



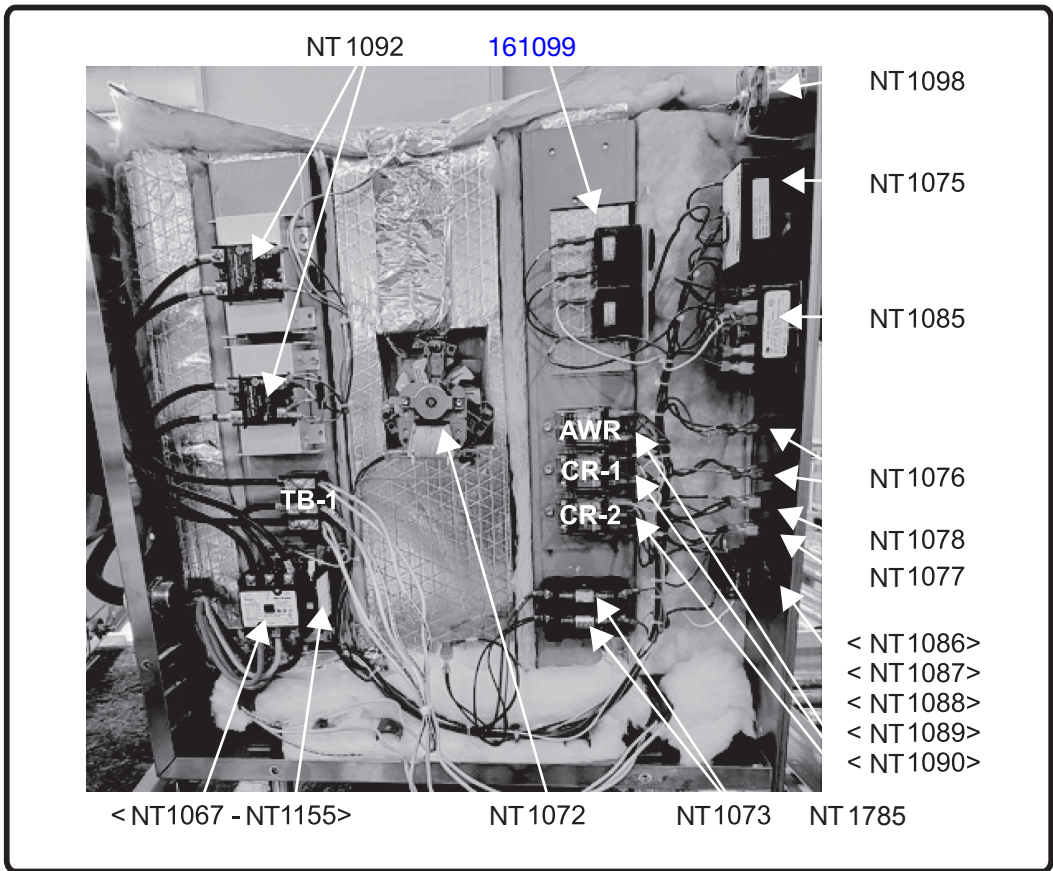
# SERVICE MANUAL/PARTS LIST

ALL ELECTRIC MODELS and VOLTAGES

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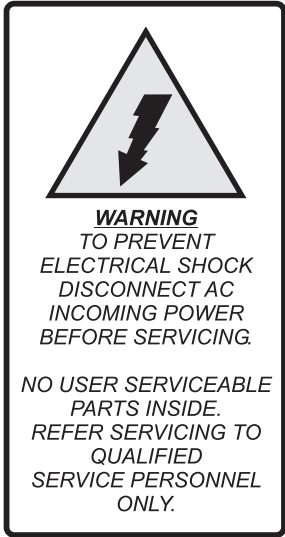
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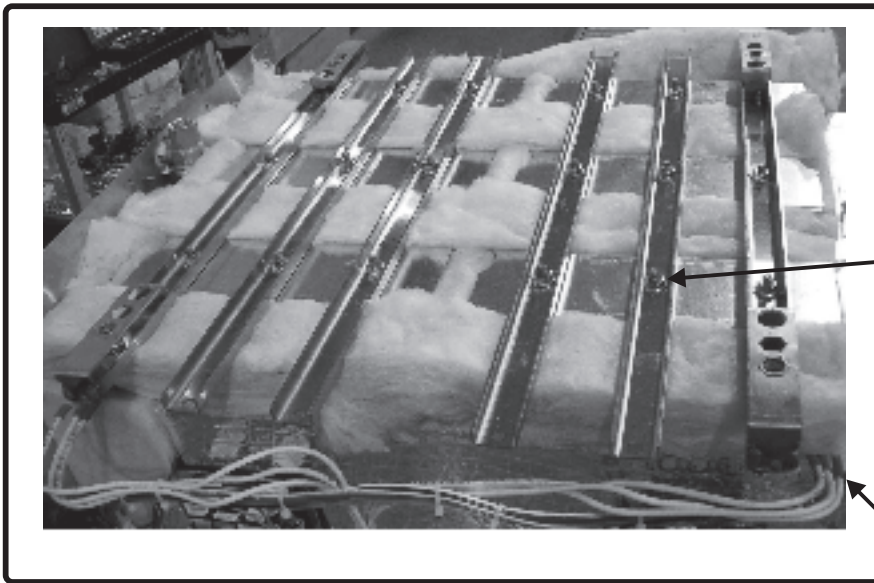


**FIGURE 1**  
**XS-208-12-3 (3 Phase Unit Shown)**

| <u>INTEK P/N</u> | <u>Description</u>                     |
|------------------|--|
| 161099           | BEEPER, 120V-240V                      |
| NT1067           | DP Contactor, Main Power               |
| NT1785           | Relay, 220V, Control                   |
| NT1072           | Fan, Convection (Includes Blade Assy.) |
| NT1073           | Fuse, 5 Amp                            |
| NT1075           | Thermostat, Hold 100-212 Degrees       |
| NT1076           | Lamp, Red                              |
| NT1077           | Lamp, Blue                             |
| NT1078           | Lamp, Amber                            |
| NT1085           | Timer, 60 Minute                       |
| NT1086           | Operator, Switch, PB, On               |
| NT1087           | Operator, Switch, PB, Off              |
| NT1088           | Mounting Latch, On / Off Switches      |
| NT1089           | Contact, NC, Off Switch                |
| NT1090           | Contact, NO, On Switch                 |
| NT1092           | Solid State Relay, 75A, AC Input       |
| NT1098           | Thermometer, Analog 100-220 Degrees    |
| NT1155           | Aux. Contact, DP Contactor             |



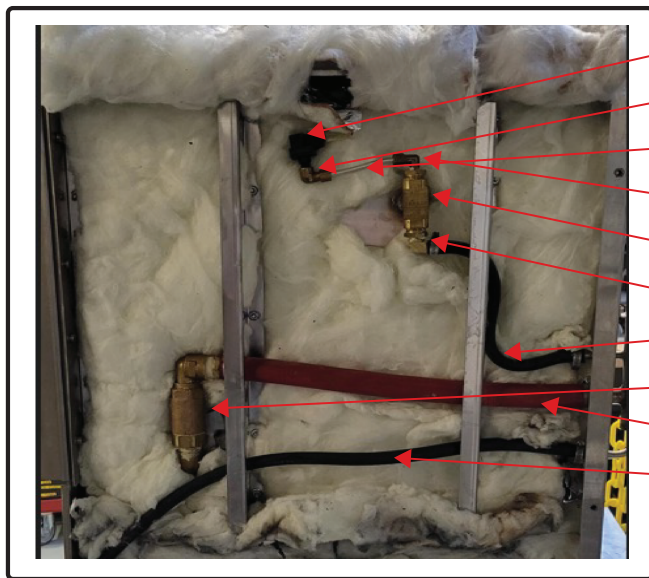
**REFER TO WIRING DIAGRAM FOR ADDITIONAL INFORMATION**



**IMPORTANT**  
 Apply Loc-Tite™  
 Removable-  
 ThreadLocker™  
**AND**  
 Torque Clamping  
 Nuts to 65in.lbs. /  
 5.5ft.lbs.

