

OWNERS MANUAL  
INSTALLATION, OPERATION, & MAINTENANCE INSTRUCTIONS



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**ELECTRIC RESTERANT RANGES**

**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.

**FOR YOUR SAFETY**

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

**PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE**

**IMPORTANT**

Electrical wiring from the electric meter, main control box or service outlet to appliance must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code ANSI/NFPA 70-(latest edition). Canada, conform with Canadian Electrical Code CSA-C22.2.

**IMPORTANT**

Installing, Operating and Service Personnel:

Installation of the equipment should be performed by qualified, certified, licensed and/or authorized personnel who are familiar with and experienced in state/local installation codes. Operation of the equipment should be performed by qualified or authorized personnel who have read this manual and are familiar with the function of the equipment. Service of the equipment should be performed by qualified personnel who are knowledgeable with Imperial Ranges.

**SHIPPING DAMAGE CLAIM PROCEDURE**

The equipment is inspected & crated carefully by skilled personnel before leaving factory. The transportation company assumes full responsibility for safe delivery upon acceptance of this equipment. If shipment arrives damaged:

1. Visible loss or damage: Note on freight bill or express delivery and have signed by person making delivery.
2. File claim for damages immediately: Regardless of extent of damages.
3. Concealed loss or damage: If damage is noticed after unpacking, notify transportation company immediately and file "Concealed Damage" claim with them. This should be done within fifteen (15) days from date delivery is made to you. Retain container for inspection.

## **RATING PLATE**

The rating plate is located in front of the range below the oven section (7" from the floor). Information on this plate includes the model and serial numbers. When communicating with factory about a unit or requesting special parts or information, this data is essential for proper identification. The Salamander broiler or Cheesemelter (if provided) is supplied with its own rating plate located on the unit.

### **IMPERIAL COOKING APPLIANCES MUST BE CONNECTED ONLY TO THE TYPE OF GAS IDENTIFIED ON THE RATING PLATE**

## **CLEARANCES**

The appliance area must be kept free and clear of all combustibles. This unit is design-certified for the following installations only:

The clearances from **combustible** and **noncombustible** construction for ranges and range mounted Salamander broiler or Cheesemelter are as follows:

	<u>Combustible</u>	<u>Noncombustible</u>
Back	4"	0
Sides	10"	0

If legs or casters are not used, the unit must extend 2" beyond the front edge of a noncombustible curb or platform.

## **LEVELING**

A carpenter's level should be placed on the center across the range top and the unit leveled both front-to-back and side-to-side. If it is not level, cakes, casseroles, and any other liquid or semi-liquid batter will not bake evenly, burner combustion may be erratic and the unit will not function efficiently.

If the floor is relatively smooth and level, the unit may be further leveled with adjustment in the foot of the leg. Adjust to the high corner and level the unit with metal shims if the adjustment required exceeds the 1 ¼" adjustment available. Units with casters must be leveled with shims. A unit will probably not return to the same position after being moved, requiring re-leveling after each move.

## **AIR SUPPLY & VENTILATION**

The area in front of, around, and above the appliance must be kept clear. Adequate clearance must be maintained at all times in front and at the sides of the appliances for servicing and proper operation.

Means must be provided for any commercial, heavy-duty cooking appliance to exhaust combustion waste products to the outside of the building. Usual practice is to place the unit under an exhaust hood. Filters and drip troughs should be part of any industrial hood, but consult local codes before construction and installing a hood.

## **CONVECTION OVEN – ELECTRICAL CONNECTION**

Imperial ranges with CONVECTION OVEN the motor is internally wired. The electrical service in the building must be in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70 or the Canadian Electrical Code, CSA C22.2, as applicable. Wiring diagram is located on the backside of the unit. **FOLLOW LOCKOUT-TAGOUT PROCEDURES.**

## ASSEMBLY

The range is shipped fully assembled, except for the legs, high back and shelf. The range is provided with 6" (152mm) adjustable stainless steel legs (hardware included), packaged in a box located inside the oven. A set of 6" (152mm) casters are available as an optional field installable accessory.

RANGE SERIES	LEGS TO INSTALL	CASTERS TO INSTALL
IR-4-E	4	4
IR-6-E	4	4
IR-10-E	4	4

## INSTALLATION OF LEGS/CASTERS

1. Carefully lift range to access the bottom for leg or casters installation
2. For leg installation thread leg directly into base insuring leg is tight up against unit base.
3. Align holes in caster mounting plate with pre-drilled holes in bottom of range located in each of the four corners
4. Attach mounting plate to bottom of range using four ¼" x 5/8" self tapping screw (provided).

