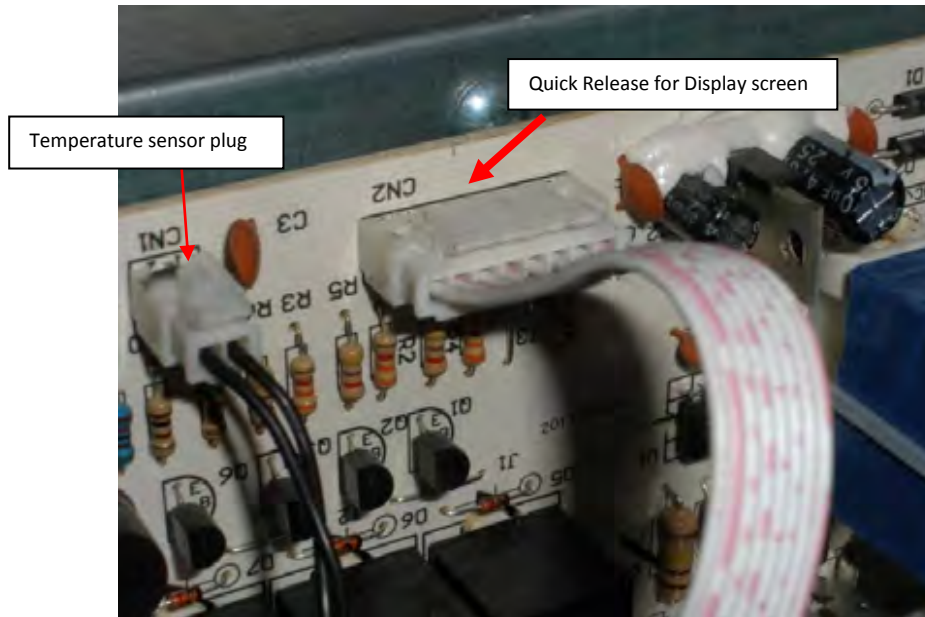
Remove back panel by removing 9 screws. There are 3 screws on each side panel and 3 screws on the bottom of the back panel.

Note: It is recommended that you unplug the Temperature Sensor (labeled: CN1) from the Circuit Board after removing back panel so you have better access.



B

Unplug Display Screen from Circuit Board by pressing down on the “Quick Release” and pulling out.



****When putting new screen in, put screen brackets on first then the wire support brackets.**

*****MAKE SURE TEMPERATURE SENSOR AND DISPLAY SCREEN ARE PLUGGED BACK IN**

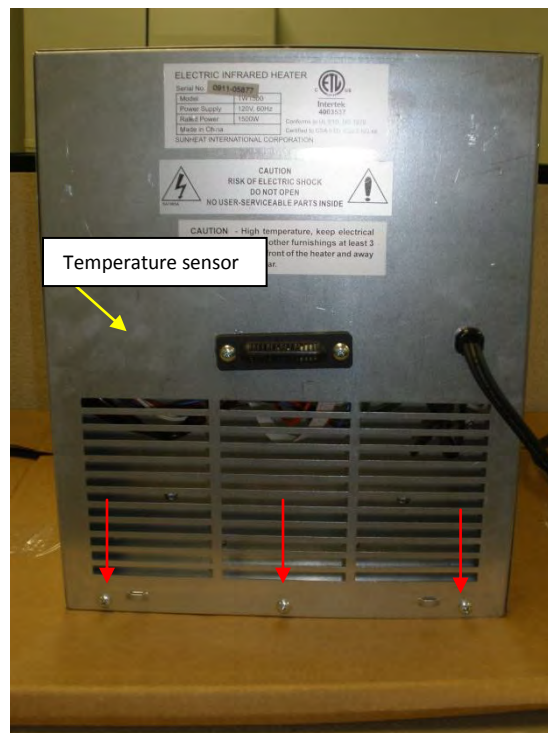
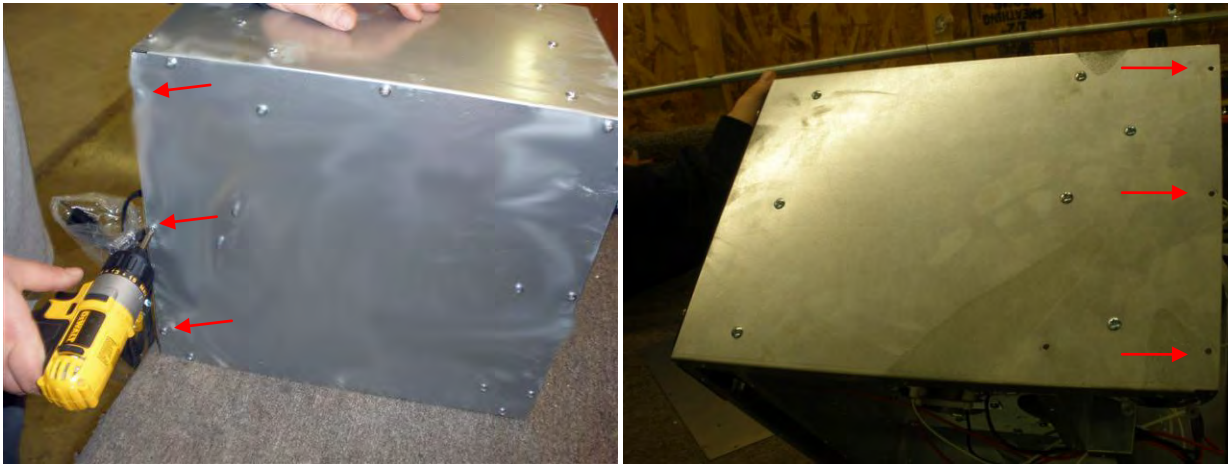
C

Replace Temperature Sensor

!!Unplug The Heater Before Servicing!!

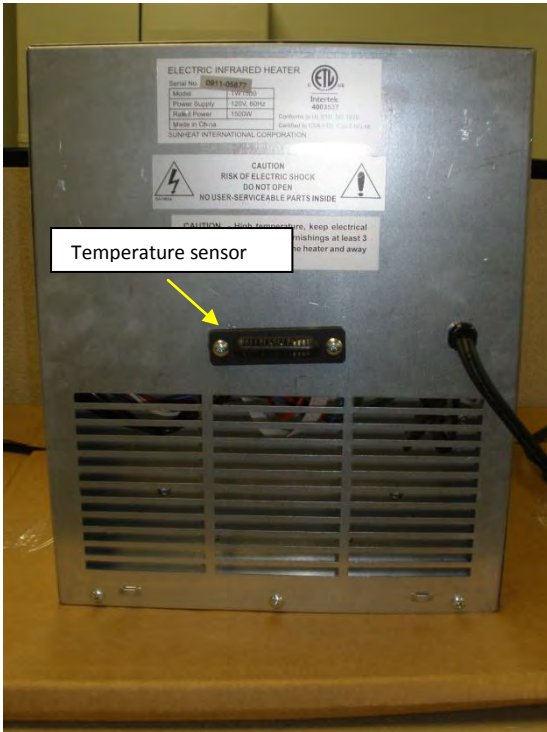
(Remember That the Edges of the Metal Are Sharp. Use Caution)

Remove the back panel by removing 12 screws. There are 3 screws on each side panel, top and bottom of the back panel.