**FIGURE 2**

*Heater Is Located Under  
 Bracket / Clamp Assembly*



**FIGURE 3**

**WARNING**  
 TO PREVENT ELECTRICAL SHOCK DISCONNECT  
 AC INCOMING POWER BEFORE SERVICING.  
 NO USER SERVICEABLE PARTS INSIDE.  
 REFER SERVICING TO QUALIFIED  
 SERVICE PERSONNEL ONLY.

- NT1091
- 050500
- 161017
- 004584
- NT1200
- NT1555
- 161118
- 174322
- 161101
- 161100

**INTEK P/N Description**

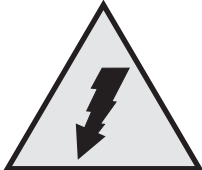
|         |  |
|---------|--|
| NT1009  | Heater, 208V, 12kW   |
| NT1011  | Heater, 240V, 12kW   |
| NT1012  | Heater, 208V, 6.24kW   |
| NT1013  | Heater, 240V, 6.24kW   |
| NT1045  | Heater, 208V, 8.5kW  |
| NT1046  | Heater, 240V, 8.5kW  |
| NT1269  | Heater, 208V, 14.4kW   |
| NT1270  | Heater, 240V, 14.4kW   |
| NT1091  | Switch, Pressure, 1/8"NPT                                      |
| NT1797  | Heater, 208V, 14.4kW (new ver.)                                |
| NT1798  | Heater, 240V, 14.4kW (new ver.)                                |
| 174322  | Check Valve Assembly   |
| 161017  | 1/4" X 4" Long Aluminum Tube                                   |
| 161100  | Hose 5/16" 28" Long EPDM                                       |
| 161101  | Hose 3/4" 16.75" Long EPDM                                     |
| 161118  | Hose 5/16" 12" Long EPDM                                       |
| NT1200  | Brass Tee- 1/2 FP  |
| NT1555  | Brass Elbow Fitting- Hose Barb<br>X 90 Degree Male- Blockstyle |
| Z004584 | Fitting Compression 90<br>1/8NPT X 1/4CC                       |
| Z050500 | Elbow Female 90 Deg  |

**PARTS NOT SHOWN**

|        |                            |
|--------|----------------------------|
| NT1079 | Thermostat, Bi-metal, 325F |
| NT1080 | Thermostat, Bi-metal, 410F |
| 125907 | Gasket, Door HY-5 Silicone |

**REFER TO WIRING DIAGRAM FOR ADDITIONAL INFORMATION**

# TROUBLESHOOTING GUIDE

|   |   |
|---|---|
|  | <p><b>WARNING</b></p> <p>TO PREVENT ELECTRICAL SHOCK DISCONNECT<br/>AC INCOMING POWER BEFORE SERVICING.</p> <p>NO USER SERVICEABLE PARTS INSIDE.<br/>REFER SERVICING TO QUALIFIED<br/>SERVICE PERSONNEL ONLY.</p> |
|---|---|

| SYMPTOM   | POSSIBLE CAUSE  |
|---|---|
| <p>No Lights When ON Is Pressed</p>   | <p>Facility Main Breaker, Unit Ran Dry- No Water In Chamber, F1/F2 Fuse, Hi-Limit (OT-1), MC, CR-1 or N.O. Contact- ON Pushbutton</p> |
| <p>Unit Turns ON When "ON" Pushed- Turns OFF When Released</p>                      | <p>Auxiliary Contact on MC, N.C. Contact- OFF Pushbutton</p>  |
| <p>"Add Water" Light On</p>   | <p>Not Enough Water In Chamber, Build-Up (Lime) On Chamber Bottom, OT-2/OT-3 or AWR.</p>  |
| <p>Unit Won't Heat Up:<br/>1) w/ Steam Out Exhaust<br/>2) w/o Steam Out Exhaust</p> | <p>PS-1, SSR-1/SSR-2, CR-2 Not Working In Cook Mode<br/>Steam Orifice Is Blocked</p>  |
| <p>Heat Stays On<br/>(Light Stays On)</p>   | <p>Normal When Door Open, PS-1, SSR-1/SSR-2<br/>(If Door Is Leaking Steam- Adjust First)</p>  |
| <p>Heat Stays On<br/>(Light Cycles)</p>   | <p>SSR-1/SSR-2</p>  |

## OPERATING SUMMARY

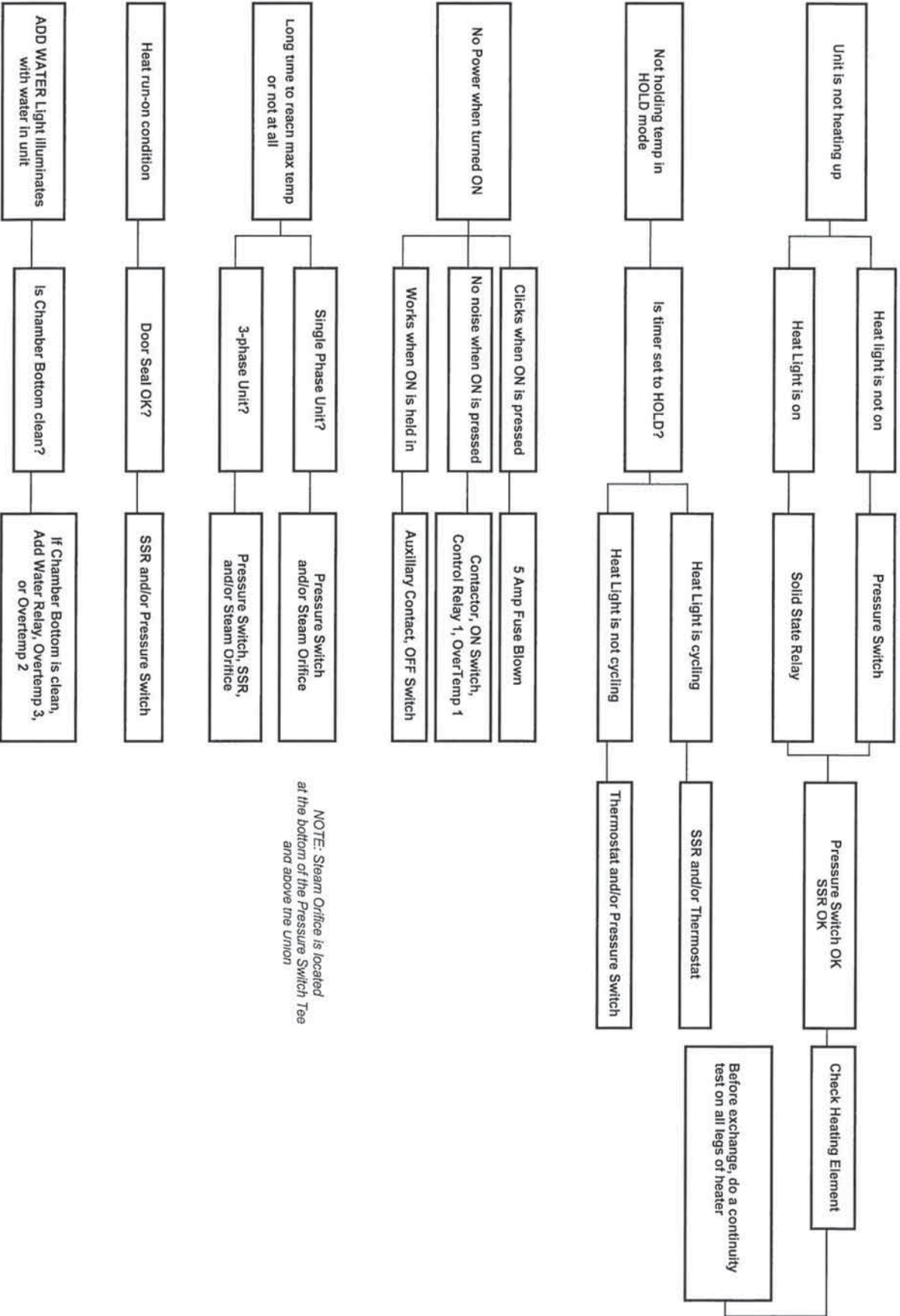
When the timer is at the HOLD position, heat is controlled by the HOLD Thermostat. When the timer is at any other position, heat is directly controlled by PS-1 (pressure switch). Note: Both COOK and HOLD Mode heat outputs are directed through PS-1.