NOTE: The locking casters should be mounted on the front.

A permanently connected appliance mounted on casters and intended to be secured to the building structure should adhere to the following:

- a. Adequate means must be provided to limit the movement of the appliance without depending on or transmitting stress to the electrical conduit
- b. The appliance shall be installed using a flexible conduit.

If the range is installed on casters and is moved for any reason, it is recommended that the range be re-leveled front to back and side to side for even baking.

## ELECTRICAL CONNECTIONS

### WARNING

**Electrical and grounding connections must comply with the applicable portions of the National Electrical Code and/or other local electrical codes.**

### WARNING

**Disconnect electrical power supply and place a tag at the disconnect switch to indicate that you are working on the circuit.**

Position the range in its final location. Bring conduit containing the proper supply wire to the range through the knockout located on the J box. Select the size and type of field wire in accordance with the National Electrical code suitable for carrying the equipment's rated amps and voltage. Use field wires suitable for 75°C on units carrying more than 80 amps.

Note: if you have purchased a 60" or 72" model, it will have two (2) electrical connections. The left and the right portions of the range are supplied with individual branch circuits, the connection points are found in 2 J boxes.

### **CAUTION**

**The 60" & 72" unit has more than one source of electrical supply. Each source MUST be connected in accordance with the National Electric Code (latest edition) or other local codes.**

Connect supply leads to field terminal block and green grounding lead to the labeled ground lug. The supply wire should be anchored through the access hole with bulkhead fitting. Ranges are shipped wired for 3-phase or 1-phase service but may be changed in the field. Refer to wiring diagram and schematic decal attached to the range for necessary alterations.

### **OPERATION**

### **WARNING**

**The range and its parts are hot. Be very careful when operating, cleaning or servicing the range.**

### **ELEMENT CONTROLS**

Infinite load switches that control and maintain heat to the surface plates. The controls are arranged in pairs; the left knob controls the front plate and the right knob controls the rear plate. NOTE: On 480 v, units cast iron plates are controlled by a selector switch allowing settings from high to low.

### **HOT TOP SWITCH**

A thermostat (1-10) controls and maintains heat to the top section. Select desired heat level, (1 is minimum, 10 is maximum).

### **GRIDDLE THERMOSTAT**

Regulates the amount of heat needed to maintain the set temperature. Each 12" (305 mm) section of the griddle has its own thermostat with a temperature range of 200°F (93°C) to 550°F (288°C).

### **OVEN THERMOSTAT**

Regulates the amount of heat needed to control and maintain oven temperature around the desired set temperature. The temperature range is from 200°F (93°C) to 550°F (288°C). Turn dial counterclockwise to increase temperature and clockwise to decrease temperature.

### **ELEMENTS**

Element plates are most efficient when used with utensils having a maximum inside diameter of 10" (254) or a minimum inside diameter of 9" (229). Stock pots of 9, 12 and 16 qt. capacities are recommended for bulk cooking.

NOTE: It is important that the utensil used has a flat bottom that sits uniformly on the surface of the plate. Utensils with curved bottoms (either through design or warped from use) will have poor contact and therefore poor heat transfer. This will result in poor cooking performance.

The solid surface plates are rated for 2000 watts and are controlled by an infinite heat switch. A solid surface plate will reach cooking temperature from room temperature in 5 to 7 minutes at a HI switch setting. Each control knob is marked HI and LO. The Hi setting is full heat. Use the Hi setting to start cooking quickly and to bring water to a boil.

**Some DO's and DON'T's of surface cooking.**

1. Do use utensils to fit the tops (9" to 10" [229 to 254 mm] inside diameter.
2. Do use flat-bottom, straight-sided pots and pans.
3. Do use covers for stock pot work. Water will boil much sooner and much less heat is required for cooking in a covered container. Less water may be used thereby retaining vitamins and minerals in the food.
4. Do turn off plates a few minutes before cooking is completed to use the heat stored in the plate.
5. Do not allow surface plates to idle unloaded. The surface plates will reach very high temperatures and this can cause the casting to warp or dome. Plates idled at a setting of MED-LO with a pot of water on them and turned to HI when loaded will perform bulk cooking jobs just as rapidly, without damage to the plates.

**GRIDDLE**

**CAUTION**  
**This griddle plate is steel, but, the surface is relatively soft and can be scored or dented by the carless use of a spatula or scraper. Be careful not to dent, scratch or gouge the plate surface. Do not try to knock off loose food that may be on the spatula by tapping the corner edge of the spatula on the griddle surface.**

Griddles are supplied with an 3000 watt heating element per 12" of griddle surface. Each heating element is individually controlled by a thermostat with a range of 200°F to 550°F (93°C to 288°C).

