



## **THERMAL WAVE (TW1500)**

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**!! Unplug The Heater Before Servicing!!**

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

**Questions: Call Customer Service**

**1-877-467-8643**

- A. How to Remove 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 Heating Elements**

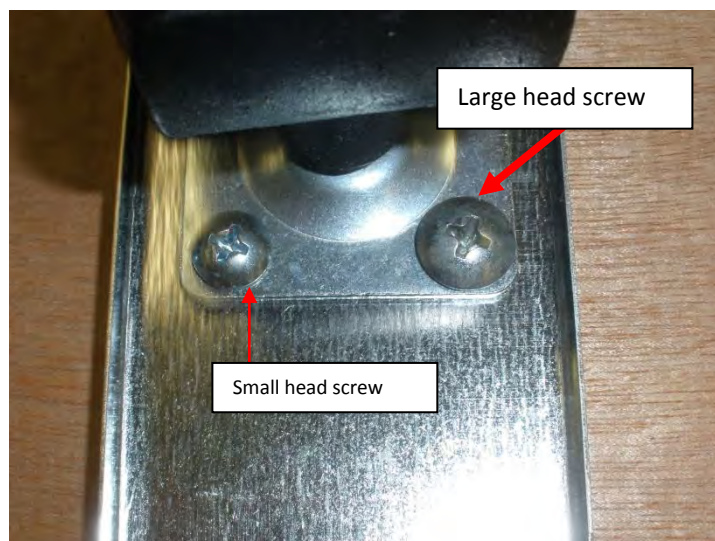
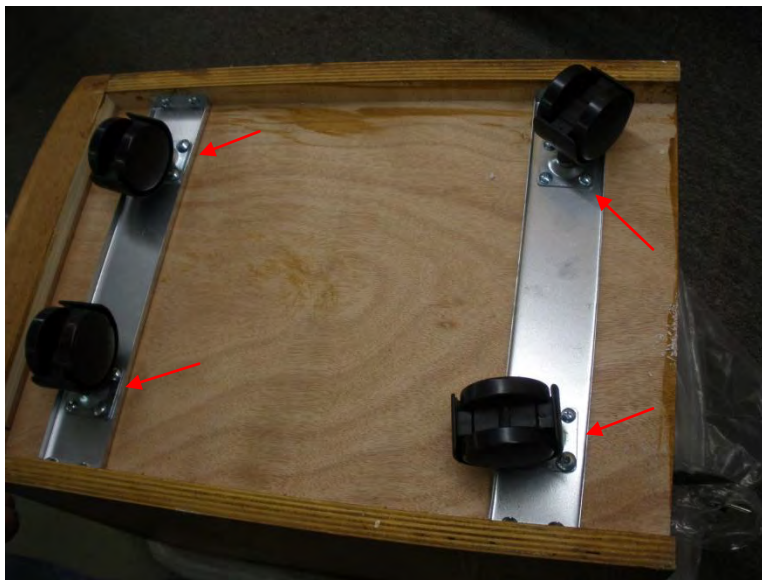
# A

## How To Remove Center Unit From 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)**



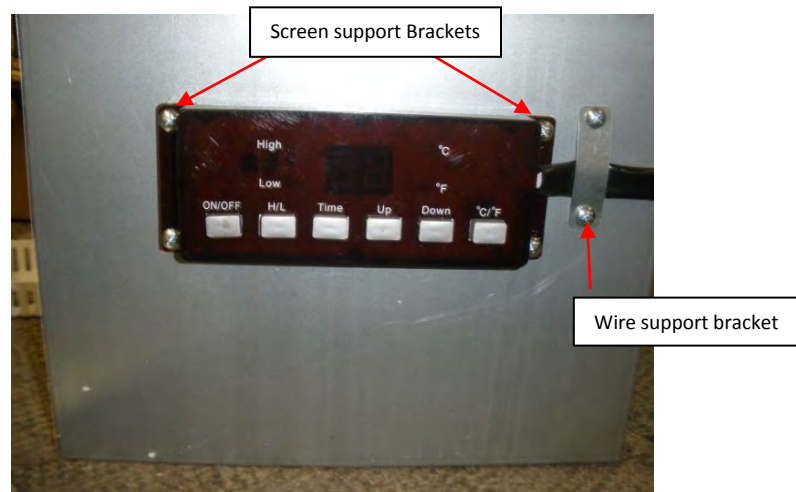
# B

## How To Replace Display Screen

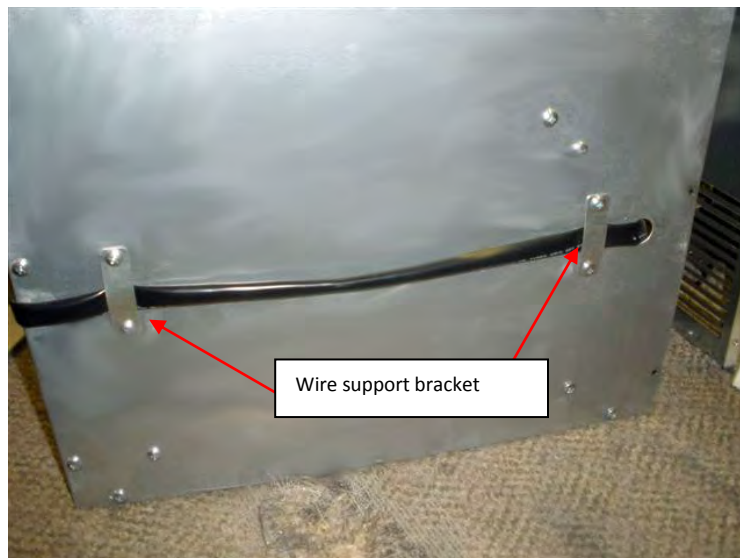
**!!Unplug The Heater Before Servicing!!**

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

Remove the 2 screen support brackets that hold the screen in place.