It is normal for the Heat Indicator Light to cycle ON and OFF.

The Convection Fan (CFM) is only on during the cooking cycle.

**REFER TO WIRING DIAGRAM FOR ADDITIONAL INFORMATION**

# TROUBLESHOOTING GUIDE



NOTE: Steam Orifice is located at the bottom of the Pressure Switch Tee and above the Union

**WARNING**

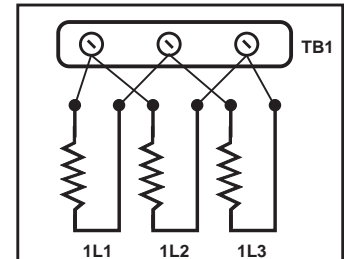
REFER SERVICING TO QUALIFIED PERSONNEL ONLY. DISCONNECT AC INCOMING POWER BEFORE SERVICING.

**IMPORTANT**  
DO NOT CONNECT POWER TO L3 ON SINGLE PHASE UNITS

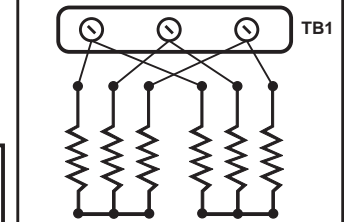
THIS LEG REMOVED ON SINGLE PHASE UNITS

TO TB1

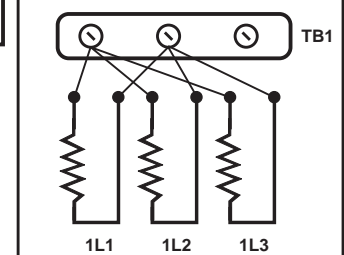
HEATING ELEMENT CONFIGURATION  
SELECT MODEL BELOW



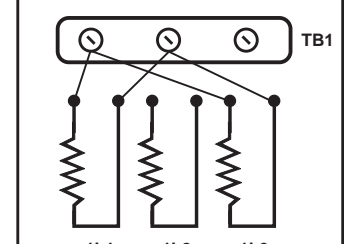
MODELS: XS208-8-3, XS240-8-3  
XS208-12-3, XS240-12-3  
XS480-12-3  
< S/N 5500  
XS208-14-3, XS240-14-3



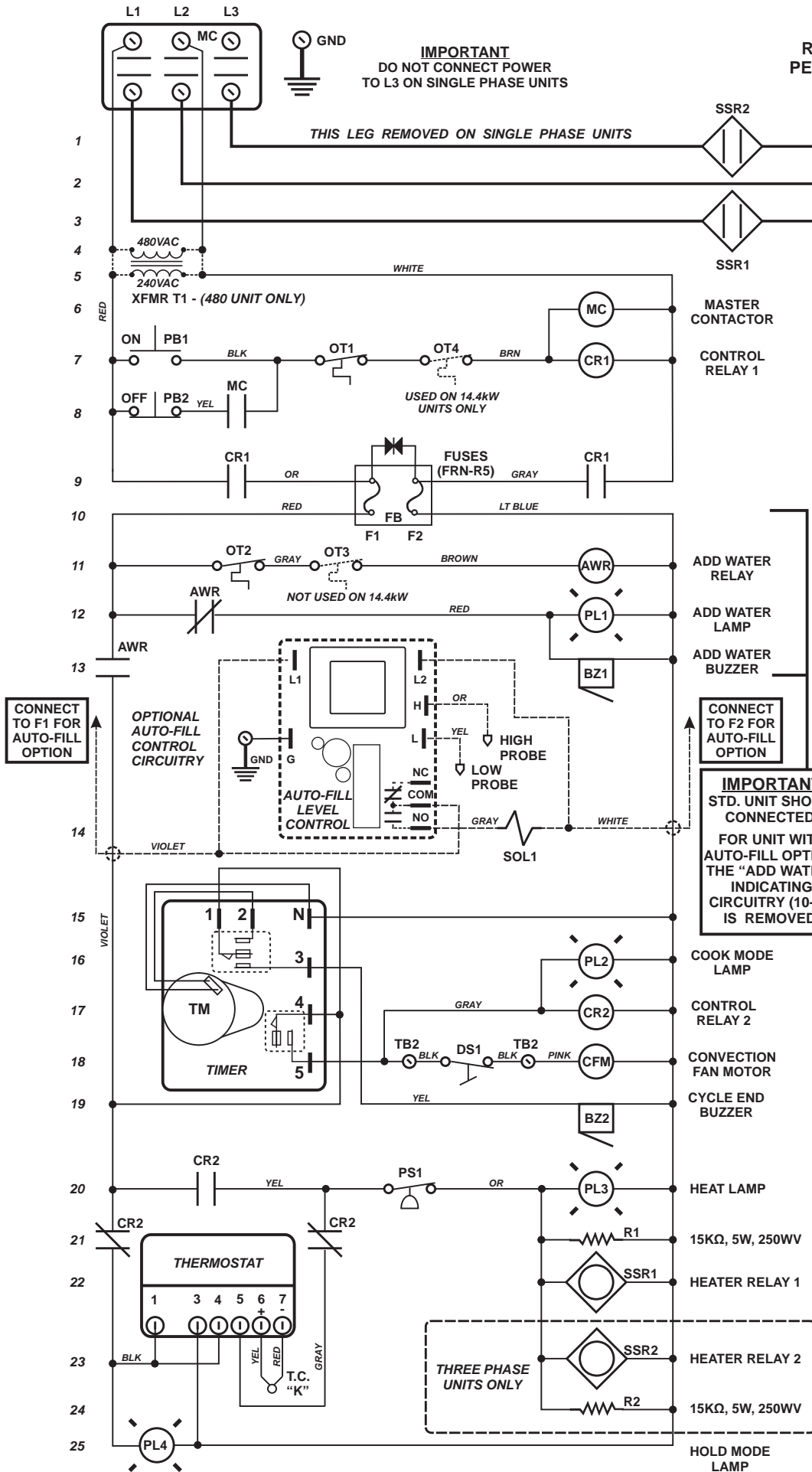
1L1, 1L2, 1L3 1L1, 1L2, 1L3  
MODELS: > S/N 5500  
XS208-14-3, XS240-14-3



MODELS: XS208-6-1  
XS240-6-1

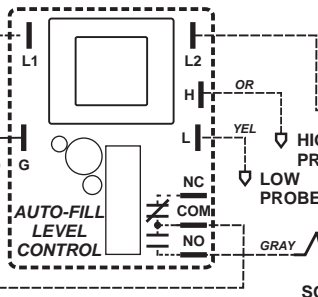


MODELS: XS208-8-1  
XS240-8-1



CONNECT TO F1 FOR AUTO-FILL OPTION

OPTIONAL AUTO-FILL CONTROL CIRCUITRY



CONNECT TO F2 FOR AUTO-FILL OPTION

**IMPORTANT**  
STD. UNIT SHOWN CONNECTED.  
FOR UNIT WITH AUTO-FILL OPTION, THE "ADD WATER" INDICATING CIRCUITRY (10-13) IS REMOVED.