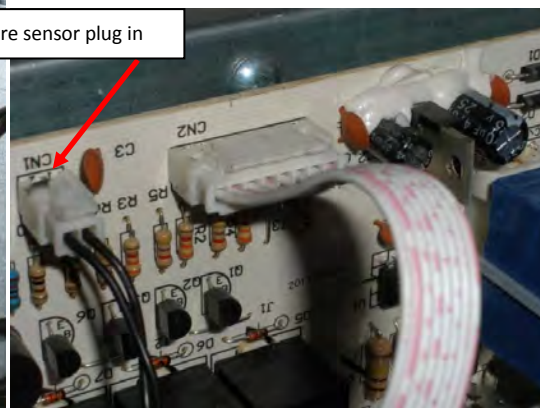
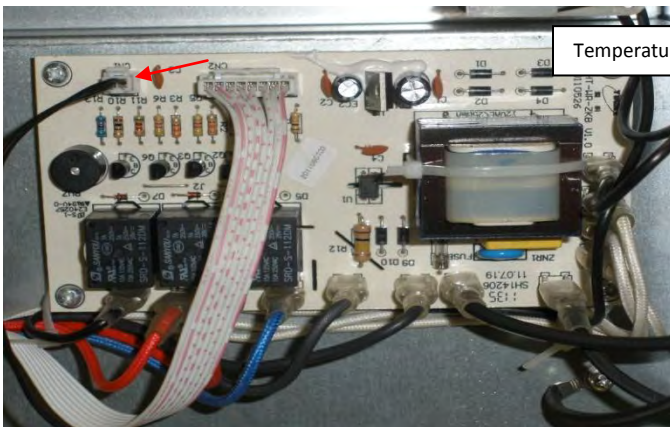


C

Remove 2 screws holding the Temperature Sensor in place on the back panel.



Unplug old temperature sensor (labeled: CN1) and plug new sensor in.



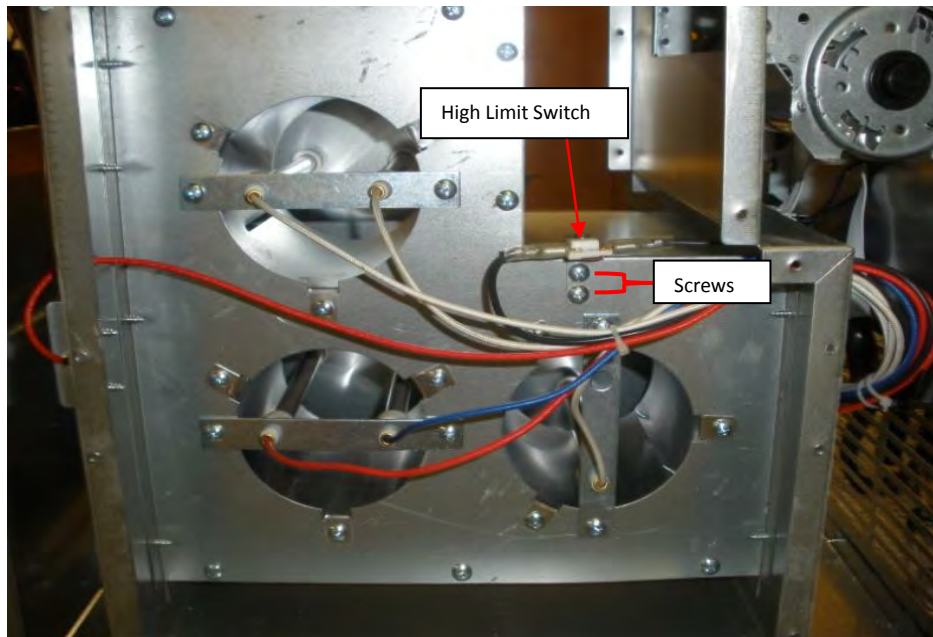
D

How To Replace The High Limit Switch

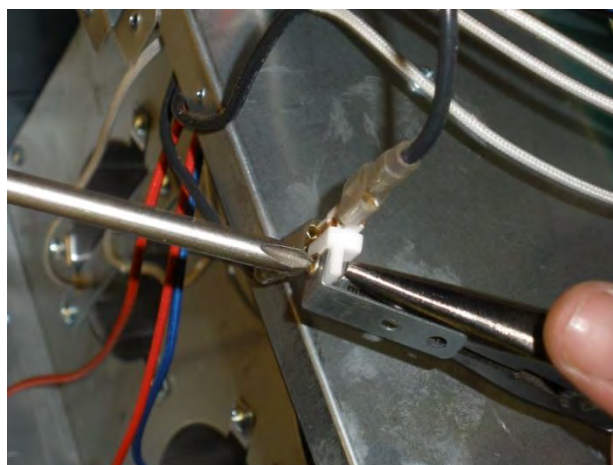
!!Unplug The Heater Before Servicing!!

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The center and front display screen will need to be removed. When facing the back of the heater, remove the left side panel. This is done by removing all the screws. Then remove the 2 screws holding the High Limit Switch in place.



Using a pair of pliers, hold the bolt and then unscrew the small screw holding the High Limit Switch to the bracket.



E

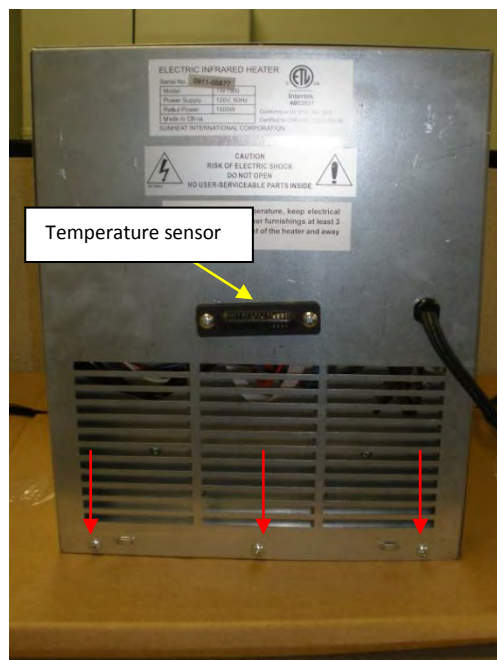
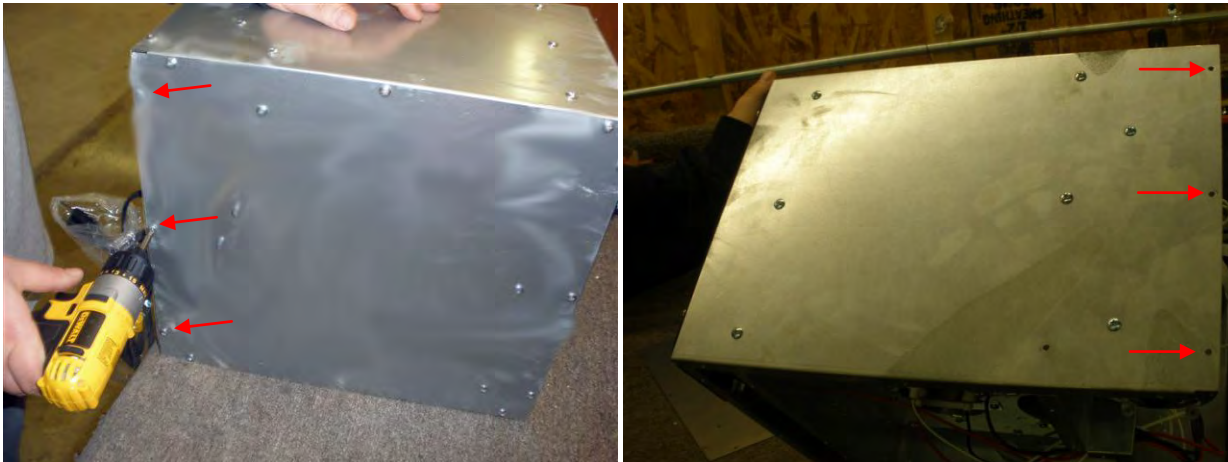
How To Replace The Power Cord