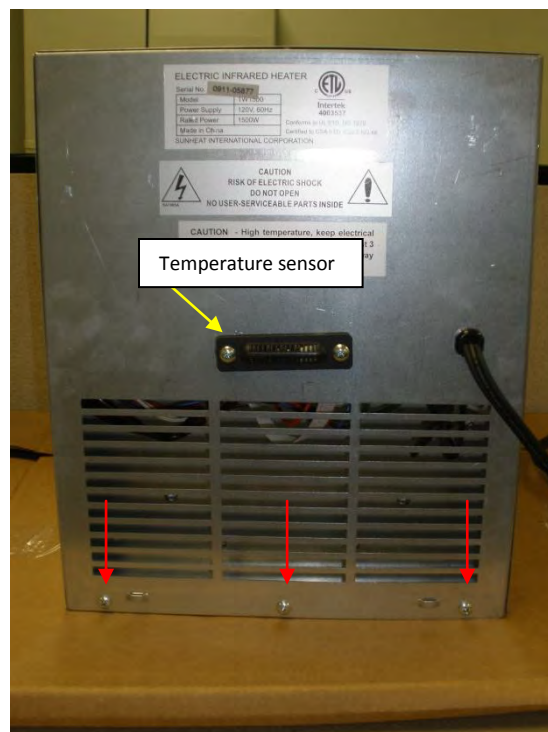
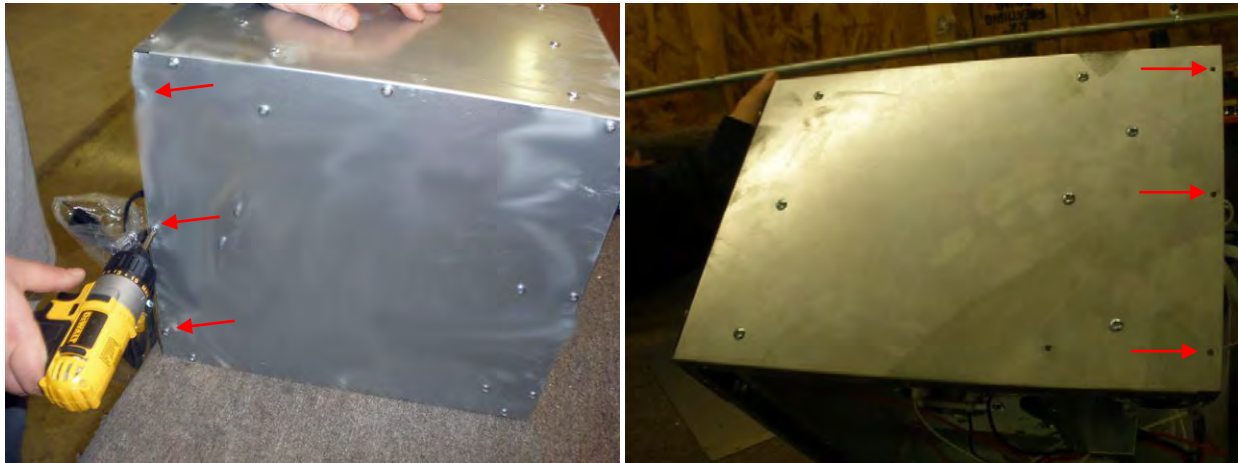


Remove the 3 wire support brackets that secure wire to the unit (1 by the display screen and 2 along the side panel).

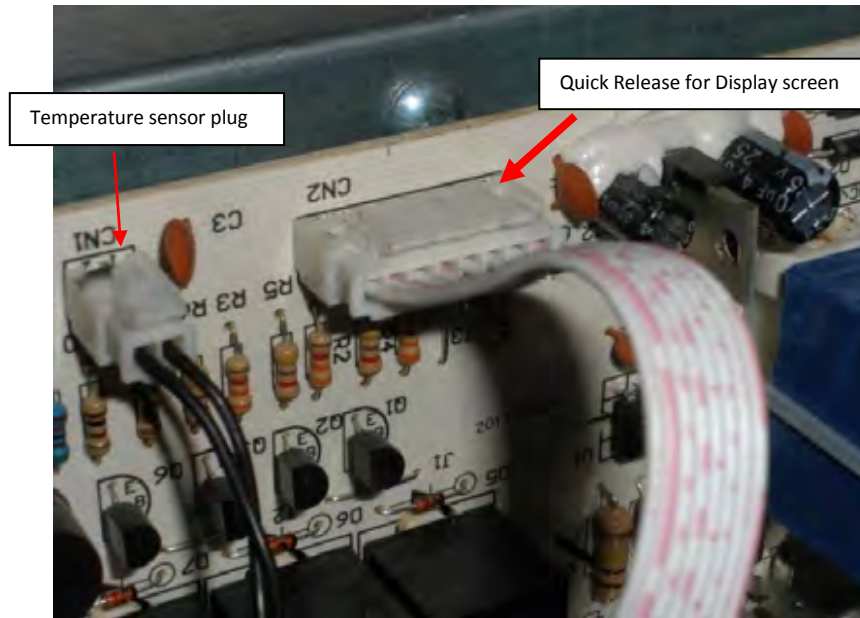


Remove back Panel by removing 9 screws. There are 3 screws on each side panel and on the bottom of the back panel.

**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.



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**



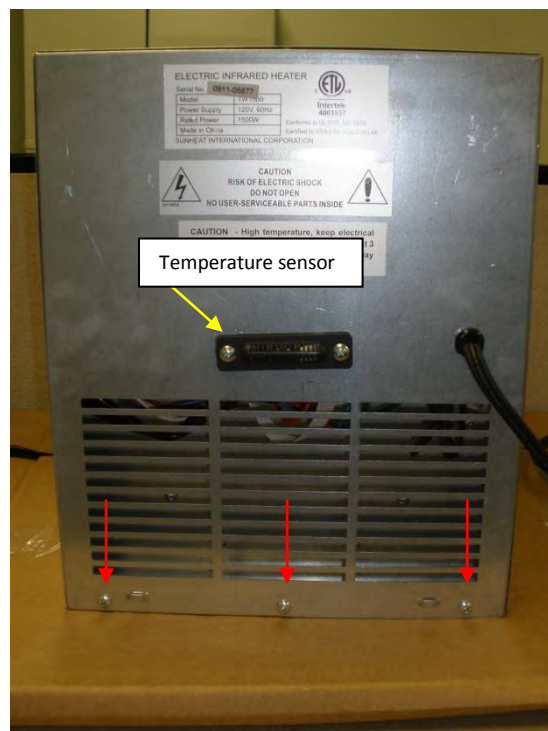
# C

## How To Replace Temperature Sensor

**!!Unplug The Heater Before Servicing!!**

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

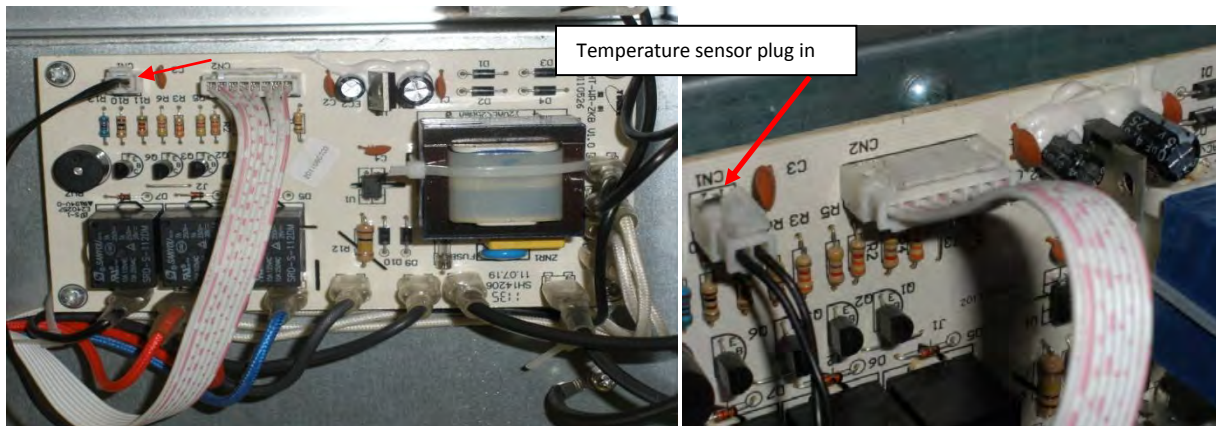
Remove back Panel by removing 9 screws. There are 3 screws on both side panels and on the bottom of the back panel.