THREE PHASE UNITS ONLY

## REPLACEMENT PARTS LIST

| <u>Part No.</u> | <u>Description</u>                     | <u>Part No.</u> | <u>Description</u>                    |
|-----------------|--|-----------------|---------------------------------------|
| NT1009          | Heater, 208V, 12kW                     | NT1096          | Thermocouple                          |
| NT1011          | Heater, 240V, 12kW                     | NT1037          | Shelf Bracket, Stand                  |
| NT1012          | Heater, 208V, 6.24kW                   | NT1027          | Pan Bracket- Steamer Bottom           |
| NT1013          | Heater, 240V, 6.24kW                   | 170908          | HARNESS, INTEK ELECTRIC, MANUAL FILL  |
| NT1045          | Heater, 208V, 8.5kW                    | NT1117          | Steamer Foot, flanged                 |
| NT1046          | Heater, 240V, 8.5kW                    | NT1104          | Screw, 10-24 x 1/2 SS                 |
| NT1269          | Heater, 208V, 14.4kW                   | NT1217          | Nutsert                               |
| NT1270          | Heater, 240V, 14.4kW                   | NT1202          | Brass Reducer, 1/2 x 1/8              |
| NT1797          | Heater, 208V, 14.4kW (new ver.)        | 161017          | 1/4" X 4" LONG ALUMINUM TUBE          |
| NT1798          | Heater, 240V, 14.4kW (new ver.)        | 161100          | HOSE 5/16" 28" LONG EPDM              |
| 161099          | BEEPER, 120V-240V                      | 161101          | HOSE 3/4" 16.75" LONG EPDM            |
| NT1067          | DP Contactor, Main Power               | 161118          | HOSE 5/16" 12" LONG EPDM              |
| NT1070          | Relay, 220V, Control                   | NT1200          | BRASS TEE- 1/2 FP                     |
| NT1072          | Fan, Convection (Includes Blade Assy.) | NT1555          | BRASS ELBOW FITTING- HOSE BARB X 90   |
| NT1073          | Fuse, 5 Amp                            |                 | DEGREE MALE- BLOCKSTYLE               |
| NT1075          | Thermostat, Hold 100-212 Degrees       | Z004584         | FITTING COMPRESSION 90 1/8NPT X 1/4CC |
| NT1076          | Lamp, Red                              | Z050500         | ELBOW FEMALE 90 DEG                   |
| NT1077          | Lamp, Blue                             |                 |                                       |
| NT1078          | Lamp, Amber                            |                 |                                       |
| NT1079          | Thermostat, Bi-Metal, 325°F            |                 |                                       |
| NT1080          | Thermostat, Bi-Metal 410°F             |                 |                                       |
| NT1083          | Plug, Angle 250V 3PH                   |                 |                                       |
| NT1085          | Timer, 60 Minute                       |                 |                                       |
| NT1086          | Operator, Switch, PB, On               |                 |                                       |
| NT1087          | Operator, Switch, PB, Off              |                 |                                       |
| NT1088          | Mounting Latch, On/Off Switches        |                 |                                       |
| NT1089          | Contact, NC, Off Switch                |                 |                                       |
| NT1090          | Contact, NO, On Switch                 |                 |                                       |
| NT1091          | Switch, Pressure, 1/8" NPT             |                 |                                       |
| NT1092          | Solid State Relay, 75A, AC Input       |                 |                                       |
| NT1093          | Terminal block, 3-pos.                 |                 |                                       |
| NT1098          | Thermometer, Analog 100-220 Degrees    |                 |                                       |
| NT1155          | Aux. Contact, DP Contactor             |                 |                                       |
| 125907          | GASKET, DOOR HY-5 SILICONE             |                 |                                       |
| NT1115          | Hinge, one pair                        |                 |                                       |
| NT1144          | Magnetic Door Latch                    |                 |                                       |
| NT1175          | Stand Caster, 5" Locking               |                 |                                       |
| NT1176          | Stand Caster, 5" Non-locking           |                 |                                       |
| NT1178          | Knob                                   |                 |                                       |
| NT1335          | Nutplate                               |                 |                                       |
| NT1127          | Drain Valve                            |                 |                                       |
| NT1022          | Shell/Top                              |                 |                                       |
| NT1023          | Right Side, Shell                      |                 |                                       |
| NT1151          | Left Side Shell, Louvered              |                 |                                       |
| 161061          | Door Assembly, Intek                   |                 |                                       |
| NT1137          | Auto Fill Control Board with Probes    |                 |                                       |
| NT1028          | Control Panel Overlay                  |                 |                                       |
| 174322          | Check Valve Assembly                   |                 |                                       |
| NT1116          | Heat Sink                              |                 |                                       |
| NT1132          | 3/4 Inch Hose                          |                 |                                       |
| NT1001          | Galvanized Bottom Plate                |                 |                                       |
| NT1003          | Heater Plate, Aluminum                 |                 |                                       |
| NT1120          | Insulation, Chamber bottom             |                 |                                       |
| NT1135          | Lens, Thermometer                      |                 |                                       |
| NT1537          | Inner Door Panel Assembly              |                 |                                       |

## Extreme Steam Element Field Replacement Instructions



### Please Read and Follow the Instruction Below

- Safely remove all power connections, drain lines, and fill lines (if applicable). A stacked unit must be removed from its location (top or bottom) in order to change the element.
- Disconnect the element wires connected to the terminal block.
- Due to the location of the element and the limited space available, you must turn the unit upside down.
- Remove the two side panels.

## Removing the Extreme Steam Heating Element



- Step 1:** Turn the unit upside down and remove the legs using a Crescent Wrench as shown above



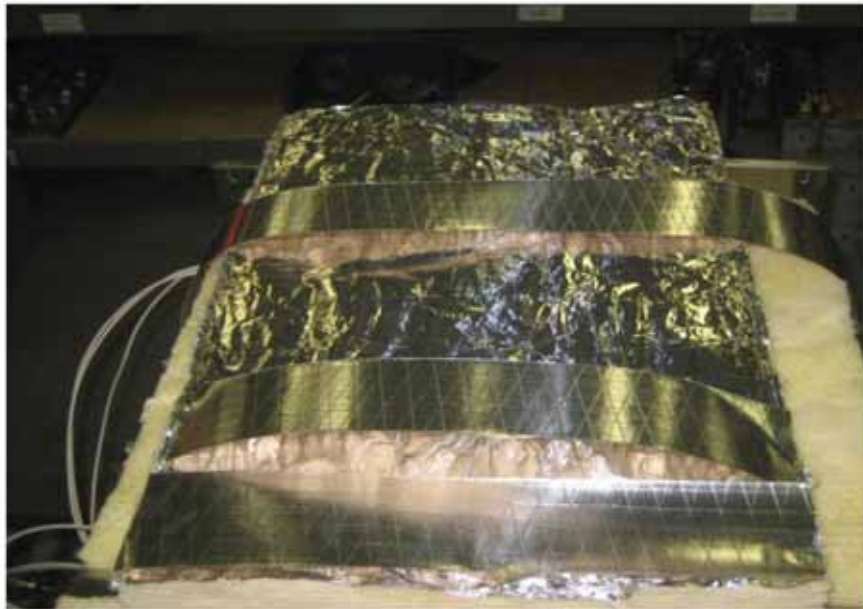
**Step 2:** Remove the drain cover **Part # NT1048** and two screws **Part # NT1105**



**Step 3:** Remove the (5) drip rails Screws **Part# NT 1104**



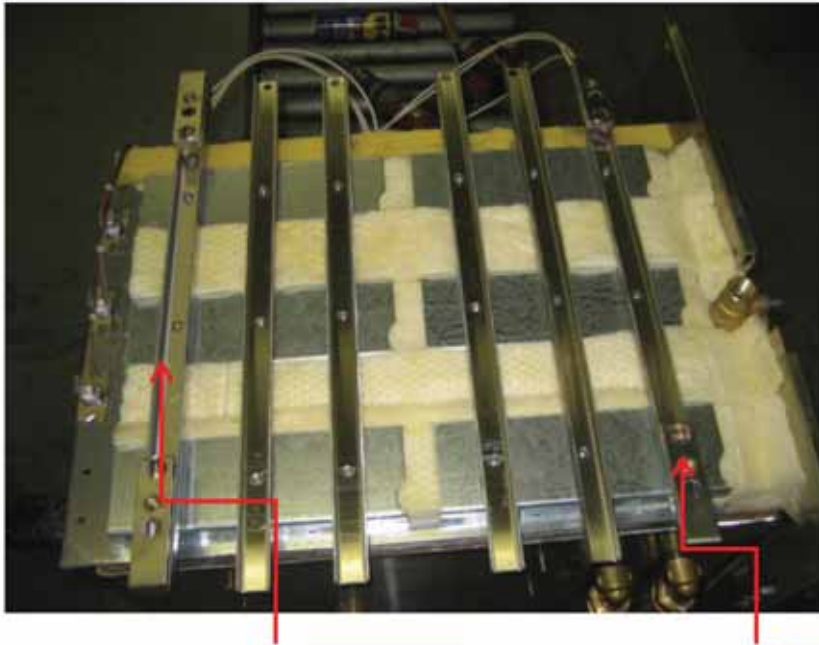
**Step 4:** Remove the bottom and back panel as seen above