!!Unplug The Heater Before Servicing!!

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Remove the center and front display screen will need to be removed. Remove the back panel by removing 12 screws. There are 3 screws on both side panels and 3 on the top and bottom of the back panel.

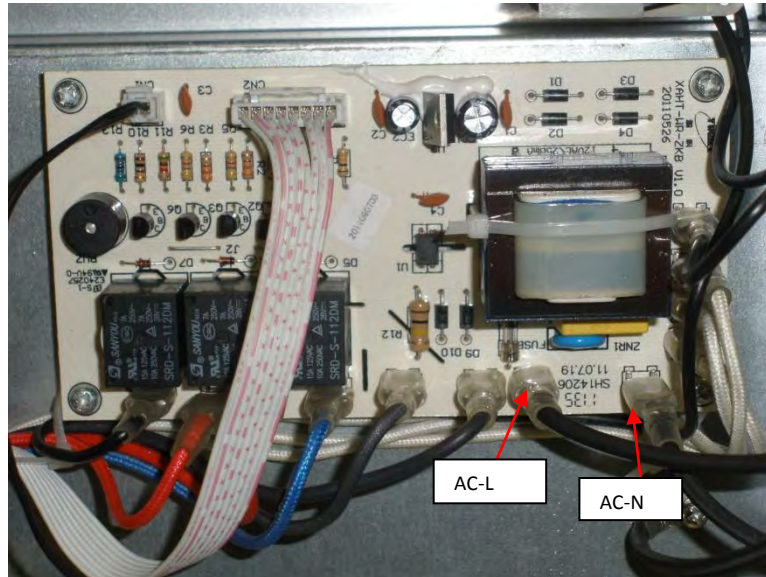
Note: It is recommended that you unplug the Temperature Sensor (labeled: CN1) from the circuit board after removing the back panel so you have better access to the circuit board connection.



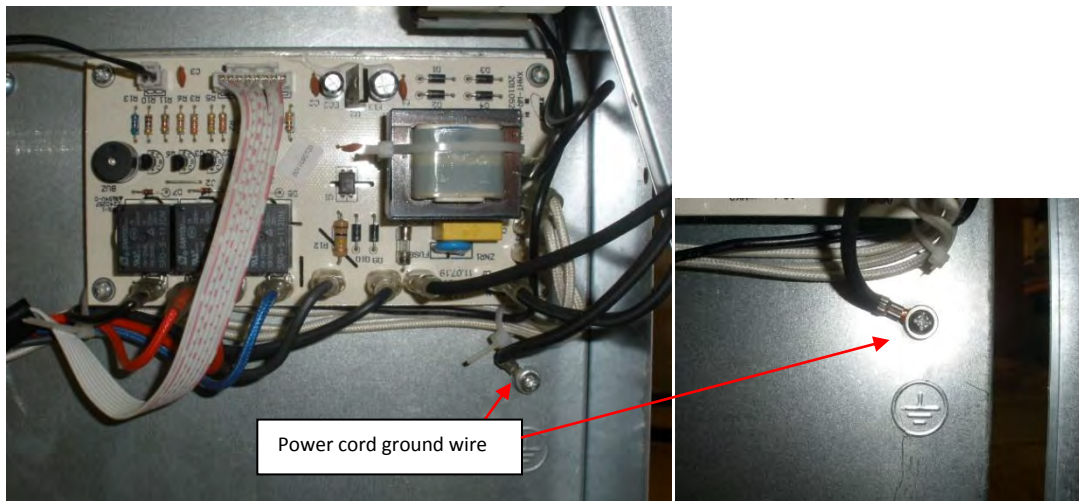
E

Unplug the 2 Power Cord Wires from the circuit board.

They are labeled as: AC-N & AC-L.



Disconnect ground wire from panel.



****When replacing the power cord, the two black wires that connect to the board are universal so it won't matter which goes to AC-N or AC-L. Make sure ground wire is secure.**

*****MAKE SURE TEMPERATURE SENSOR IS PLUGGED BACK IN.**

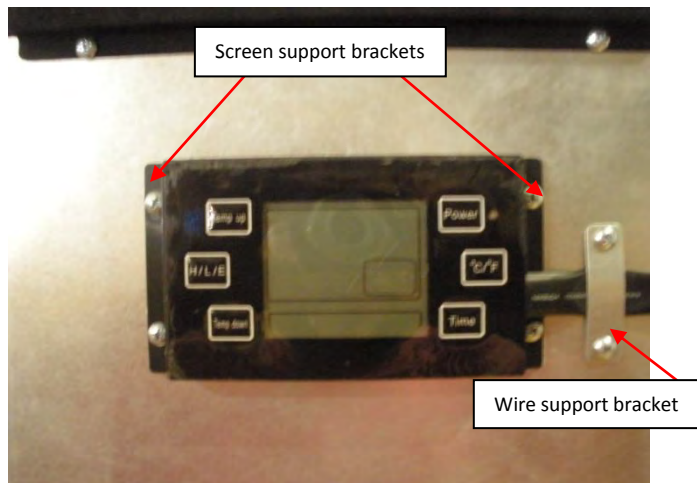
F

How To Replace The Fan

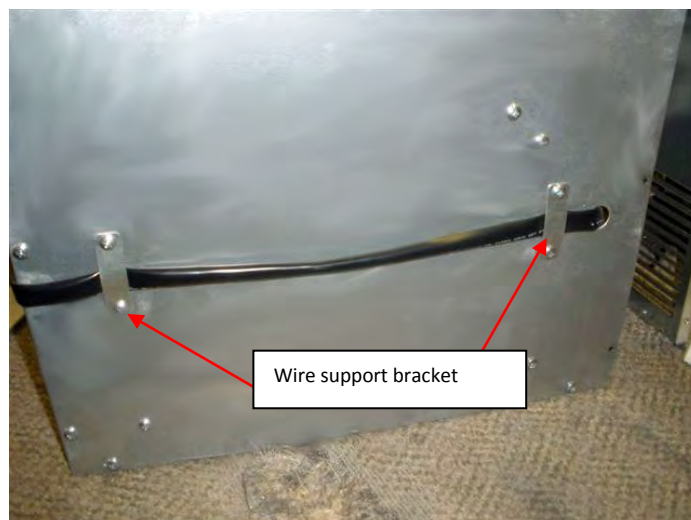
!!Unplug The Heater Before Servicing!!