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



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



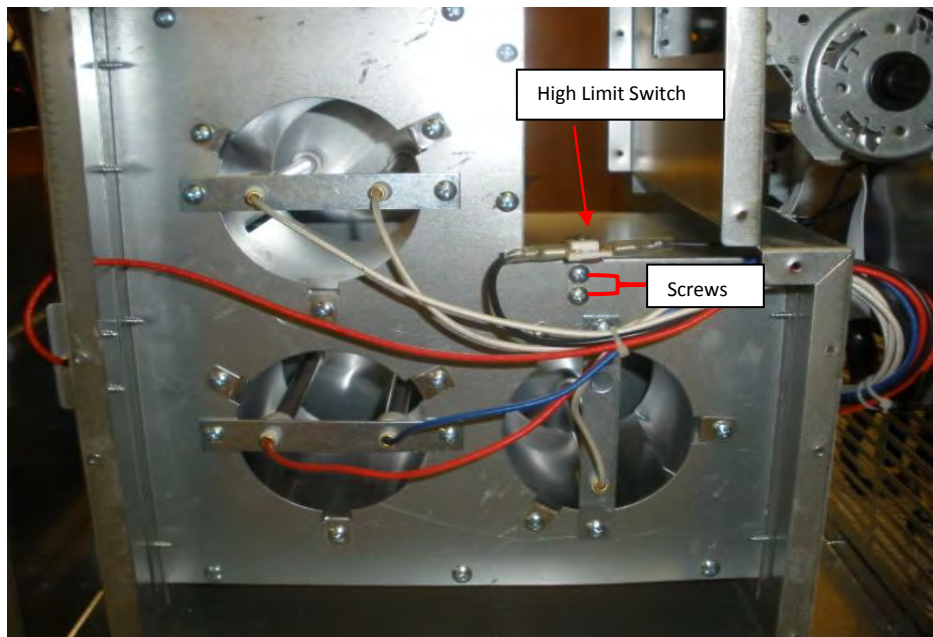
# D

## How To Replace High Limit Switch

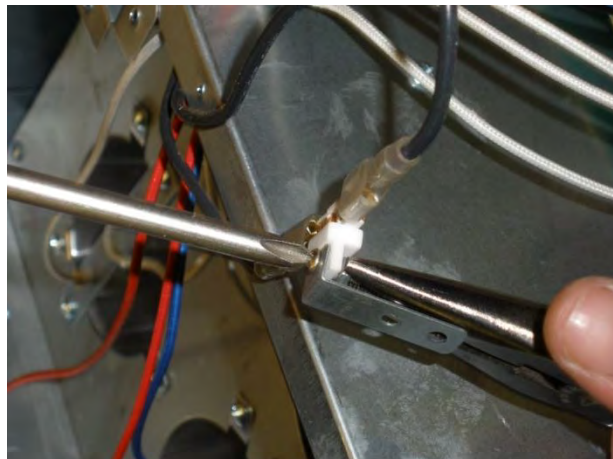
**!!Unplug The Heater Before Servicing!!**

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

(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 bracket.





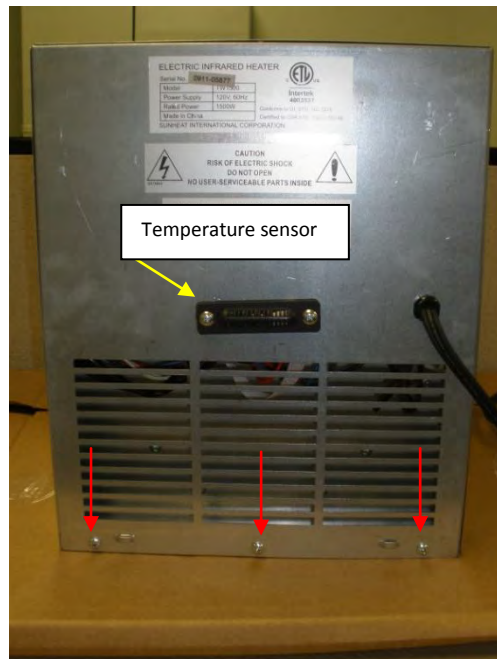
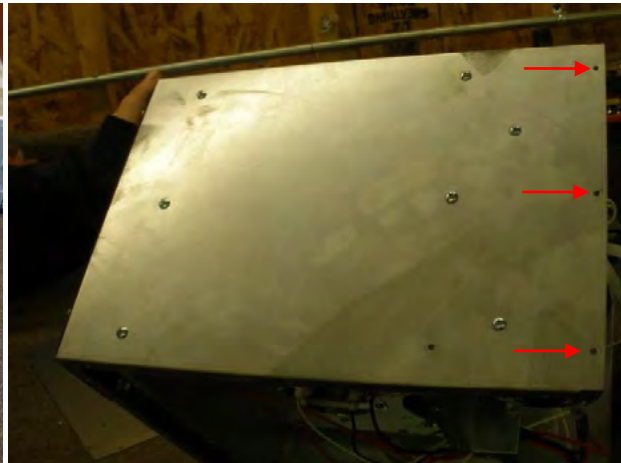
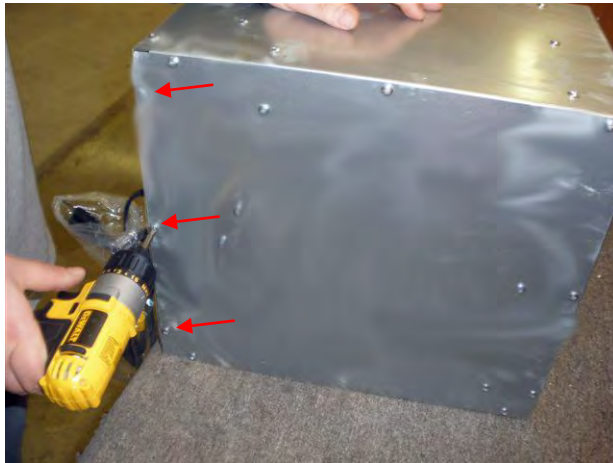
# E

