



**Installation,  
Operation, Maintenance,  
& Troubleshooting**

**Drop-In Teppanyaki Griddle**

**Model: 160TT**

**THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.**

**FOR YOUR SAFETY**  
**DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.**  
**POST IN A PROMINENT LOCATION**  
**INSTRUCTIONS TO BE FOLLOWED IN THE EVENT USER SMELLS GAS. THIS INFORMATION SHALL BE OBTAINED BY CONSULTING YOUR LOCAL GAS SUPPLIER. AS A MINIMUM, TURN OFF THE GAS AND CALL YOUR GAS COMPANY AND YOUR AUTHORIZED SERVICE AGENT. EVACUATE ALL PERSONNEL FROM THE AREA.**

**WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.**

<b>Model #:</b>	<b>Purchased From:</b>
<b>Serial #:</b>	<b>Location:</b>
<b>Date Purchased:</b>	<b>Date Installed:</b>
<b>Purchase Order #:</b>	<b>For Service, Call:</b>

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**CAUTION:** THE GRIDDLE IS EXTREMELY HEAVY. FOR SAFE HANDLING, INSTALLER SHOULD OBTAIN HELP AS NEEDED, OR EMPLOY APPROPRIATE MATERIALS HANDLING EQUIPMENT (SUCH AS A FORKLIFT, DOLLY, OR PALLET JACK) TO REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.



**CAUTION:** ANY STAND, COUNTER OR OTHER DEVICE ON WHICH GRIDDLE WILL BE LOCATED MUST BE DESIGNED TO SUPPORT THE WEIGHT OF THE GRIDDLE.



**CAUTION:** SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.



**DANGER:** THIS APPLIANCE MUST BE GROUNDED AT THE TERMINAL PROVIDED. FAILURE TO GROUND THE APPLIANCE COULD RESULT IN ELECTROCUTION AND DEATH.



**WARNING:** INSTALLATION OF THE UNIT MUST BE DONE BY PERSONNEL QUALIFIED TO WORK WITH ELECTRICITY. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT. UNIT MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.



**NOTICE:** The data plate is on top of the control box. The griddle voltage, wattage, serial number, wire size, and clearance specifications are on the data plate. This information should be carefully read and understood before proceeding with the installation.



**NOTICE:** The installation of any components such as a vent hood, grease extractors, fire extinguisher systems, must conform to their applicable National, State and locally recognized installation standards.



**NOTICE:** During the first few hours of operation you may notice a small amount of smoke coming off the unit, and a faint odor from the smoke. This is normal for a new griddle and will disappear after the first few hours of use.



**CAUTION:** ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.



**CAUTION:** KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY, TO AVOID THE DANGER OF SLIPS OR FALLS.



**IMPORTANT READ FIRST** **IMPORTANT**

**WARNING:** KEEP WATER AND SOLUTIONS OUT OF CONTROLS. NEVER SPRAY OR HOSE CONTROL CONSOLE, ELECTRICAL CONNECTIONS, ETC.



**CAUTION:** MOST CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. PRECAUTIONS SHOULD BE TAKEN TO WEAR RUBBER GLOVES, GOGGLES OR FACE SHIELD AND PROTECTIVE CLOTHING. CAREFULLY READ THE WARNING AND FOLLOW THE DIRECTIONS ON THE LABEL OF THE CLEANER TO BE USED.



**NOTICE:** Service on this, or any other, LANG appliance must be performed by qualified personnel only. Consult your authorized service station directory or call the factory at (314) 678-6315 or [www.langworld.com](http://www.langworld.com) For the service station nearest you.



**WARNING:** BOTH HIGH AND LOW VOLTAGES ARE PRESENT INSIDE THIS APPLIANCE WHEN THE UNIT IS PLUGGED/WIRED INTO A LIVE RECEPTACLE. BEFORE REPLACING ANY PARTS, DISCONNECT THE UNIT FROM THE ELECTRIC POWER SUPPLY.



**CAUTION:** USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LANG OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.



# EQUIPMENT DESCRIPTION

## **Lang Model: 160-TT** **Electric Drop-In Griddle**

### **Exterior**

- The Griddle dimensions are 64" (162.5cm) Wide, 26" (66cm) Deep, and 5 3/8" (13.65cm) High.
- The Sides, Bottom, and Rear are constructed of stainless steel.
- The griddle surface is constructed of 1" thick highly polished steel to reduce hot and cold spots, recovery problems, and ensured even heat through out the griddle.