(Remember That the Edges of the Metal Are Sharp. Use Caution)

Remove both side panels by removing all of the screws. In order to remove the right side panel, you will need to remove the display screen. Remove the 2 screen support brackets that hold the screen in place.



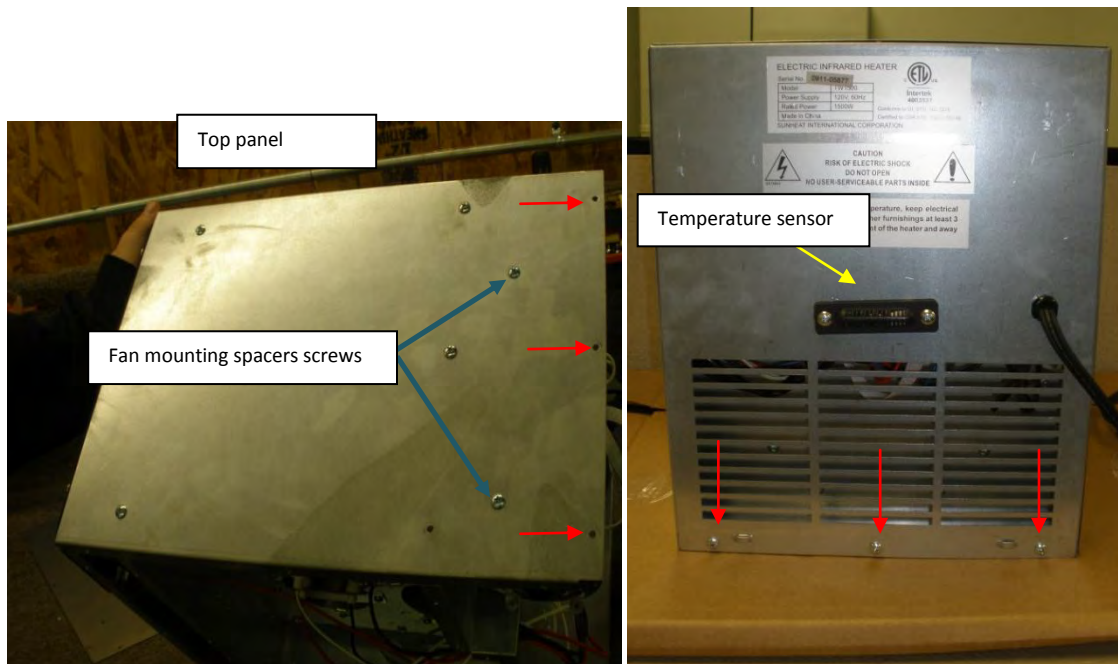
Remove the 3 wire support brackets that secure wire to the unit (1 by the display screen and 2 along the side panel).



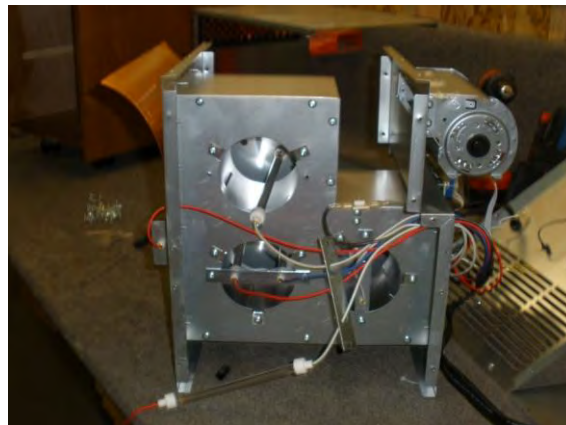
F

Remove the back panel by removing 3 screws on the top and bottom of the back panel (screw locations shown in red). Remove the 2 fan mounting spacer screws (screw locations shown in blue).

Note: It is recommended that you unplug the Temperature Sensor (labeled: CN1) from the circuit board after removing back panel so you have better access to the circuit board connection.



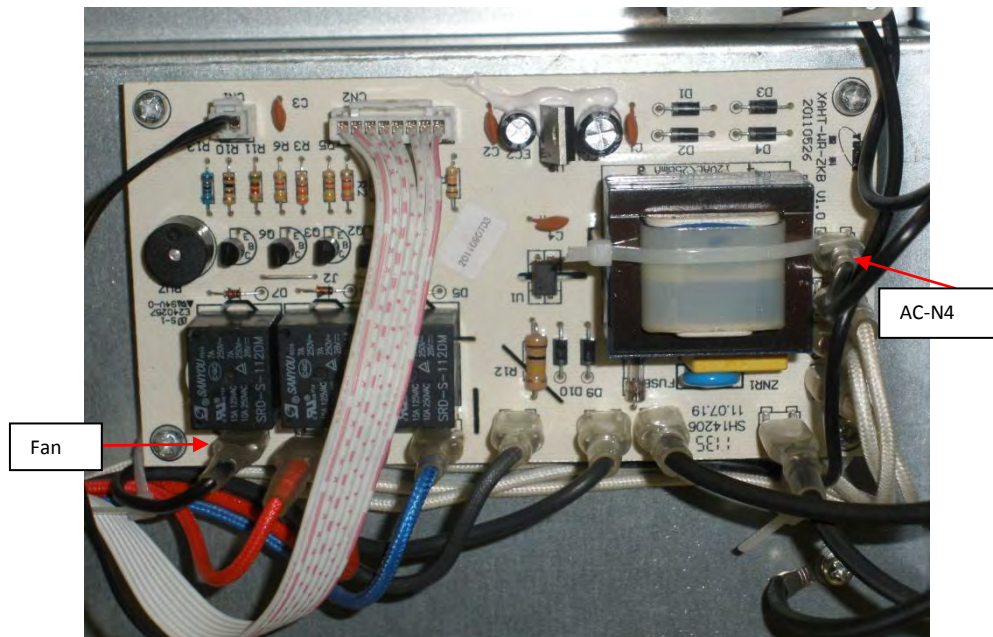
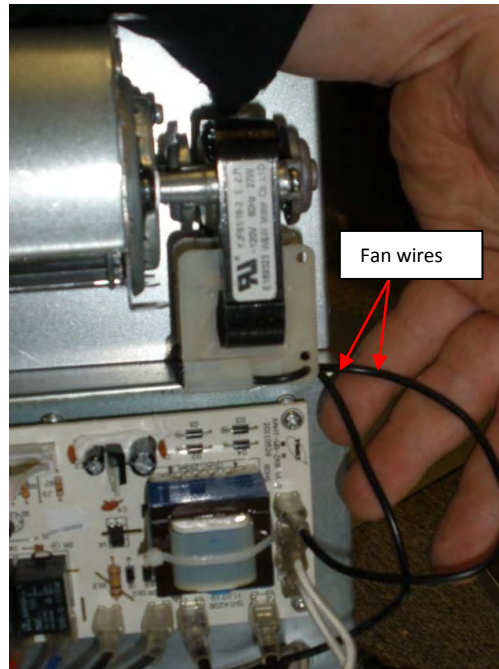
After the side and back panels are removed, remove all the screws on the top panel. The mainframe can then be pulled out to gain full access to fan.