## How To Replace Power Cord

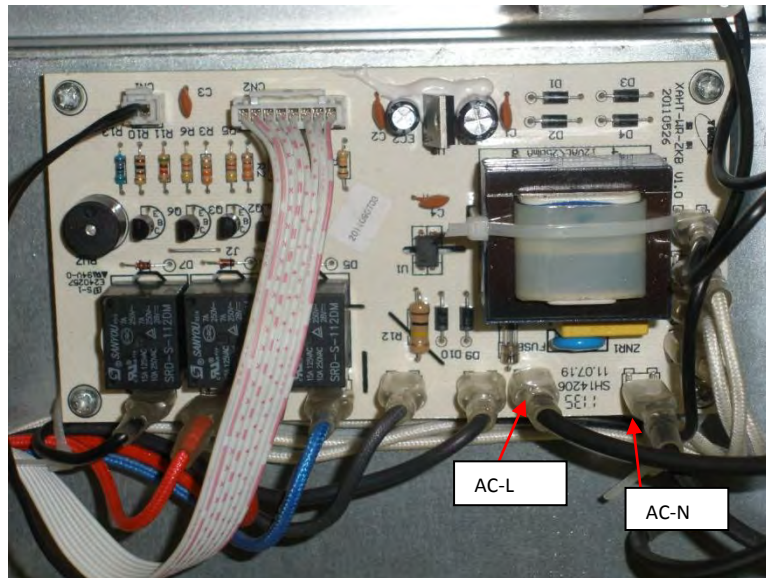
**!!Unplug The Heater Before Servicing!!**  
(Remember That The Edges Of the Metal Are Sharp, Use Caution)

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

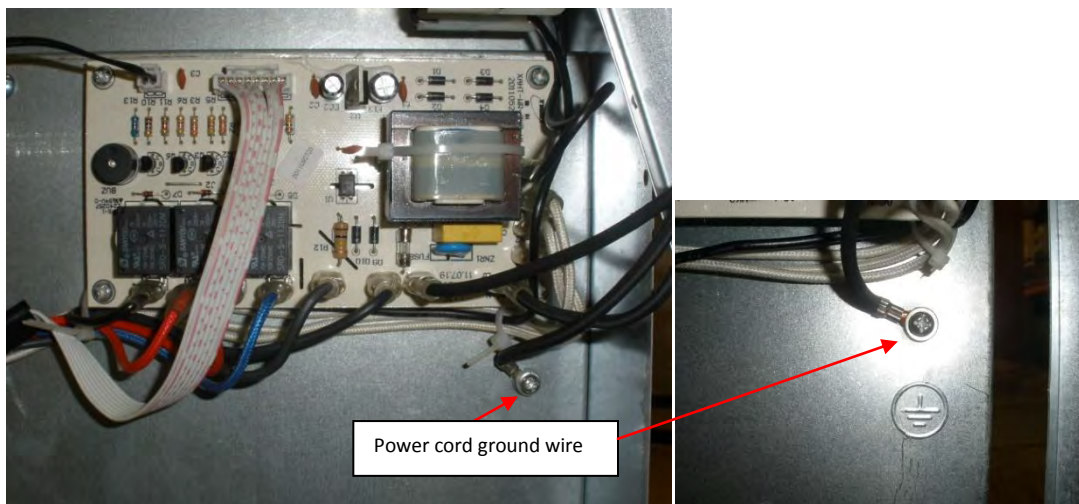
**Note:** It is recommended that you unplug the Temperature Sensor (labeled: CN1) from the circuit board after removing back panel so you have better access.



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 board are universal so it won't matter which goes to ACN or ACL. Make sure ground wire is secure.**

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

# F

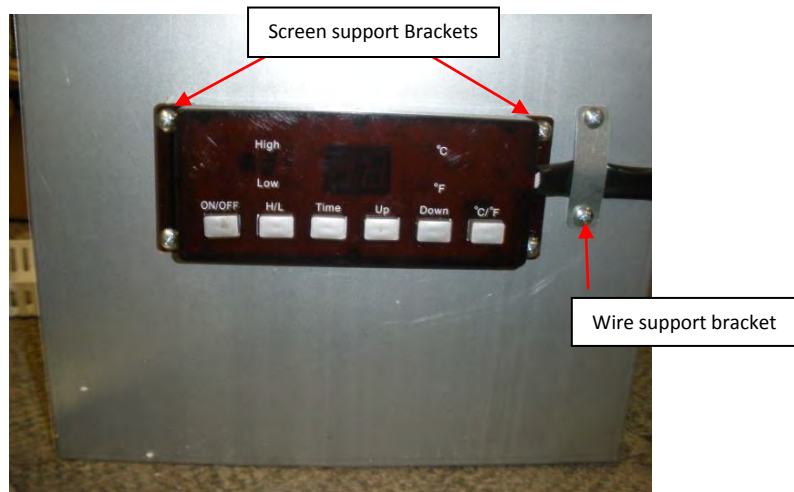
## How To Replace Fan

**!!Unplug The Heater Before Servicing!!**

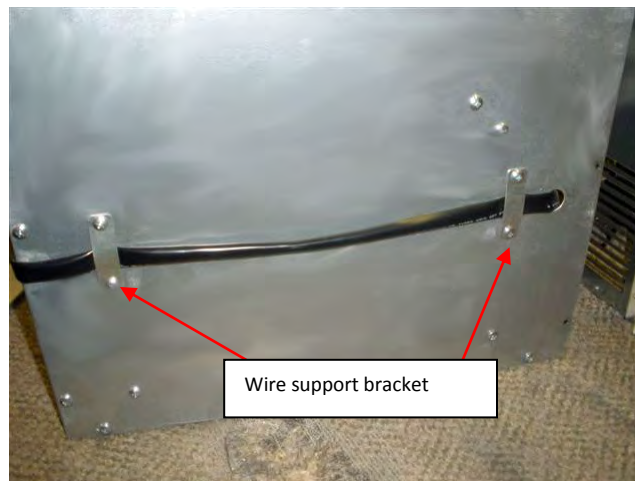
**(Remember That The Edges Of the Metal Are Sharp, Use Caution)**

Remove both side panels by removing all screws. In order to remove the right side panel, you will need to remove the display screen.

To remove the front display screen: Remove the 2 screen support brackets that hold the screen in place.