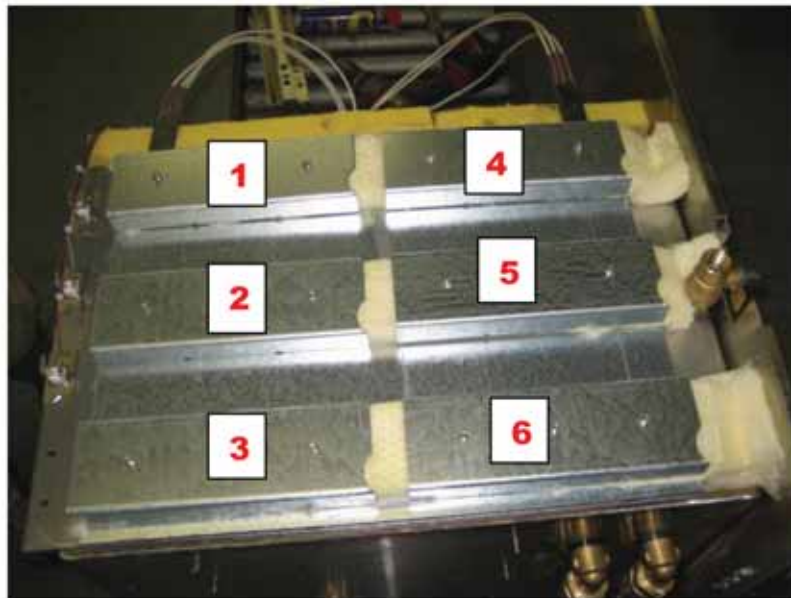
**Step 5:** Remove insulation **Part #1162** shown above



**Step 6:** Remove sheet insulation **Part# 1120**



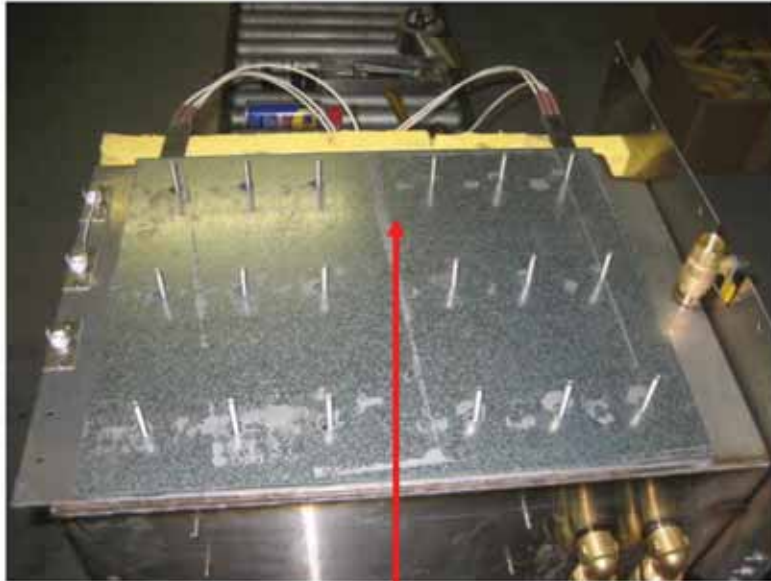
**Step 7:** Remove the U-Brackets and note **tall bracket** is in the rear and the **short bracket** in the front



**Step 8:** Remove the (6) u-channels **Part# NT1014** as seen above

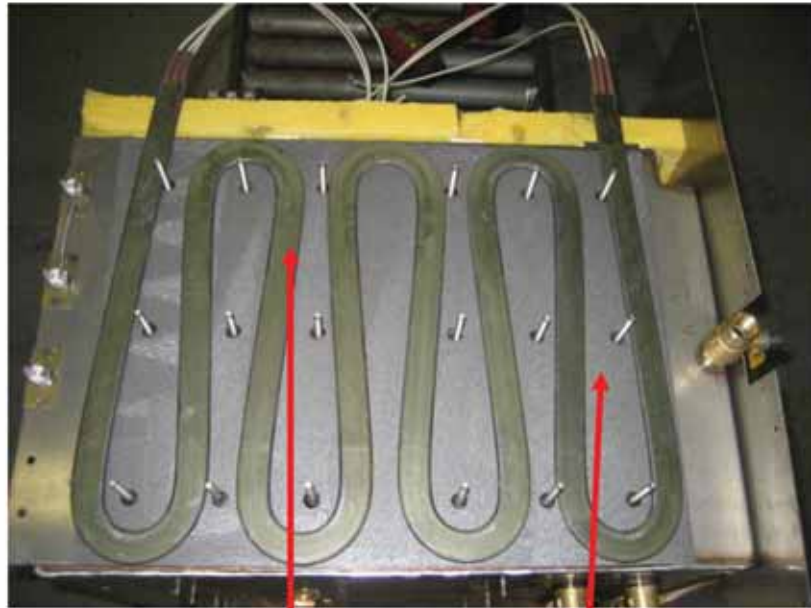


**Step 9:** Remove Insulation **Part# NT1120** from bottom of unit



**Step 10:**

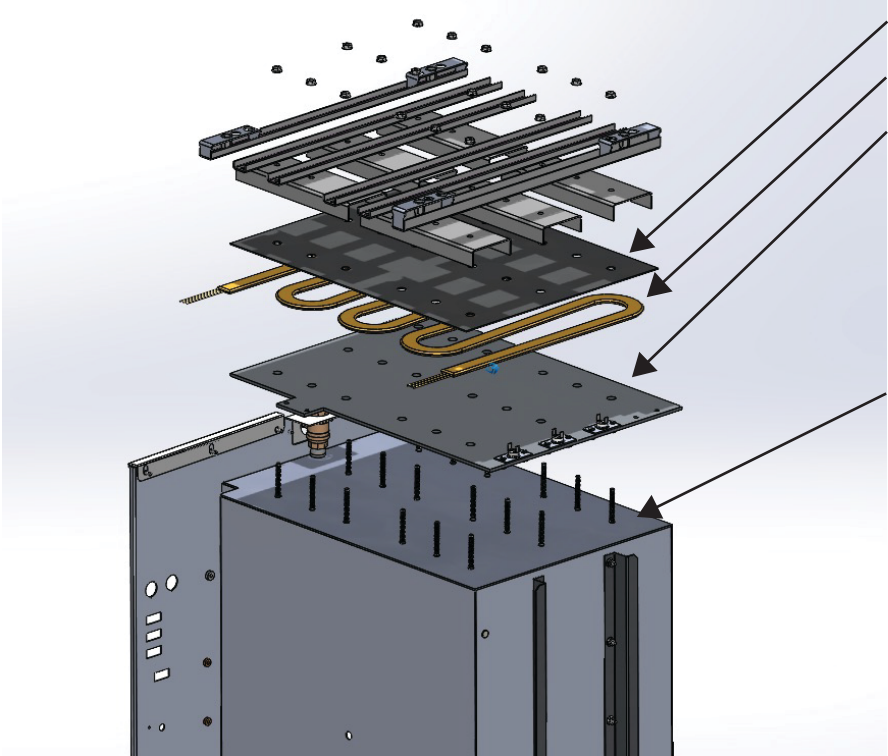
Remove bottom **Galvanized Heater Plate** Part # 1001