F

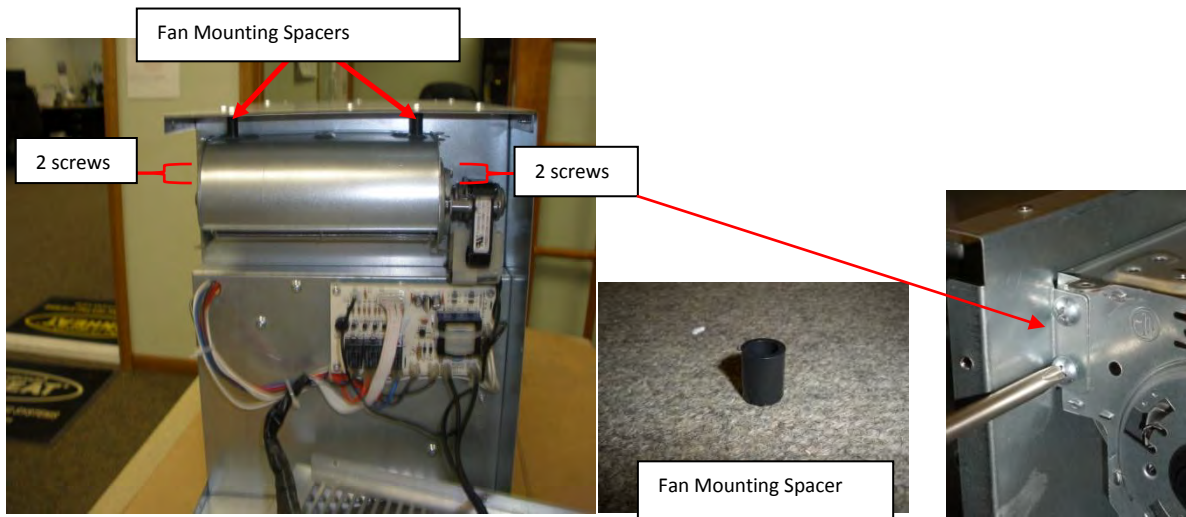
Disconnect 2 wires from the circuit board that come from the fan.

They are labeled as: AC-N4 & FAN



F

Remove the 2 screws on both sides of the fan. These screws hold the fan in place. Remove the Fan Mounting Spacers. **NOTE: DO NOT LOSE THESE!**



Make sure that you put the Fan Mounting Spacers back into place when putting the new fan in. Wires on the fan are universal.



*****MAKE SURE THE TEMPERATURE SENSOR IS PLUGGED BACK IN.**

G

How To Replace The Circuit Board

!!Unplug The Heater Before Servicing!!

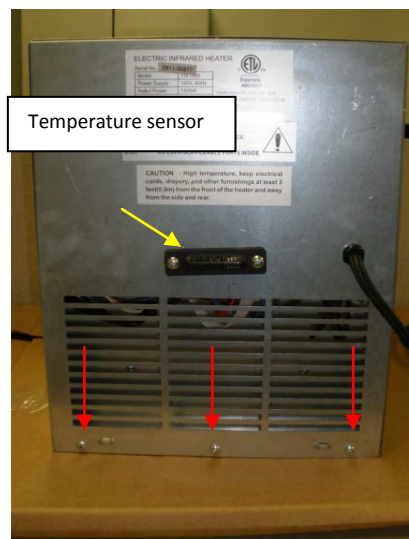
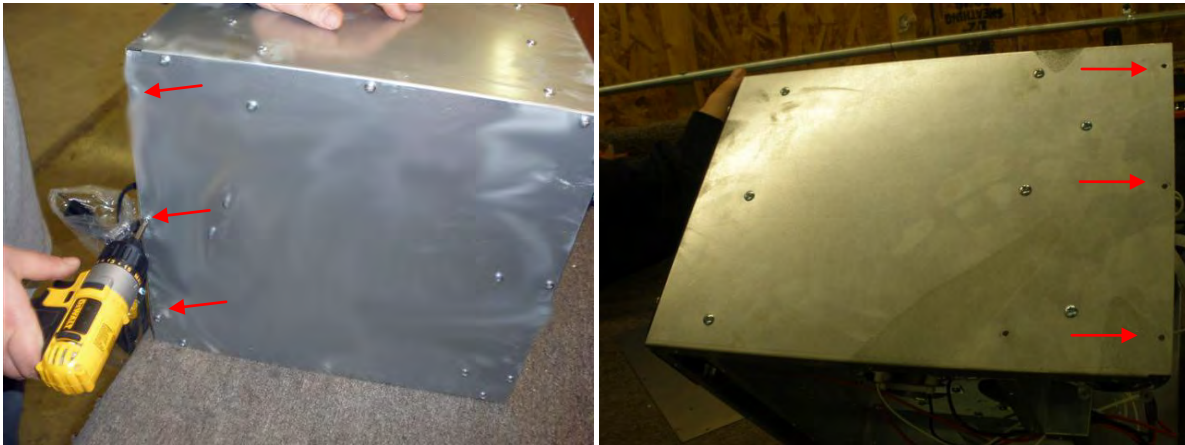
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*****IMPORTANT*****

THE TW1500 HAS 2 DIFFERENT CIRCUIT BOARDS. The board transformer color will depend on what color ribbon you have on the display screen.

- 1.) RED RIBBON ON DISPLAY SCREEN NEEDS A BLUE TRANSFORMER ON CIRCUIT BOARD.
- 2.) BLACK RIBBON ON DISPLAY SCREEN NEEDS A YELLOW TRANSFORMER ON CIRCUIT BOARD

Remove back panel by removing 12 screws. There are 3 screws on both side panels and 3 on the bottom and top of the back panel. **Note:** It is recommended that you unplug the Temperature Sensor from circuit board after removing back panel so you have better access to the circuit board connection.



G

Remove the Circuit Board by removing the 4 screws that hold it in place.

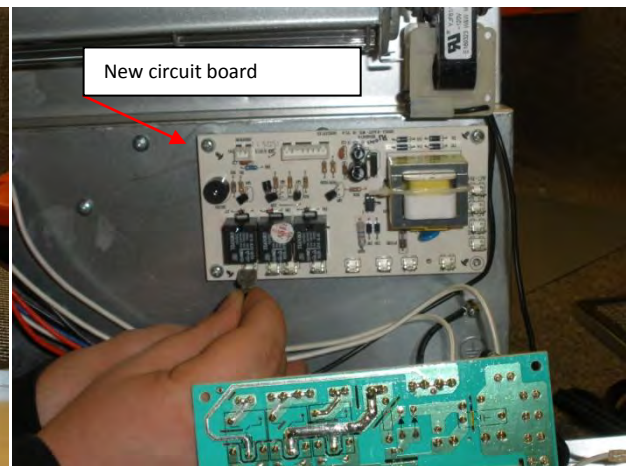
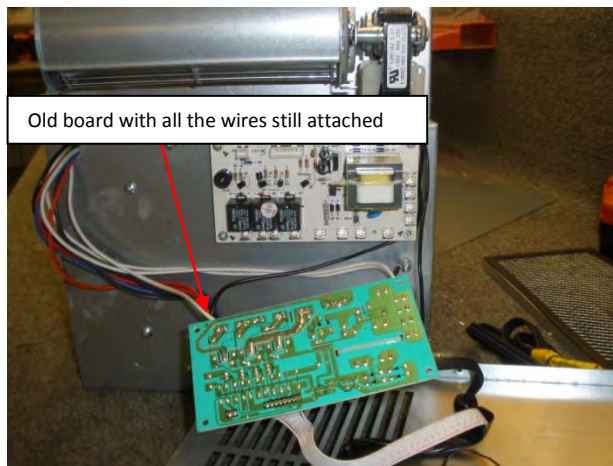
Note: Keep wires attached to old board.