The griddle will preheat to 400°F (204°C) in approximately 10 minutes or will come up to 400°F (204°C) from a 300°F (149°C) setting in 3 minutes. During breakfast, you may set one control at 300°F (149°C) for eggs and the other at 375°C (191°C) for pancakes, bacon, etc. During lunch, you might use the whole area at 350°F (177°C) for hamburgers or set one side for hamburgers and the other at 400°F (204°C) for minute steaks and grilled cheese sandwiches.

Between serving periods, foods that take longer to cook, such as soup or stew, may be simmered in a large container set on the griddle surface. If no grilled items are to be served, pans of food may be kept hot on the griddle at a setting of 200°F to 250°F (93°C to 121°C).

STANDARD VOLTAGES - 208 VOLTS OR 240 VOLTS 50/60 Hz - SINGLE OR THREE PHASE																
480 VOLTS 50/60 Hz - THREE PHASE ONLY																
MODEL NO.	TOTAL CONN. KW	TOTAL KW PER CONN.	3 PHASE LOADING KW PER PHASE PER CONN.			NOMINAL AMPS PER LINE WIRE CONN.										
						3 PHASE									1 PHASE	
						208 VOLT			240 VOLT			480VOLT			208	240
			L1-L2	L2-L3	L1-L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	VOLT	VOLT
IR-G24-XB	6	6	3	0	3	16.6	16.6	16.6	14.5	14.5	14.5	7.2	7.2	7.2	28.8	25
IR-G36-XB	9	9	3	3	3	25	25	25	21.6	21.6	21.6	10.8	10.8	10.8	43.2	37.5
IR-G48-XB	12	12	3	6	3	33.4	33.4	33.4	29	29	29	14.4	14.4	14.4	51.6	50
** IR-G60-XB	15	6	3	0	3	16.6	16.6	16.6	14.5	14.5	14.5	7.2	7.2	7.2	28.8	25
		9	3	3	3	25	25	25	21.6	21.6	21.6	10.8	10.8	10.8	43.2	37.5
* IR-G72-XB	18	9	3	3	3	25	25	25	21.6	21.6	21.6	10.8	10.8	10.8	43.2	37.5
		9	3	3	3	25	25	25	21.6	21.6	21.6	10.8	10.8	10.8	43.2	37.5
*** STD. OVEN	5.3	5.3	0	0	5.3										14.7	12.7
CON. OVEN	5.3	5.3	0	0	5.3										18.4	17.2

\* NOTE: Two separate conduit connections must be made: each connection carries one-half of the rated load.

\*\* NOTE: Two separate conduit connections must be made: each connection carries 6 KW, the other connection carries 9 KW.

\*\*\* NOTE: Use chart per (1) oven. Add Amp draw to cooktop for total unit Amps.

## OVEN

### **CAUTION**

**Never cover the oven deck or rack with aluminum foil. The oven will not operate properly and the range may be damaged.**

### **Preheating**

Thoroughly preheat the oven by setting the switch and the thermostat to the desired temperature. For full loads and delicate baked products, it may be desirable to allow the oven to cycle a second time before loading.

### **Roasting**

Place meat on a rack in an open pan with sides sufficiently high to retain the drippings. For best results, roast at the low temperatures of 200°F (93°C) to 325°F (163°C) recommended by the Department of Agriculture and the American Meat Institute. Most meats may be roasted with the infinite heat switch set at HI. If heavy browning on poultry is not desired, the switch should be set between MED-LO and VERY-LO.

### **POWER OUTAGE**

If a power outage occurs, the range will automatically shut down. When power is restored, the range will automatically resume normal functions. If the range is left unattended during the power outage, turn all control knobs/switches OFF. When power is restored, turn desired control knobs/switches back ON. The unit will be preheated in 5 minutes and normal cooking operations can be resumed.

### **FINAL PREPARATION**

#### **A. TOP SECTION**

New units are wiped clean with solvents at the factory to remove any visible signs of dirt, oil, or grease remaining from thin film or nontoxic rust protectant. Food preparation surface should be washed thoroughly with hot, soapy water before being used.