### **Control Box**

- The Control box dimensions are 26" (66cm) Wide, 4" (10cm) Deep, and 7 1/8 (18cm) High.
- The Sides, Bottom, and Rear walls are constructed of stainless steel.

### **Controls**

The 160-TT Griddle comes standard with three 550° thermostats.

# UNPACKING

## Receiving the Griddle

Upon receipt, check for freight damage, both visible and concealed. Visible damage should be noted on the freight bill at the time of delivery and signed by the carrier's agent. Concealed loss or damage means loss or damage which does not become apparent until the merchandise has been unpacked. If concealed loss or damage is discovered upon unpacking, make a written request for inspection by the carrier's agent within 15 days of delivery. All packing material should be kept for inspection. Do not return damaged merchandise to Lang Manufacturing Company. File your claim with the carrier.

## Location

Prior to un-crating, move the griddle as near its intended location as practical. The crating will help protect the unit from the physical damage normally associated with moving it through hallways and doorways.

## Un-crating

The griddle will arrive completely assembled inside a wood frame covered by cardboard box and strapped to a skid. **Remove the cardboard cover, cut the straps and remove the wood frame.**

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**CAUTION:** ANY STAND, COUNTER OR OTHER DEVICE ON WHICH GRIDDLE WILL BE LOCATED MUST BE DESIGNED TO SUPPORT THE WEIGHT OF THE GRIDDLE.



**CAUTION:** SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.



Remove griddle from skid and place in intended location.

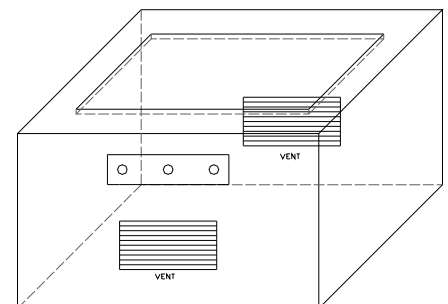
## Cabinet Preparation

Cabinet Base must be constructed of non-combustible material.

Cabinet Base must have cross air ventilation. It does not matter if it is on the ends or sides.

If vents are not installed, the controls may overheat rendering the griddle inoperative.

For best results provide a knockout for the control panel a minimum of 12-inches away from the element boxes on the griddle.



# INSTALLATION

**DANGER:** THIS APPLIANCE MUST BE GROUNDED AT THE TERMINAL PROVIDED. FAILURE TO GROUND THE APPLIANCE COULD RESULT IN ELECTROCUTION AND DEATH.

**WARNING:** INSTALLATION OF THE UNIT MUST BE DONE BY PERSONNEL QUALIFIED TO WORK WITH ELECTRICITY. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT. UNIT MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.

**NOTICE:** The data plate is located on top of the control box. The griddle voltage, wattage, serial number, wire size, and clearance specifications are on the data plate. This information should be carefully read and understood before proceeding with the installation.

**NOTICE:** The installation of any components such as a vent hood, grease extractors, fire extinguisher systems, must conform to their applicable National, State and locally recognized installation standards.

## Installing Griddle into Cabinet

Turn the griddle over, taking care not to kink the thermostat capillary tubes.

Set the griddle on the table that it is to be installed in (leaving a hole big enough to slip the control panel through).

Insert the control panel through the hole and out the control opening of the cabinet.

The hole must be a minimum of 12" from the griddle and such that the control box can come out of the cabinet 18" for serviceability.

Lower the griddle plate to sit flat in the table opening.

## ELECTRICAL CONNECTION

The electrical connection must be made in accordance with local codes or in the absence of local codes with **NFPA No. 70** latest edition (in Canada use: **CSA STD. C22.1**).

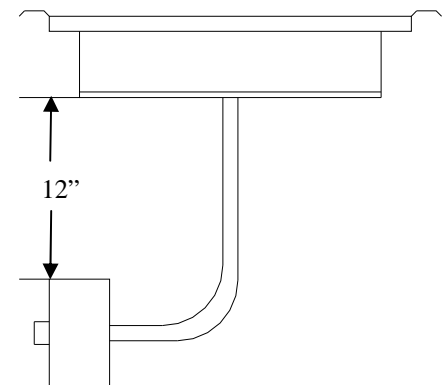
A power connection box is provided for power connection.

This box must be installed a minimum of 18 inches away from the heating elements in the cabinet box.

All electrical connections can be made at this box.

The range can now be connected to power.