Put the new board in place. Disconnect 1 wire at a time from the old board and connect it to the appropriate location on the new board.

****If you disconnect all wires at once, please refer to the wiring diagram for wire location.**

*****MAKE SURE THE TEMPERATURE SENSOR IS PLUGGED BACK IN.**



H

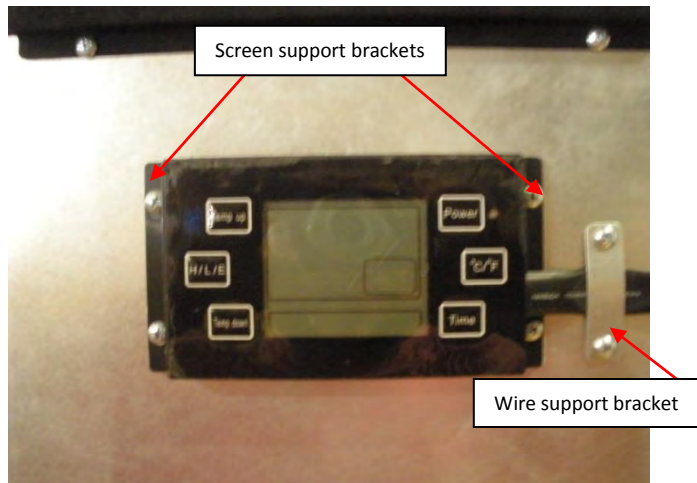
How To Replace The Quartz Infrared Heating Elements

!!Unplug The Heater Before Servicing!!

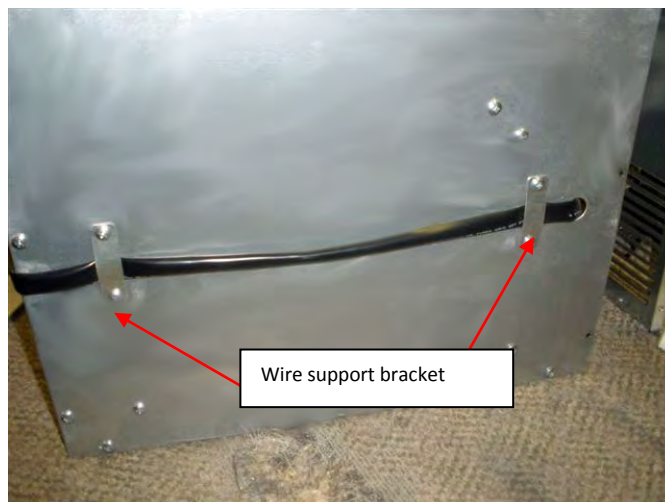
(Remember That the Edges of the Metal Are Sharp. Use Caution)

****SHORT HEATING ELEMENT REPLACEMENT****

Remove the center from cabinet. MAKE SURE ELEMENTS HAVE COOLED COMPLETELY BEFORE REPLACING. Remove both side panels by removing all of the screws. In order to remove the right side panel, you will need to remove the display screen. Remove the 2 screen support brackets that hold the screen in place.

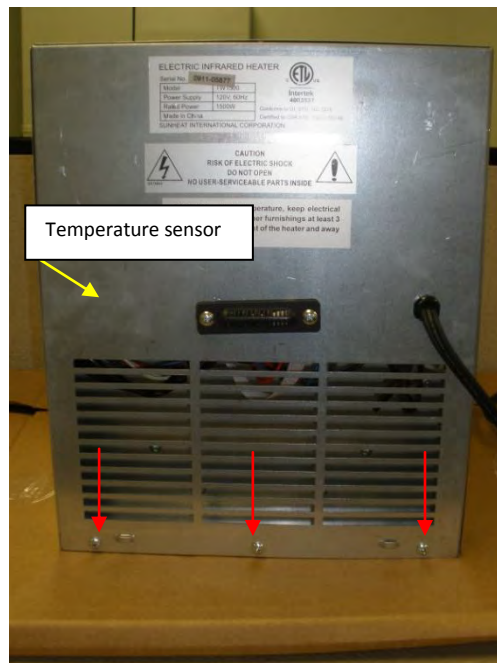
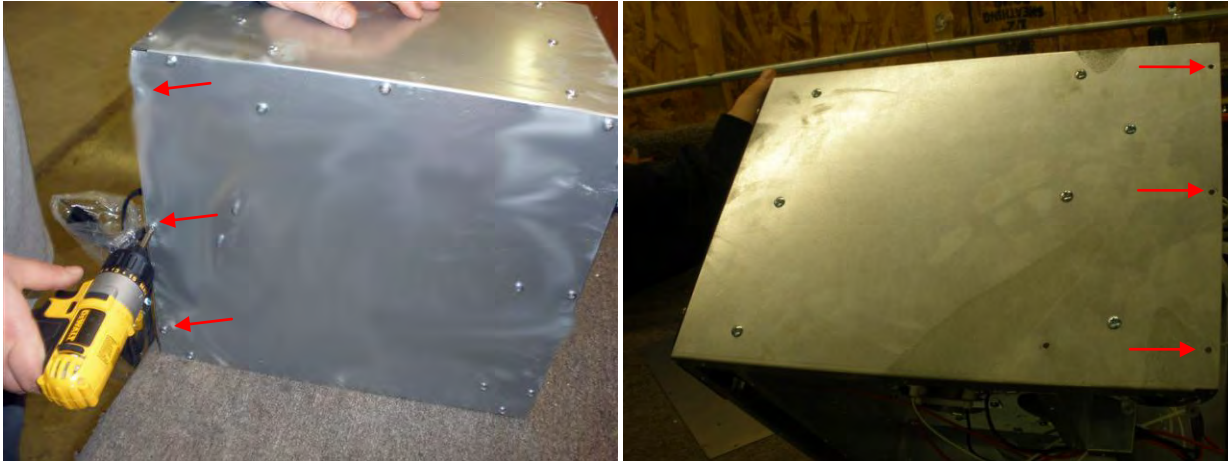


Remove the 3 wire support brackets that secure wire to the unit (1 by the display screen and 2 along the side panel).



H

Remove back panel by removing 12 screws. There are 3 screws on both side panels and 3 on the top and bottom of the back panel.