#### **B. GRIDDLE**

New griddles should be seasoned following this sequence:

- (1) Clean the griddle surface thoroughly with hot, soapy water to remove the protective oil coating wiped on at the factory.
- (2) Rinse with a mixture of ¼ cup vinegar to one quart water.
- (3) Spread unsalted solid shortening or liquid frying compound evenly over the entire griddle surface.
- (4) Turn all thermostats to 350 degrees and wait until the shortening begins to smoke, then turn the thermostats "off".
- (5) Rub the now-melted shortening into the griddle surface with burlap, moving in the direction of the surface's polish marks and covering the entire surface.
- (6) Let the griddle cool, then repeat steps 3,4, & 5.
- (7) When the griddle is cool after the second seasoning, wipe it once again with a thin film of shortening or cooking oil.

#### **C. OVENS**

On initial installation, turn the oven to 250 degrees and operate for about 1 hour, then reset the thermostat to its maximum and operate for another hour. This will drive off any solvents remaining in the unit. At the end of this second hour, turn the thermostat OFF, open the door and allow the unit to cool. Oven should then be thoroughly washed using hot, soapy water before being used.

### **CLEANING AND MAINTENANCE**

Any piece of equipment works better and lasts longer when maintained properly. Cooking equipment is no exception. Your Imperial range and oven must be kept clean during the working day and thoroughly cleaned at the end of the day.

**WARNING**  
**DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING**

**CAUTION**  
**NEVER USE AMMONIA IN AN OVEN THAT IS WARMER THAN  
ROOM TEMPERATURE AND ALWAYS HAVE DIRECT VENTILATION!**

**DAILY:**

**GRIDDLES:**

1. Scrape with a nylon griddle scraper to remove cooked on spills. Use a fine grained stone only when absolutely necessary.
2. Wipe away any griddle stone dust and food particles with burlap.
3. Wash with hot, soapy water, then rinse with vinegar and water.
4. Rinse again with clear water.
5. Re-oil with shortening or liquid frying compound.
6. **DO NOT FLOOD A HOT GRIDDLE WITH COLD WATER!** This promotes griddle warping and can cause the griddle to crack if continued over a long period of time.

**ALL OVENS:**

1. Remove the baking racks. Wash in hot soapy water and replace after the rest of the oven is cleaned.
2. Remove the oven element cover by lifting it out from the front then sliding forward, out of the oven.
3. Scrape off any food particles with a nylon griddle scraper. Be very careful about scratching the porcelain finish on the oven liner panels.
4. Wash all the above with hot soapy water, then reassemble.
5. Baked on spills may be loosened and stubborn stains removed with ordinary household ammonia and scrubbing with a nylon pad in a cold oven only.
6. Do not allow spray type oven cleaners to come into contact with the temperature probe or element in the oven.
7. After cleaning the oven, rinse well with ¼ cup of vinegar to one quart of clear water solution to neutralize any caustic residue of the cleaning compound. Wipe dry.

**CONVECTION OVEN:**

8. To increase the life of the motor follow these instructions:
  - a. Never run oven with motor off.
  - b. After you finish cooking and the oven is not to be used for more then ½ hour, place the toggle switch to the “COOL DOWN” position and open the door. When oven temperature is equal to room temperature turn unit off.

### **PERIODIC CLEANING:**

Check the ventilation system periodically to see that nothing has fallen down into the stub back, high riser or high shelf exhaust vents.

Lubricate the pivot pins of the oven door hinge where the right and left arms connect to the door. Use a multipurpose lubricating oil sparingly so as to not drip oil needlessly.

Your Imperial range should be checked for safe and efficient operation at least yearly by a qualified service company.

### **STAINLESS STEEL:**

All stainless steel body parts should be wiped regularly with hot soapy water during the day and with a liquid cleaner designed for this material at the end of each day. **DO NOT USE** steel wool. Abrasive cloths, cleansers or powders to clean stainless surface! If it is necessary to scrape stainless steel to remove encrusted materials, soak in hot water to loosen the material, then use a wood or nylon scraper. **DO NOT USE** a metal knife, spatula, or any other metal tool to scrape stainless steel! Scratches are almost impossible to remove.

### **TIPS ON USING IMPERIAL CONVECTION OVEN**

1. In general, reduce temperature 50° from conventional recipe.
  - a. Bakery products, reduce temperature 50°. Time 25 to 33% less.
  - b. Casserole cookery, reduce temperature about 50° and time 25 to 50%
  - c. Meat roasting, reduce temperature to 275° - 300°. Use meat thermometer. Cooking time may be reduced up to 50%.
2. Use fan for preheating and baking.
3. Check product at ½ stated time of regular recipe.
4. Level pans bake more evenly: warped pans will give uneven baking results.