**CAUTION:** BE SURE THE POWER SUPPLY VOLTAGE MATCHES THE VOLTAGE SPECIFIED ON THE NAMEPLATE LOCATED ON THE TOP OF THE CONTROL BOX

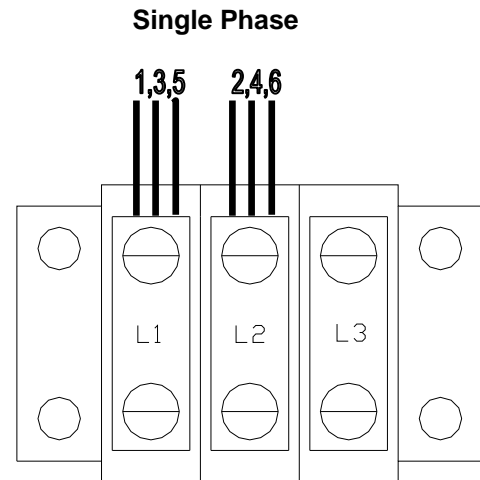
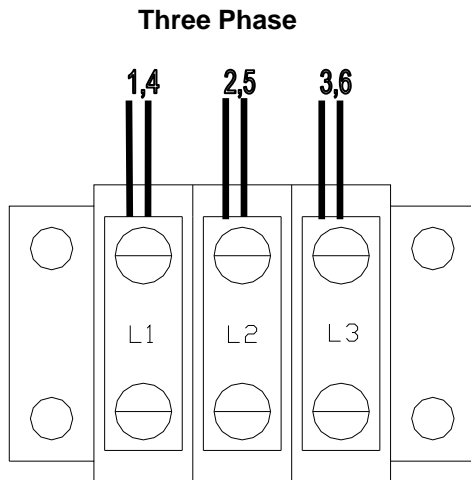




## INSTALLATION CONT'D

Total K.W. Conn	Three Phase									Single Phase	
	208 Volt			240 Volt			480 Volt			208 V	240 V
	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2
18.0	50.0	50.0	50.0	43.3	43.3	43.3	21.7	21.7	21.7	80.5	75.0

### Phasing



## INITIAL START UP

Prior to putting any griddle into full time operation at normal cooking temperatures, it must be thoroughly "seasoned" or dried out. Moisture absorption in the closed spaces, in the insulation and even inside the heating elements can cause future trouble if not properly treated.

Before seasoning the griddle it is first necessary to remove the shipping preservative from the griddle surface. To do this set add a mild detergent to hot water and wash the griddle plate. Rinse with a damp sponge and dry with a clean rag.

To "season" the griddle, set the thermostat dial to 300°. Allow unit to cycle once. Apply a thin coat of high-grade, non-salted vegetable oil to the griddle surface. Rub the oil into the griddle surface with the flat side of a spatula or a towel. Re-coat any dry spots that appear then wait two minutes and wipe off any excess oil. Repeat these steps at 350°, 400°, 450°, 500°, and 550°.

**NOTICE:** During the first few hours of operation you may notice a small amount of smoke coming off the griddle, and a faint odor from the smoke. This is normal for a new griddle and will disappear after the first few hours of use.



## OPERATION

**CAUTION:** ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.

**CAUTION:** KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY, TO AVOID THE DANGER OF SLIPS OR FALLS.



The griddle is provided with two thermostats for controlling the middle two feet of the griddle surface. The outside one-foot of the griddle is not directly heated.

All cooking should be done on the middle three feet of the griddle surface. All holding should be done on outside one foot of the griddle.

The thermostats are provided with indicator lights that will go off when the griddle section reaches the set temperature.

Turn the thermostat dials to the desired cooking temperature and allow the indicator to cycle on and off a minimum of three times before beginning to cook.

If the product is loaded directly over the griddle thermostat the elements will react much quicker and the unit will heat up faster. If the product is loaded to the sides of the griddle thermostat then the reaction time for the elements to come on will be slightly delayed.

Turn the thermostat dial to the off position at the end of the shift.

# MAINTENANCE & CLEANING

## Cleaning

**WARNING:** KEEP WATER AND SOLUTIONS OUT OF CONTROLS. NEVER SPRAY OR HOSE CONTROL CONSOLE, ELECTRICAL CONNECTIONS, ETC.



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The griddle should be thoroughly cleaned at least once a week in addition to the normal daily cleaning to insure against the accumulation of foreign material.

**NOTICE:** Any cleaner used should be marked: “SAFE ON ALUMINUM”.



Electric equipment is inherently clean and sanitary, but may become unsanitary if dirt is allowed to accumulate on it. Take advantage of the clean, sanitary features of electric equipment, give it the regular attention that it deserves the same as any other highly perfected machinery, to insure best results and continued high operating efficiency.