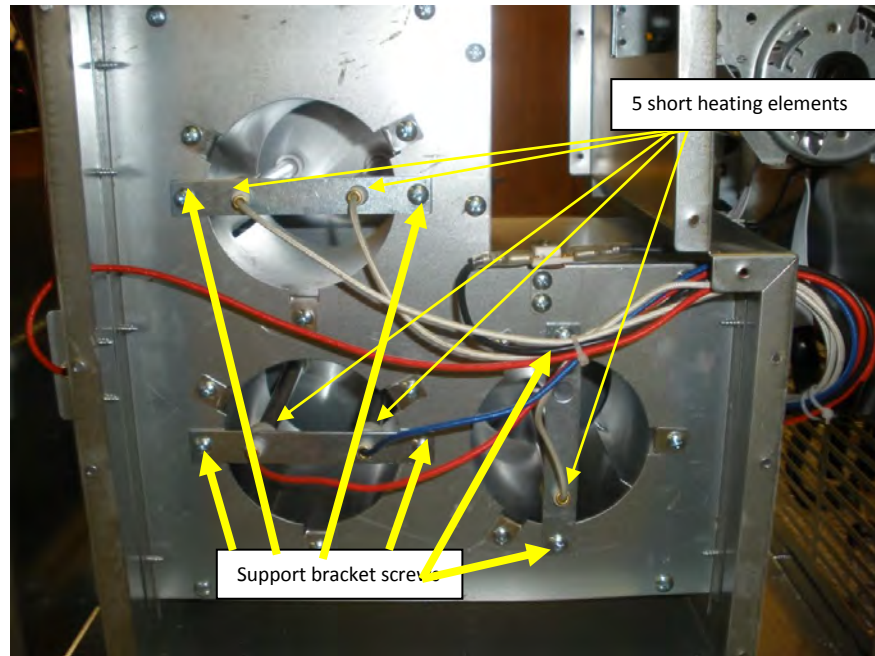


Note: It is recommended that you unplug the Temperature Sensor from the circuit board after removing the back panel so you have better access to the circuit board connection.

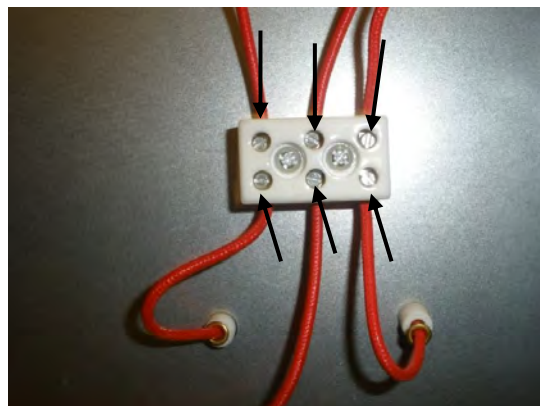
H

Remove the support bracket that corresponds to the heating element you are replacing by removing the 2 screws holding it in place.

Note: It is not necessary to remove all support brackets; just remove the bracket that holds the element you need to replace.



On the right side of the heater you have a white ceramic wiring block. Unscrew the wire that corresponds to the heating element you are replacing. Remove element and disconnect wire from the circuit board.

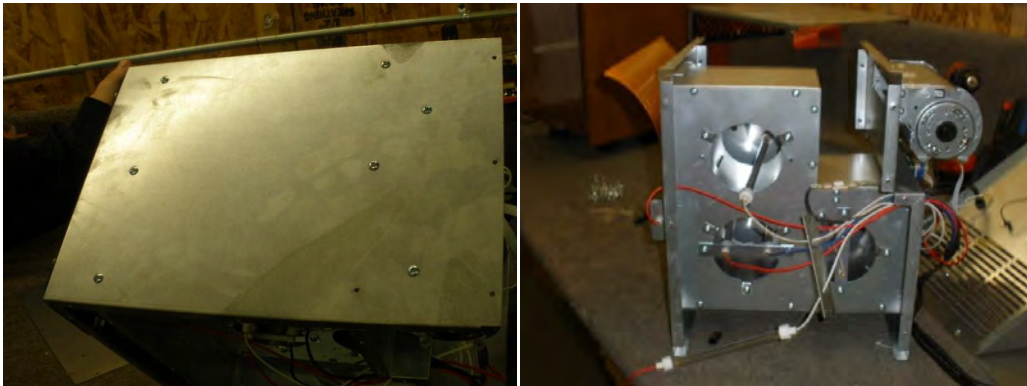


Note: Ceramic ends may separate from the glass tube. This is normal and will not affect the performance of the element. It is to allow for expanding and contracting of the heating element.

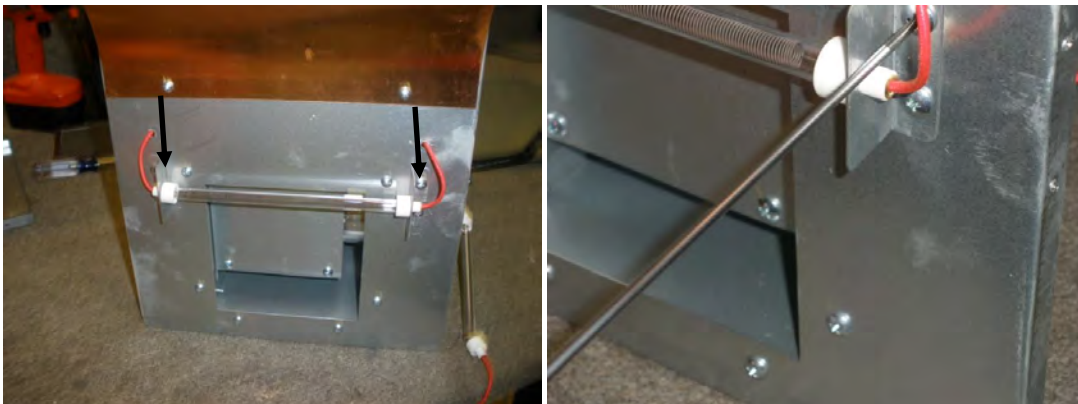
H

****LONG HEATING ELEMENT REPLACEMENT****

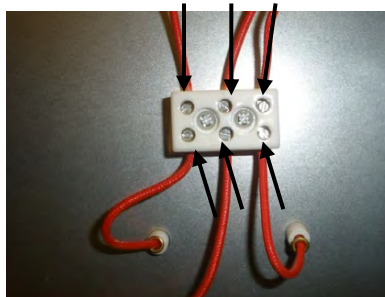
Remove all screws on the top panel. The mainframe can be pulled out to gain full access to long element.



Remove the 2 brackets holding the long element in place.