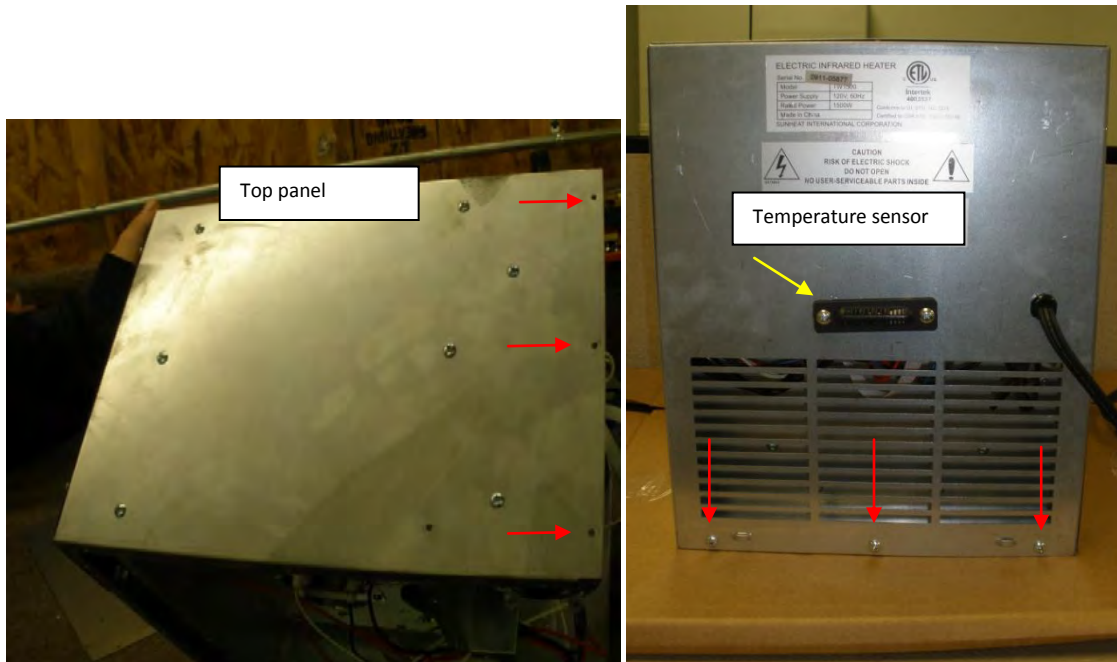
Remove the 3 wire support brackets that secure wire to the unit (1 by the display screen and 2 along the side panel).



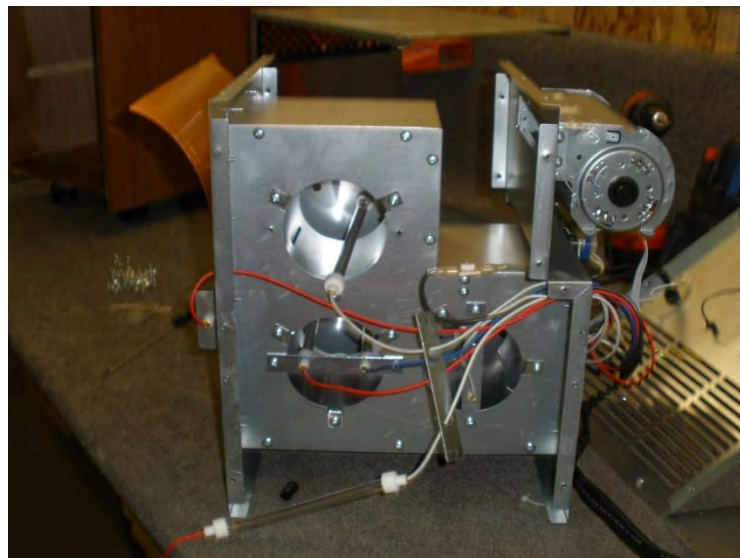


Remove back panel by removing 3 screws on the top and back panels.

**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.

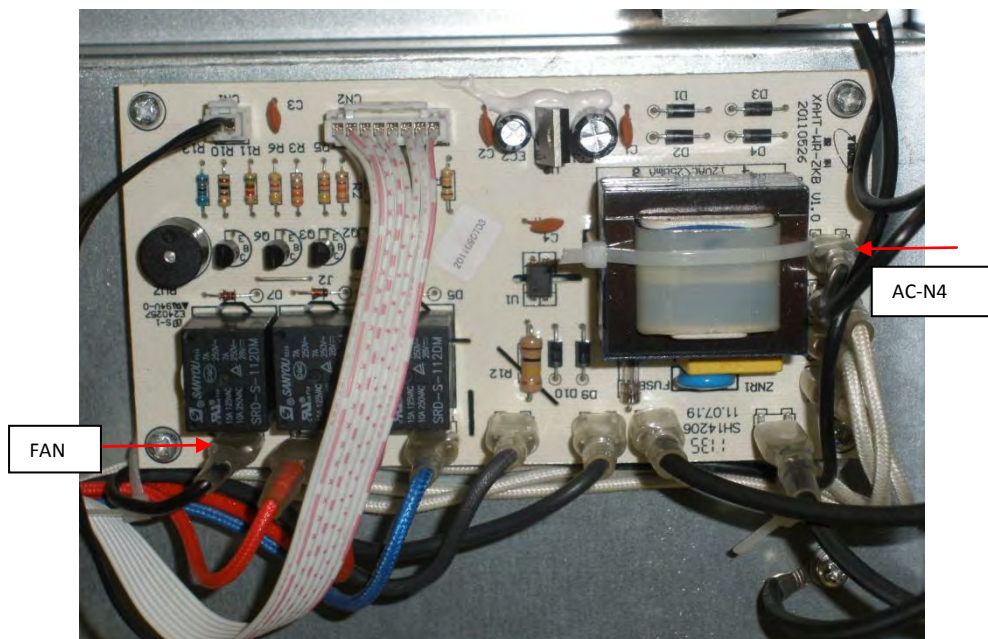
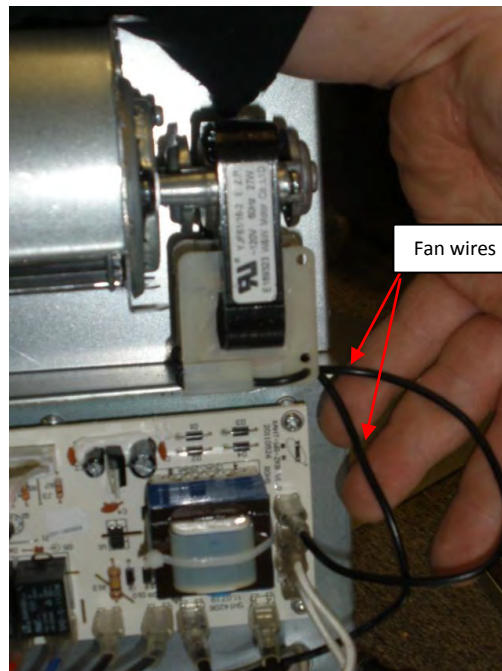


After Side and Back panels are removed, remove all the screws on the top panel. The mainframe can be pulled out to gain full access to fan.

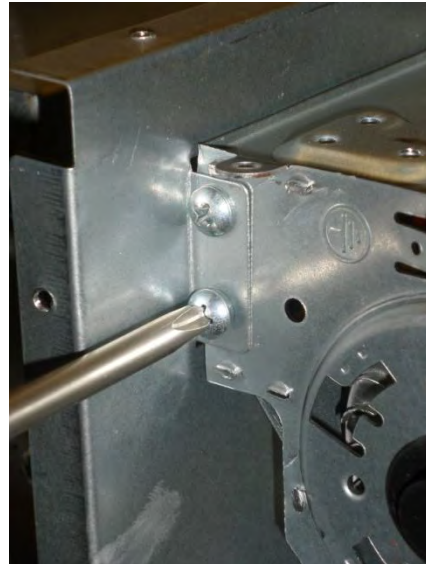
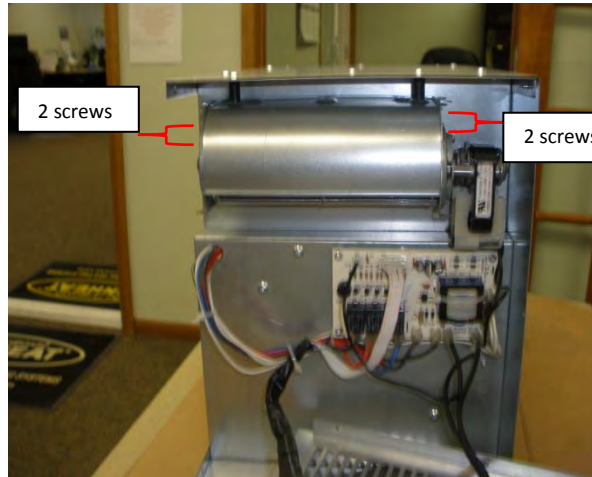




Disconnect 2 wires from the circuit board that come from the fan.  
They are labeled as: AC-N4 & FAN



Remove the 2 screws on both sides of the fan. These screws hold the fan in place.