## CALIBRATION

### Calibration Check

- Place thermometer or thermocouple in the center of griddle.
- Set thermostat to 350°F.
- Allow the griddle to Preheat for at least half an hour.
- Note cycle on temperatures and cycle off temperatures for 3 cycles. (Red indicator light indicates when oven is calling for heat)
- After 3 cycles average the temperature. ( Add all six temperatures and divide by 6)

### Calibration Adjustment

- A 1/16” flat blade screwdriver with a 2” shaft is required to make adjustments on the thermostat.
- Maintain the oven temperature at 350°.
- Without turning the thermostat, remove the knob.
- Locate the adjustment screw at the base of the shaft and insert the screwdriver.
- Grasp the shaft and turn the screwdriver. Counter clockwise to increase and clockwise to decrease (1/8 of a turn will move the temperature 5-7 ° in either direction).
- Reinstall the oven knob and recheck the oven temperature.

# TROUBLESHOOTING

## Symptoms

What follows is a chart of Symptoms, Possible Causes, and Remedy's to aid in diagnosing faults with the oven.

Refer to the Symptoms column to locate the type of failure then to the Possible Cause for the items to be checked and the Remedy to column for possible solutions.

SYMPTOM	POSSIBLE CAUSE
Griddle will not heat	<ul style="list-style-type: none"> <li>• No power to Unit</li> <li>• Defective Thermostat</li> <li>• Defective element</li> </ul>
Product is under cooked	<ul style="list-style-type: none"> <li>• No power to Range</li> <li>• Thermostat out of calibration</li> </ul>
Product is burning	<ul style="list-style-type: none"> <li>• Thermostat out of calibration</li> </ul>

## TESTS

### **NOTICE:**

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### **WARNING:**

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If an item on the list is followed by an asterisk (\*), the work should be done by a factory authorized service representative.

POSSIBLE CAUSE	TEST
Product is cooked too long	<ul style="list-style-type: none"> <li>• No test available, operational condition</li> </ul>
Failed thermostat	<ul style="list-style-type: none"> <li>• Verify calibration</li> </ul>
Failed element	<ul style="list-style-type: none"> <li>• Remove the wires and check for continuity across the element *</li> </ul>