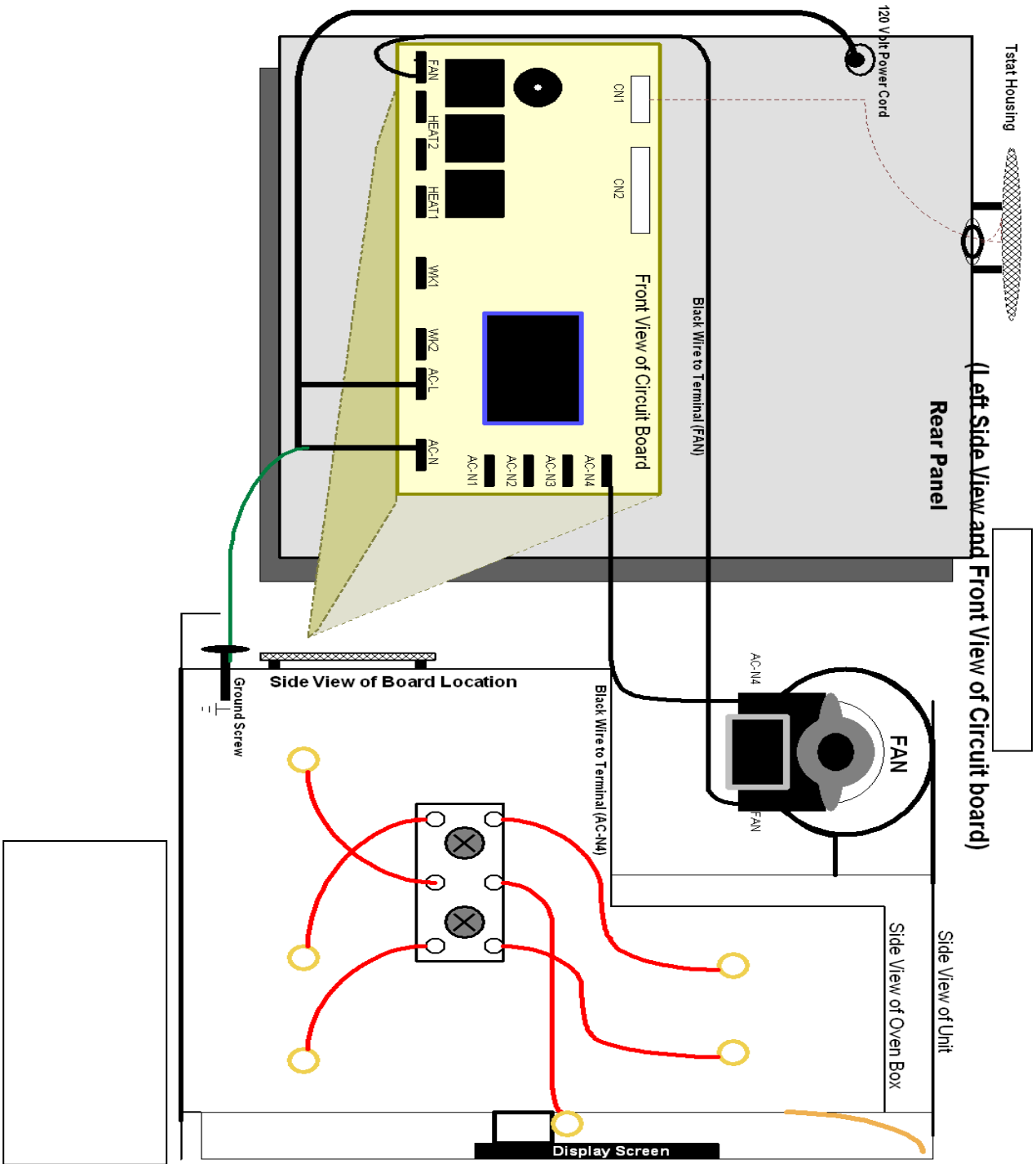
On the right side of the heater you have a white ceramic wiring block. Unscrew the wire that corresponds to the heating element you are replacing. Remove element and disconnect wire from the circuit board.



*****MAKE SURE THE TEMPERATURE SENSOR IS PLUGGED BACK IN.**

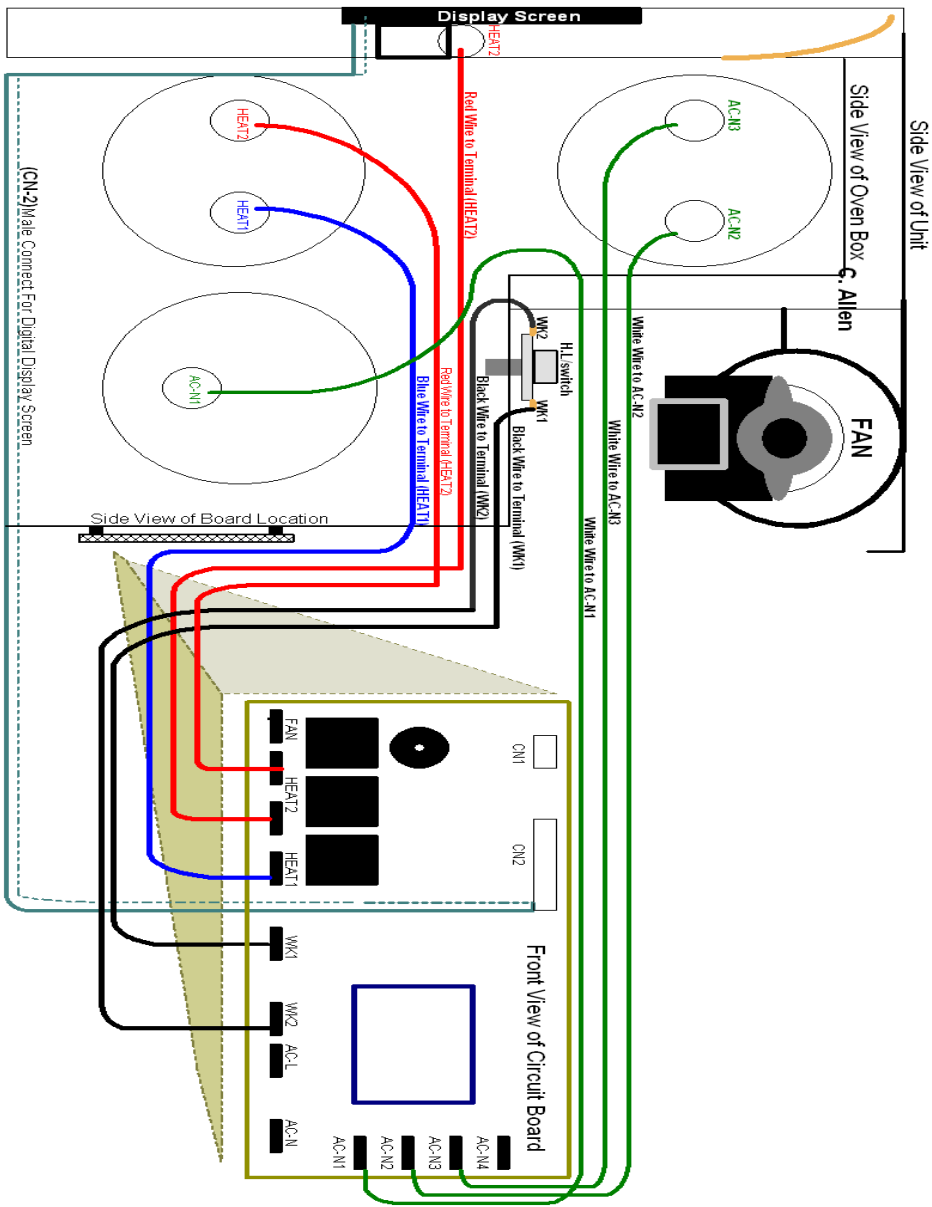
I

Wiring Diagrams





(Right Side View and Front View of Circuit Board)



Feb. 9 2012