**Step 11:**

Remove the **Element** and the **First Heater Plate**

# Installing the Extreme Steam Heating Element



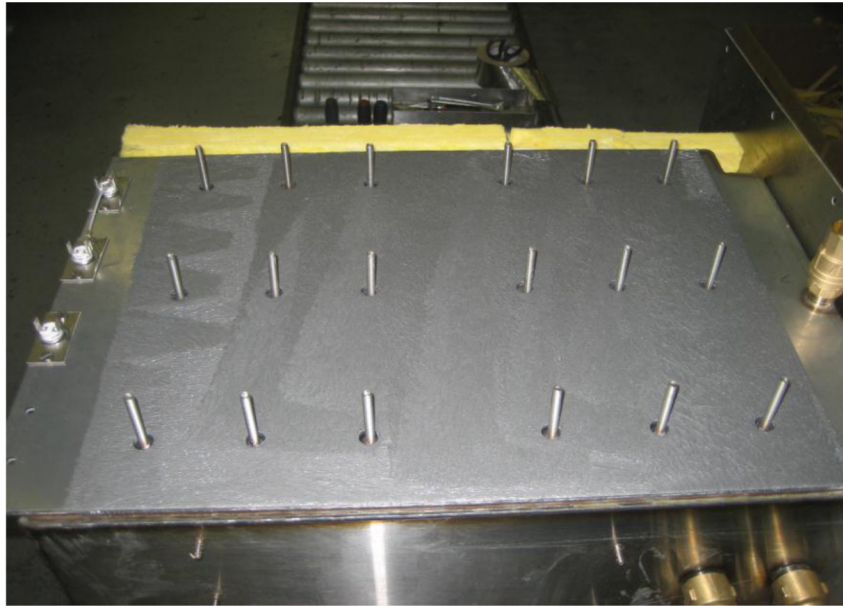
NT1001

ELEMENT

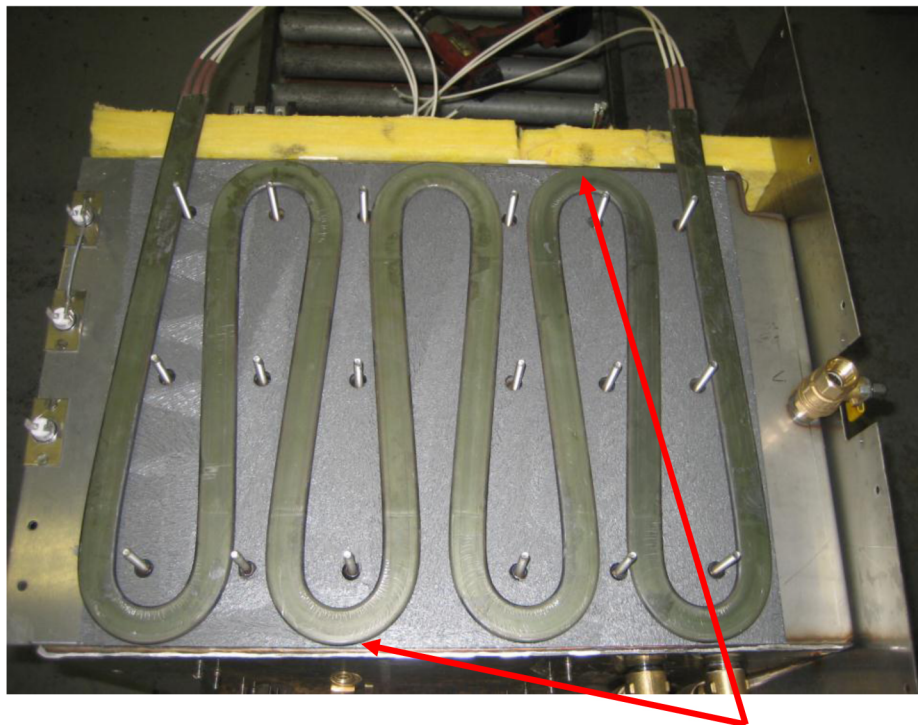
NT1003  
APPLY (PART NUMBER  
143409) THERMAL  
TRANSFER COMPOUND  
INBETWEEN NT1003  
AND THE ELEMENT AND  
NT1001

APPLY (PART NUMBER  
143409) THERMAL  
TRANSFER COMPOUND  
BETWEEN NT1003 AND  
THE BOTTOM OF THE  
STEAMER CAVITY.  
ASSEMBLY TO BE  
COMPLETED WITHIN 30  
MINUTES OF APPLYING  
AND ALLOW 2 HOURS  
MINIMUM TO CURE. DO  
NOT ALLOW  
COMPOUND TO  
CONTACT THERMO-  
STATS. EXCESS TO BE  
REMOVED BEFORE IT  
CURES.

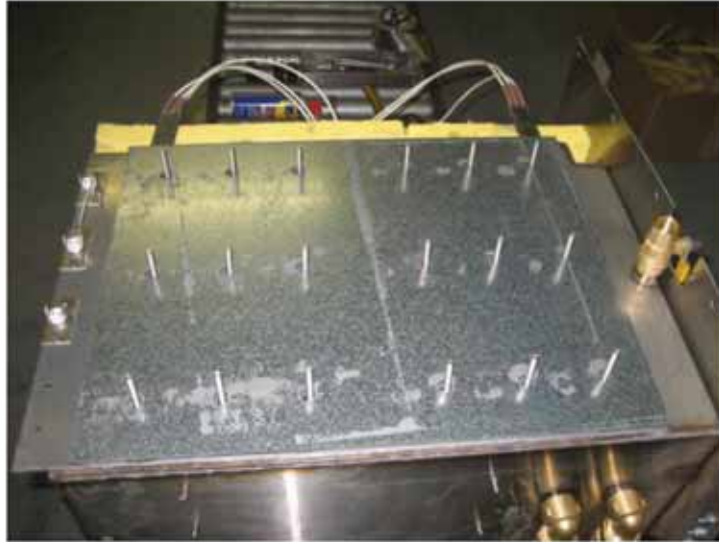
**Step 1:** The heater plate **Part #NT1003** needs to be coated on one side with Thermal Transfer compound using a roller brush.



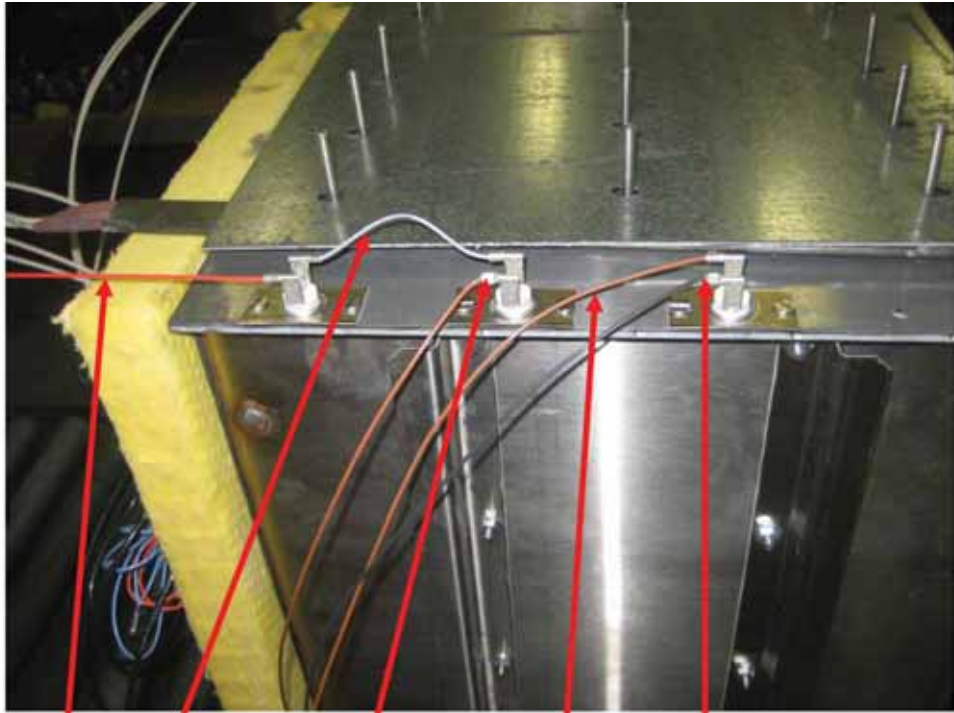
**Step 2:** Turn the unit upside down and install the first Heater Plate **Part# NT1003**