Pull Fan out and replace with new fan. Wires on fan are universal so it doesn't matter which way they plug back in.



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

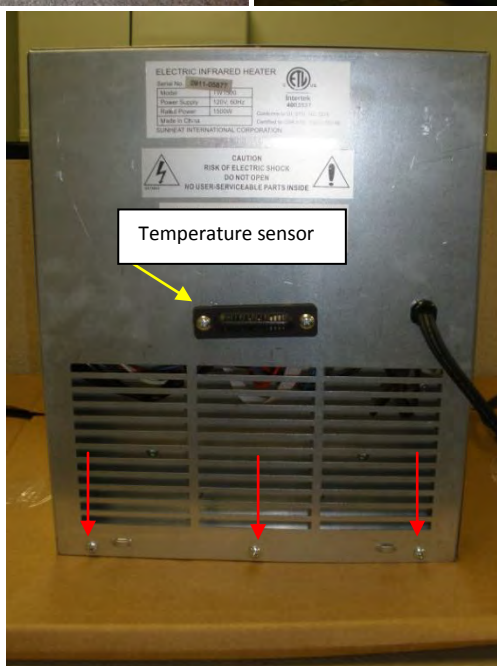
# G

## How To Replace Circuit Board

**!!Unplug The Heater Before Servicing!!**

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

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

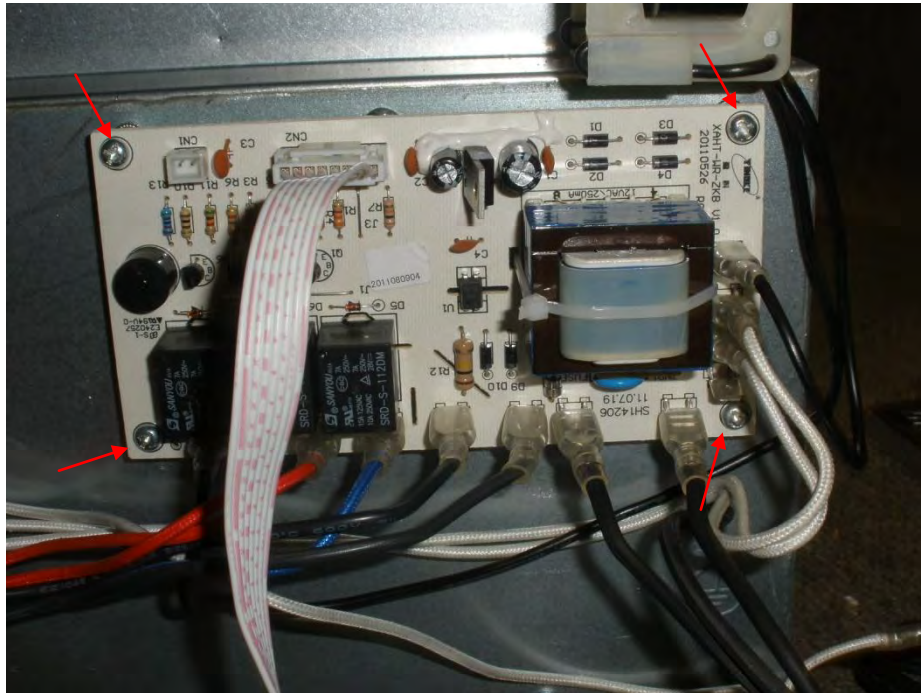


**Note:** It is recommended that you unplug the Temperature Sensor from circuit board after removing back panel so you have better access



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

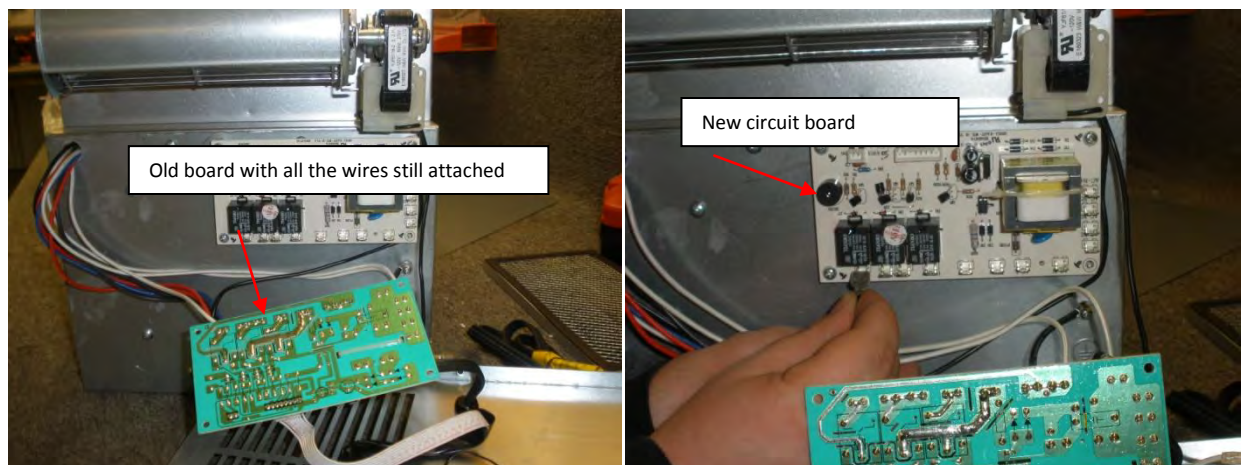
**Note: Keep wires attached to old board**



Put new board in place.