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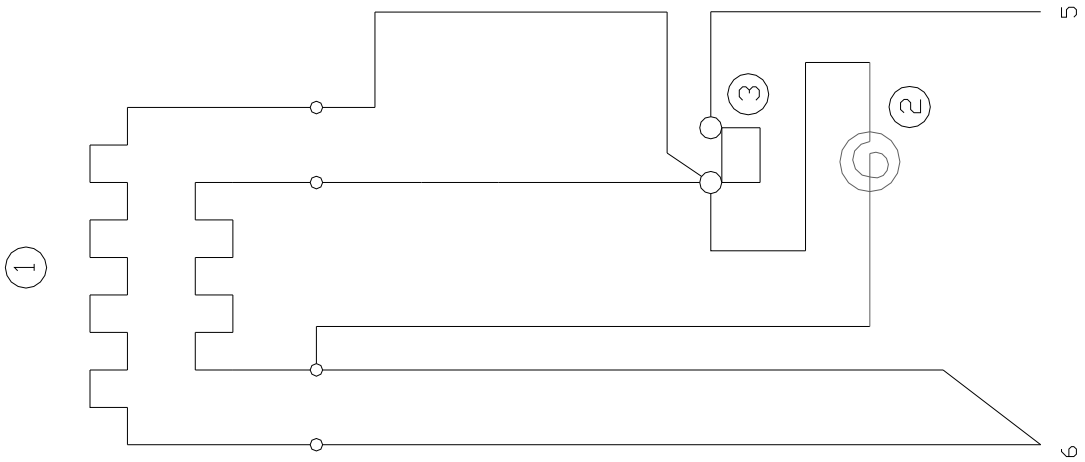
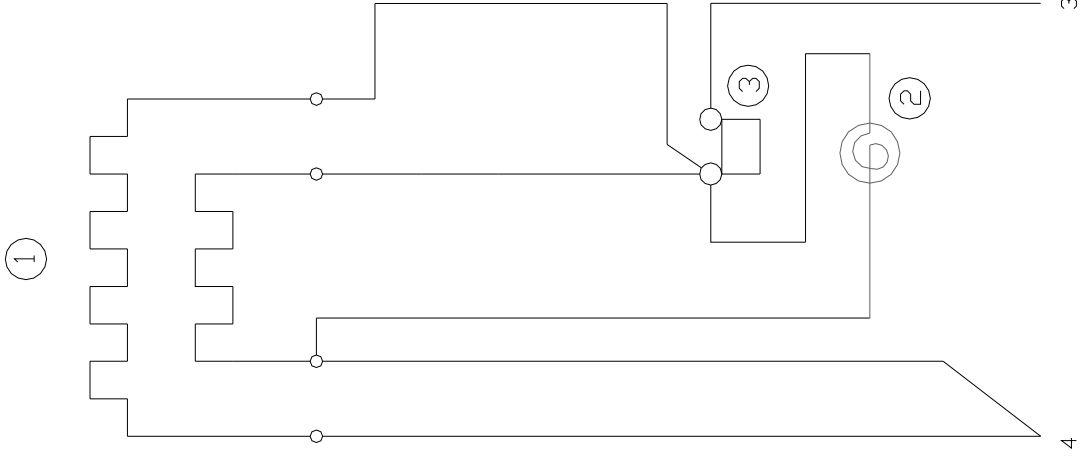
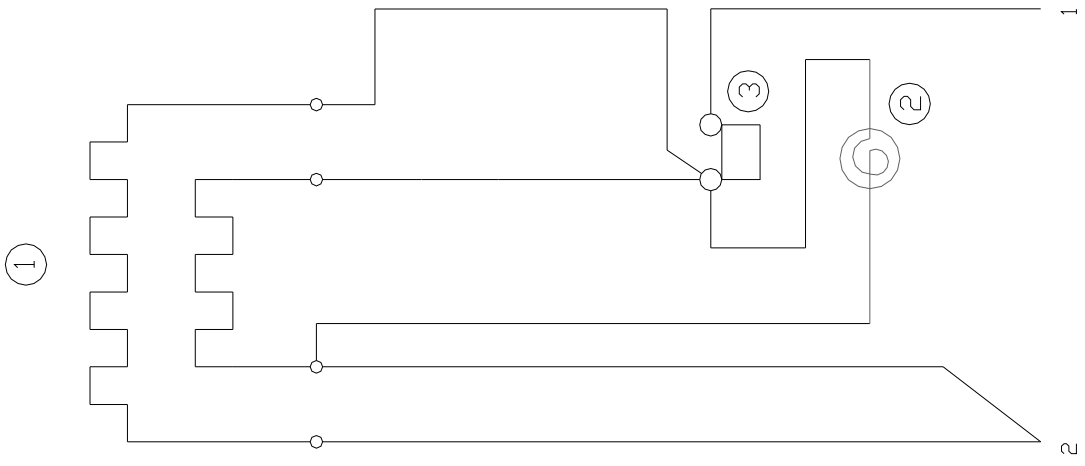
# PARTS LIST

May 31, 2007, Rev. B

## 160TT Drop-In Teppanyaki Griddle

Part No.	DESCRIPTION	QTY	Application
2E-30303-06	Switch toggle ON-ON DPDT Black	1	160TT-208V12 & V18
2E-30500-07	TERMINAL BLOCK 3PLELRGE 125AMP	2	160TT-208V12 & V18
2E-30701-03	Contactora 2-Pole, 35 Amp	2	160TT-208V12
Y9-31601-01-1	Pilot Light 250 Volt, 6" Lead, Blk Body	2	160TT-208V12
Y9-31601-01-1	Pilot Light 250 Volt, 6" Lead, Blk Body	3	160TT-208V18 & 240V18
2N-11030-29	Griddle Element 208 / 240Volt O/S 4500 Watts / 5991 Watts	2	160TT-208V12
2N-11030-29	GRIDLE ELEMENT 208V/240VOLT 4500 WATTS /5991 WATTS	3	160TT-208V18 & 240V18
2N-11030-30	Griddle Element, Perimeter 208 Volt I/S 1297 Watts	2	160TT-208V12
2N-11030-30	Griddle Element, Perimeter 208 Volt I/S 1297 Watts	3	160TT-208V18
2T-30402-07	Thermostat 550° F 48" Capillary Tube	2	160TT-208V12
2T-30402-07	Thermostat 550° F 48" Capillary Tube	3	160TT-208V18 & 240V18
K9-DI-900-1	WELD PLATE DI GRID 60" - 2	1	160TT-208V12
K9-DI-900-2	WELD PLATE DI GRID 60" - 3	1	160TT-208V18 & 240V18
Y9-70701-12	Knob Assembly 550°F A	2	160TT-208V12
Y9-70701-12	Knob Assembly 550°F A	3	160TT-208V18 & 240V18

# WIRING DIAGRAM 208 VOLT



# WIRING DIAGRAM 240 / 480 VOLT