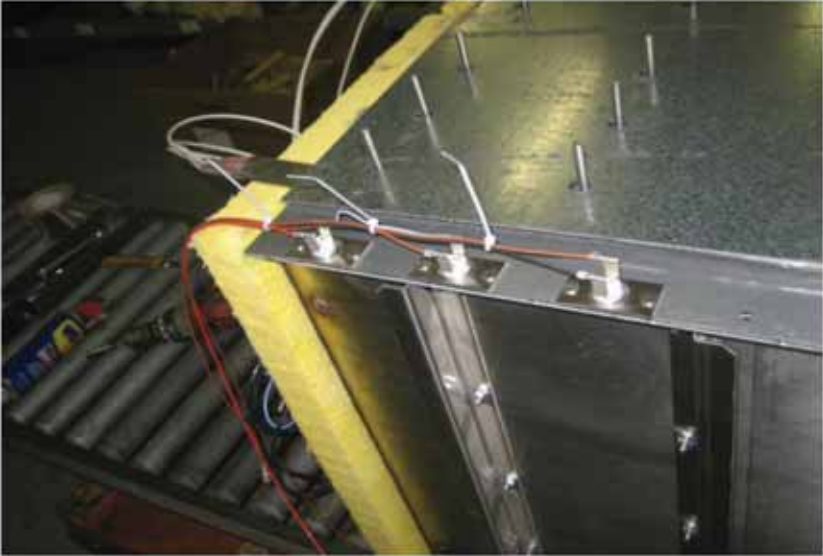
**Step 3:** Slightly bend the element to improve the fit, making sure the **edge of the turns** are not hanging over the heater plate and the element isn't touching the studs at any stud locations



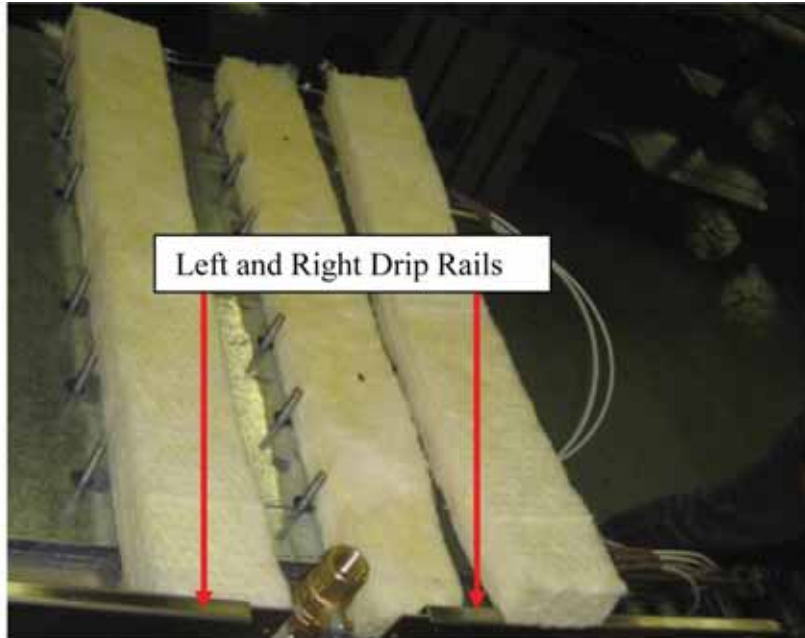
**Step 4:** Install the galvanized bottom heater plate **Part # NT1001**



**Step 5:** Install the **red, jumper, long brown, short brown** and **black** wires as seen above



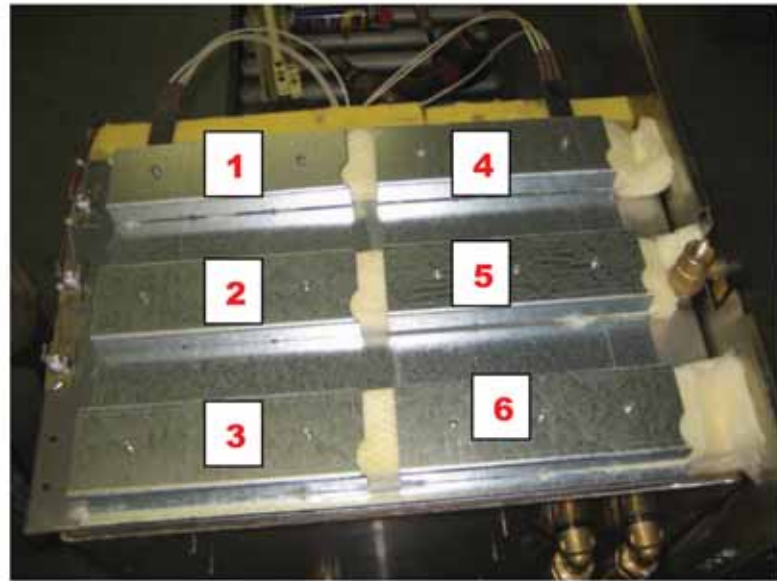
**Step 6:** Zip tie as seen above



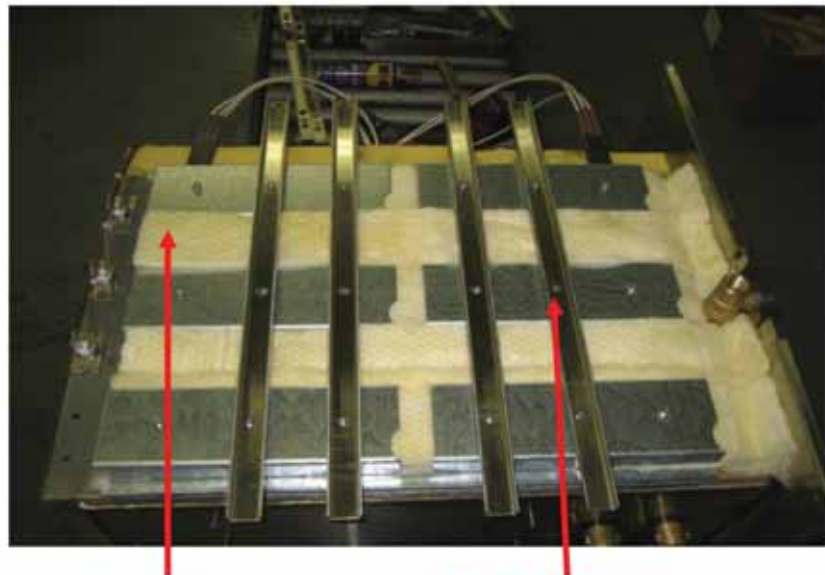
**Step 7:** Install the left drip rail **Part# NT1051** and the right drip rail **Part# NT1052**.  
Set in place but do not attach