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

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



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



# H

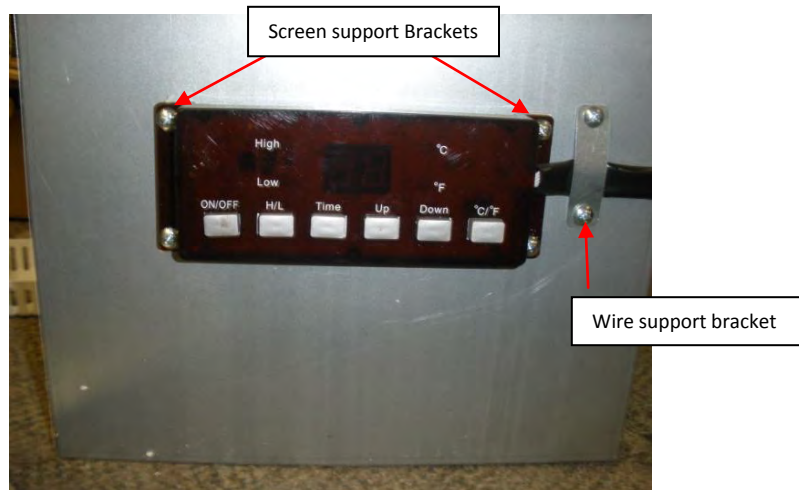
## How To Replace Heating Elements

**!!Unplug The Heater Before Servicing!!**  
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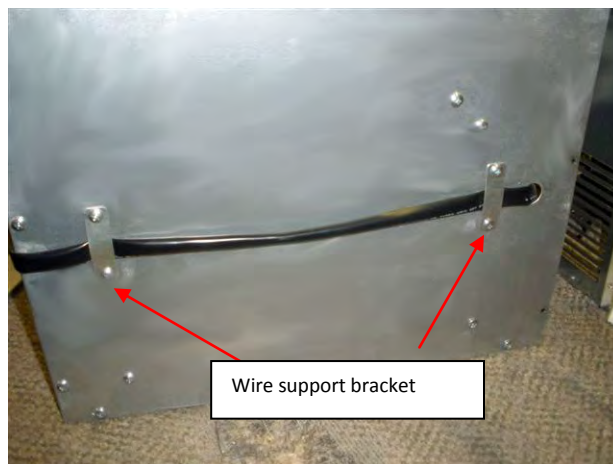
**\*\*SHORT HEATING ELEMENT REPLACEMENT\*\***

Remove both side panels by removing all screws. In order to remove the right side panel, you will need to remove the display screen.

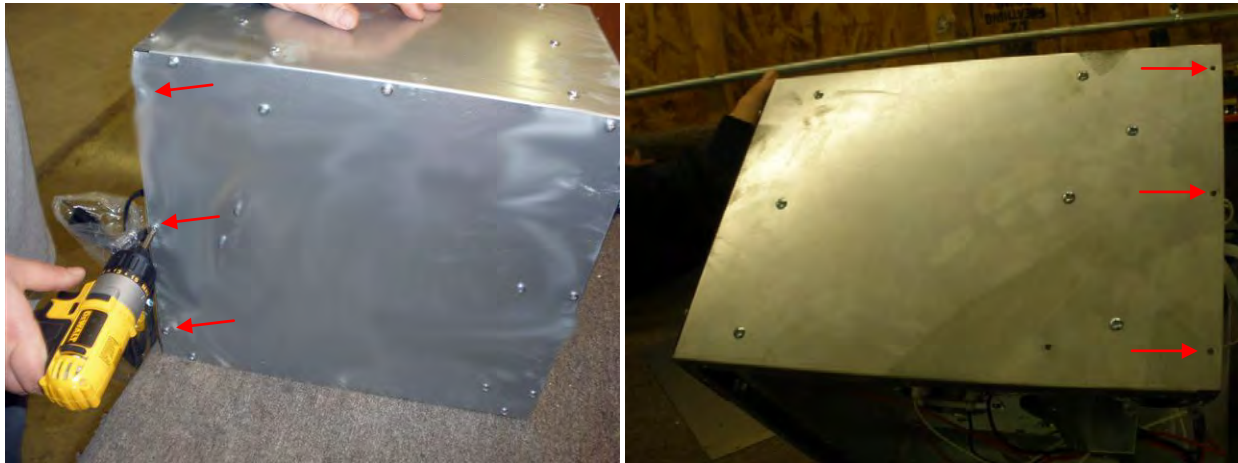
To Remove Display screen: Remove the 2 brackets holding the screen in place.



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



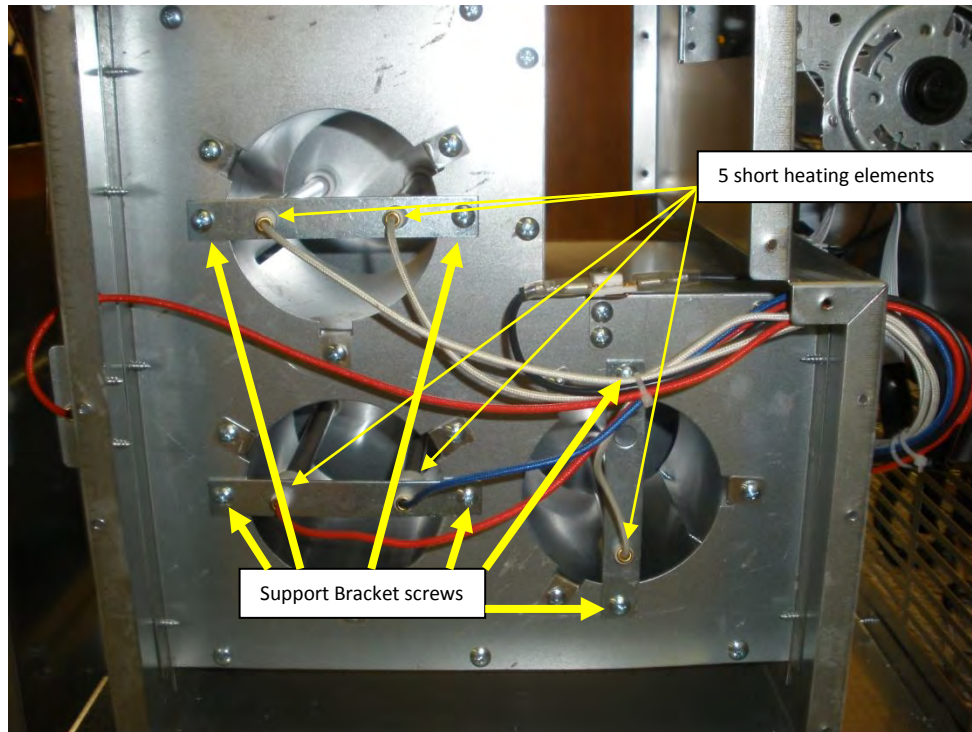
Remove back Panel by removing 9 screws. There are 3 screws on both side panels and on the bottom of the back panel.



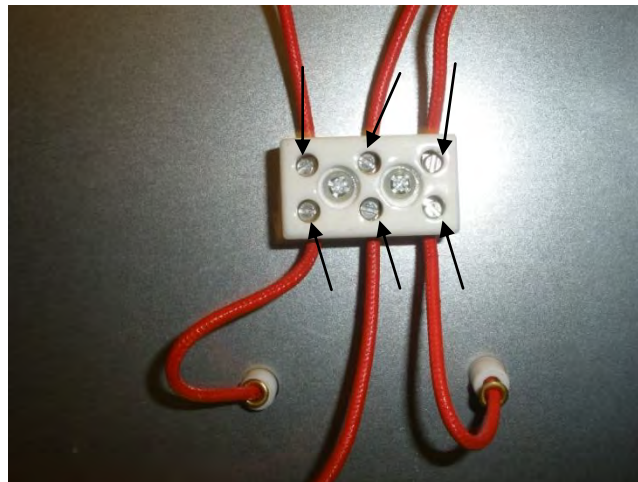
Note: It is recommended that you unplug the Temperature Sensor from the circuit board after removing the back panel so you have better access.