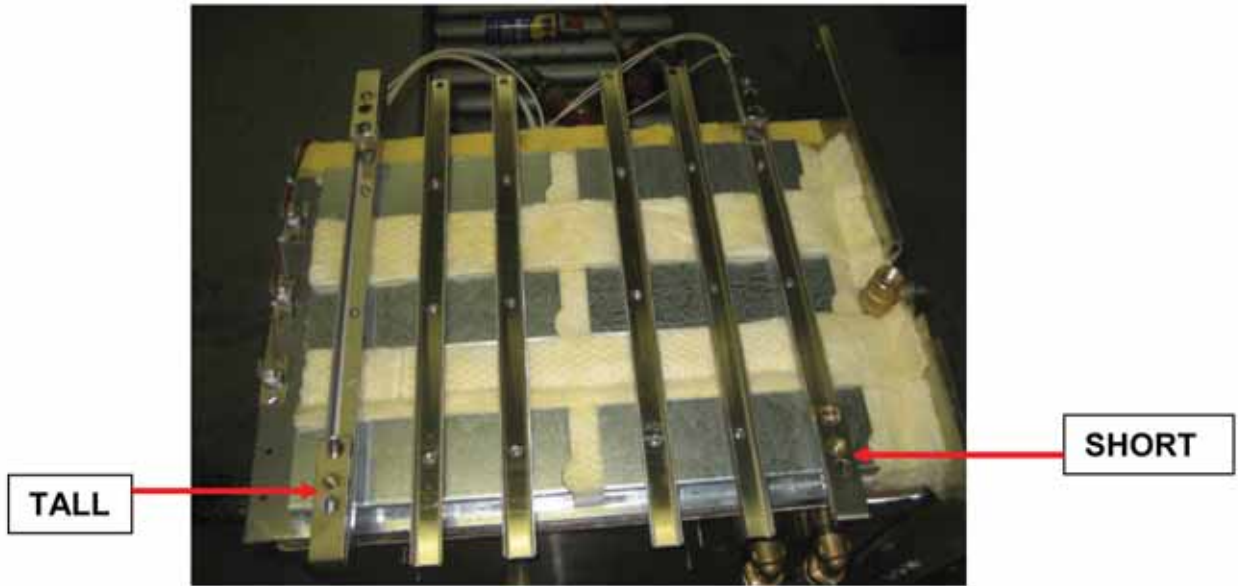
**Step 8:** Place the insulation **Part # NT1120** as seen on the bottom of the unit



**Step 9:** Insert (6) u-channels **Part# NT1014** as seen above



**Step 10:** Add **insulation** and install (4) **Part# NT1016** as seen



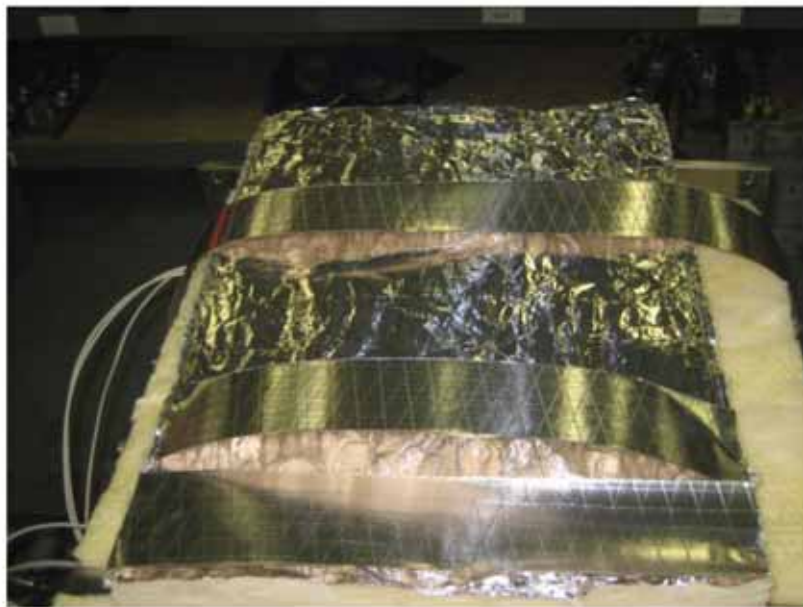
**Step 11:** Install the short and tall U-Brackets towards the front of the unit



**Step 12:** Use Loctite on all the studs prior to tighten the nuts **Part# NT1101**  
Nuts should be tighten with a torque wrench to 80 in/lbs



**Step 13:** Add **Part# NT1120** insulation sheet over the previously tightened brackets

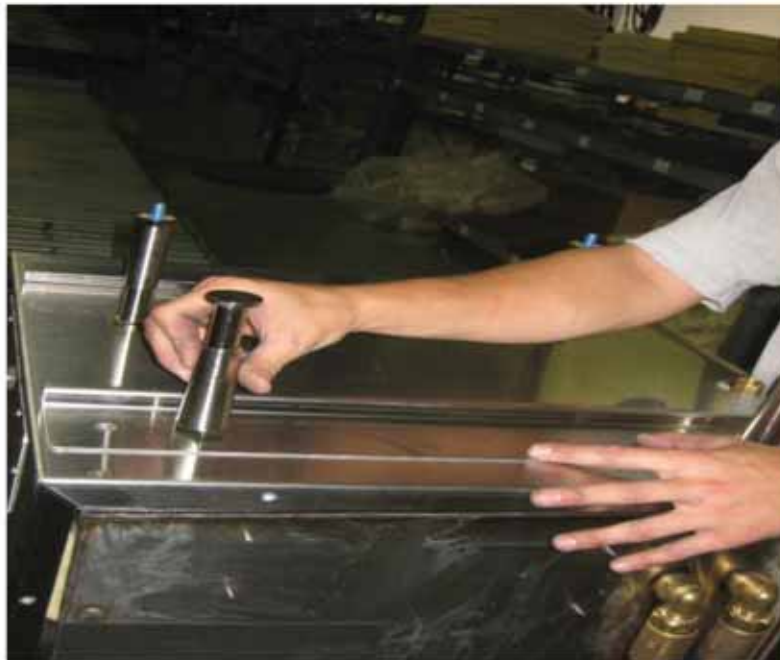


**Step 14:** Place the back insulation **Part# NT1162**



**Step 15:**

Place the bottom back on the unit as shown above



**Step 16:**

Install the two pan holders **Part# NT1027** and install the legs through the pan holders after applying Loctite. Leave the feet slightly tighten for future adjustment



**Step 17:** Secure the drip rails using (5) screws **Part# NT1104**



**Step 18:** Install the drain valve cover **Part# NT1048** using two screws **Part# NT1105**



**Step 19:** Complete assembly by tightening the feet using a Crescent Wrench

**Step 20:** Return unit to its normal upright position and wire elements per wiring diagram

# REPLACING NT1098 THERMOMETER ON INTEK XTREME STEAM



Figure 1

**Step 1:** Safely remove all power connections

**Step 2:** Remove left side panel and remove existing thermometer from front panel



Figure 2

**Step 3:** Cut the insulation in halves and slide the bottom half out to expose the bulb and bracket



Figure 4

**Step 4:** Remove damaged bulb, replace the thermometer bulb 1098 and apply heat sync compound to the bulb. If bracket is replaced apply heat sync compound to the backside of bracket (Compound does not come with the temperature gauge)



**Step 5:** Secure the bracket and bulb using two the 1102 nuts as shown above



**Step 6:** Replace the Insulation; install the gauge, and the left side panel. Reconnect power supply

## Watlo Heater Amp Reading During Operation

|             | AMPS +/- 10% | OHMS Per Element |
|-------------|--------------|------------------|
| 208-14-3000 | 38.9         | 9.3              |
| 208-12-3000 | 33           | 10.5             |
| 208-8-3000  | 22           | 15               |
| 208-8-1000  | 38.5         | 10.5             |
| 208-6-1000  | 28.9         | 20               |
| 240-14-3000 | 33.7         | 12               |
| 240-12-3000 | 28.9         | 14               |
| 240-8-3000  | 19.2         | 20               |
| 240-8-1000  | 33.3         | 14               |
| 240-6-1000  | 25           | 27               |
| 480-12-3000 | 14.4         | 56.6             |

To receive the proper Ohms per element, disconnect all heater leads from the three position terminal block and test 1L1 to 1L1 - 2L2 to 2L2 - 3L3 to 3L3

To read the Amps per unit during normal operation, connect the Amp meter to the incoming power cord leads connecting to the Main Contactor. Amp out each lead.