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 heater you have a white ceramic wiring block, unscrew the wire that corresponds to the heating element you are replacing.



Remove element and disconnect from Circuit Board. Replace with new element.



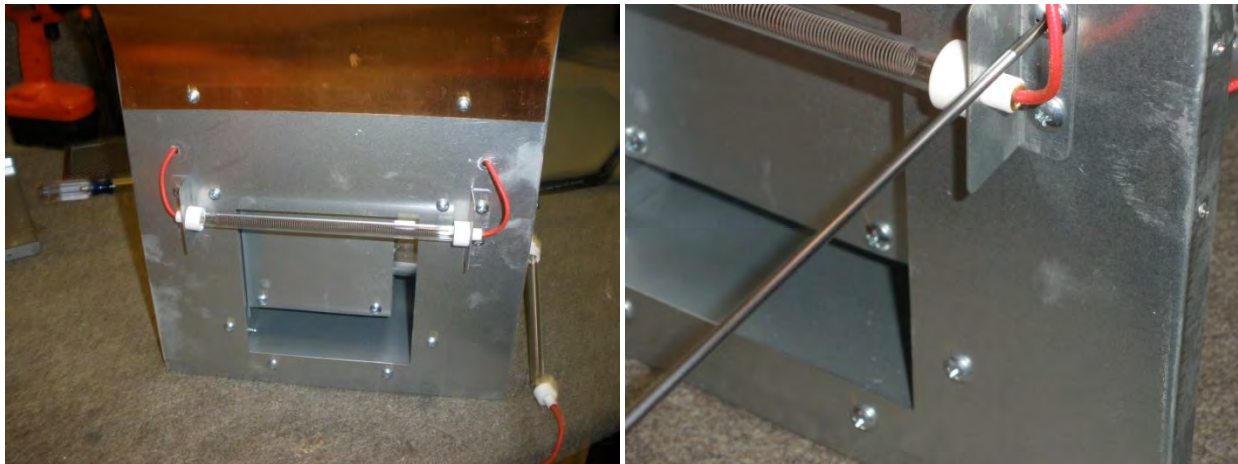
**Note:** Element will separate from ceramic end. This is normal and will not affect the performance of unit. It is to allow for expanding and contracting of element.

### **\*\*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.



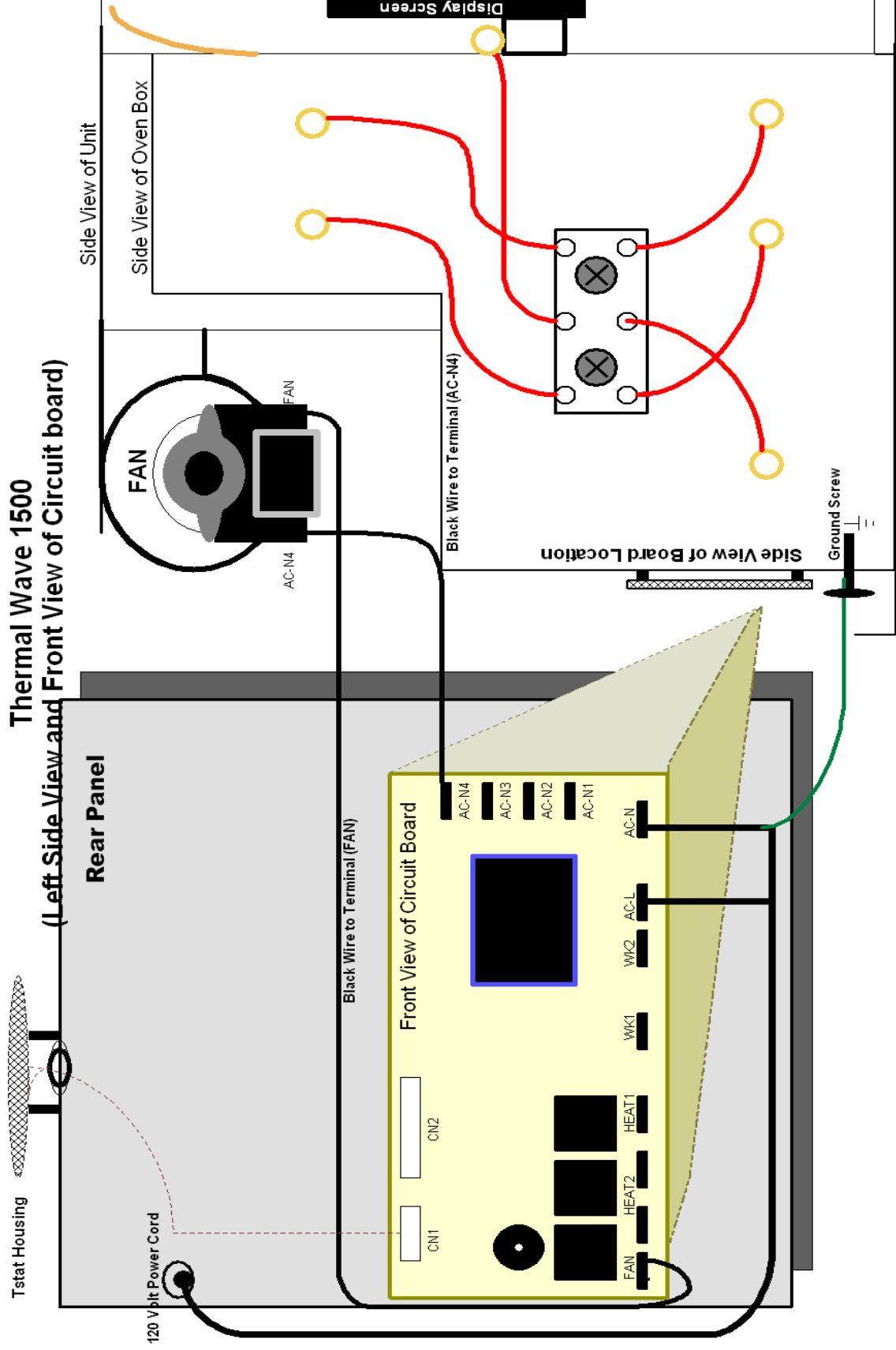
On the Right side of the heater you have a white ceramic wiring block, unscrew the wire that corresponds to the heating element you are replacing.

Remove element and disconnect from Circuit Board. Replace with new element.

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



# Thermal Wave 1500 (Left Side View and Front View of Circuit board)



# Thermal Wave 1500 (Right Side View and Front View of Circuit Board)

