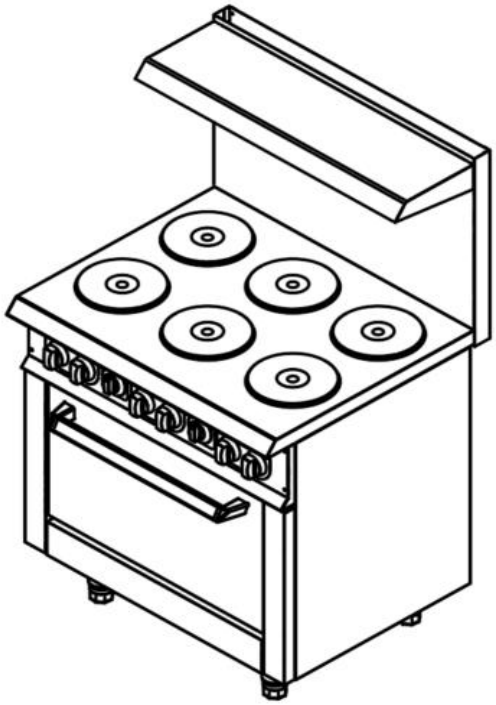
# INSTALLATION & OPERATION MANUAL

# ELECTRIC RANGES

Models:

| | | | | | | |
|---|---|---|---|---|---|---|
| HZ-ER24 208 | HZ-ER24-12G 208 | HZ-ER24-24G 208 | HZ-ER36 208 | HZ-ER36-12G 208 | HZ-ER36-24G 208 | HZ-ER36-36G 208 |
| HZ-ER24 240 | HZ-ER24-12G 240 | HZ-ER24-24G 240 | HZ-ER36 240 | HZ-ER36-12G 240 | HZ-ER36-24G 240 | HZ-ER36-36G 240 |
| HZ-ECR24 | HZ-ECR24-12G 208 | HZ-ECR24-24G 208 | HZ-ECR36 208 | HZ-ECR36-12G 208 | HZ-ECR36-24G 208 | HZ-ECR36-36G 208 |
| HZ-ECR24 | HZ-ECR24-12G 240 | HZ-ECR24-24G 240 | HZ-ECR36 240 | HZ-ECR36-12G 240 | HZ-ECR36-24G 240 | HZ-ECR36-36G 240 |



HZ-ER36 208
HZ-ER36 240

⚠ **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.

## READ THIS MANUAL IN ITS ENTIRETY BEFORE USING

## IMPORTANT. Installing, Operating and Service Personnel:

Safe and satisfactory operation of your equipment depends to a great extent on its proper installation. Installation must conform with local codes, or in the absence of local codes, to the National Electrical Code, ANSI/NFPA-70 (latest edition). In Canada, Installation should conform to Canadian Electrical Code CSA-C22.2.

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) or the Canadian Electrical Code CSA-C22.2.

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 functions of the equipment.

## SHIPPING DAMAGE:

The equipment is inspected and crated carefully by skilled personnel before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of this equipment. Upon receipt of shipment,

immediately unpack and check for possible shipping damage. If the range is found to be damaged, save the packaging material and contact the carrier immediately.

## RATING PLATE:

The rating plate is located in the front of the range below the oven section behind the kick plate on the left side. Information on this plate includes the model, serial number, power input, ampere draw and clearances. This data is essential for proper identification when communicating with the factory regarding a unit, requesting parts or information.

## ELECTRIC DATA:

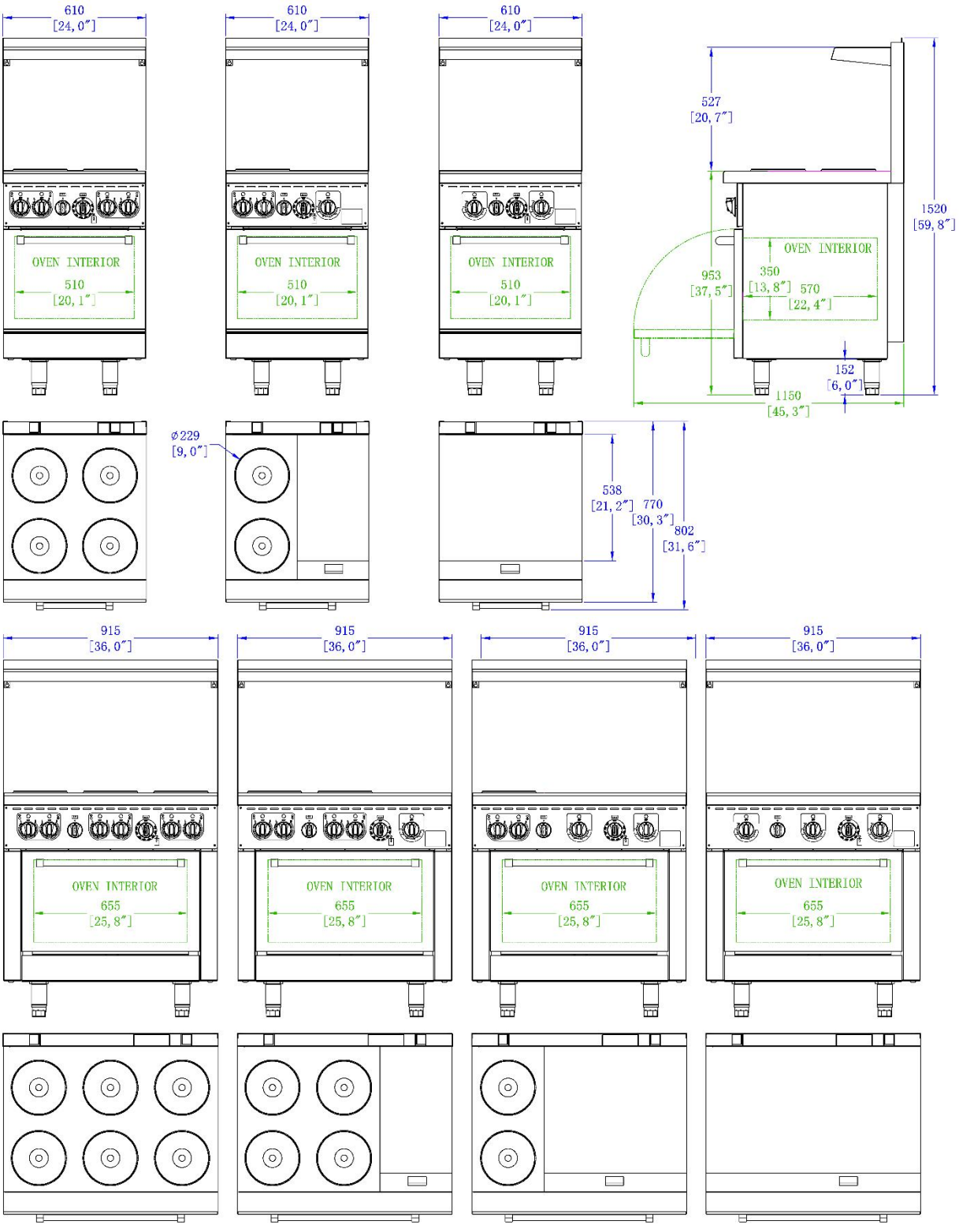
**MUST BE CONNECTED ONLY TO THE VOLTAGE OF IDENTIFIED ON THE RATING PLATE**

| Model | Voltage | Phase | Amps (1P/3P) | Total Heating Power | Top heat plate Power | Bottom oven Power Broil & Oven | Top Griddle Power |
|---|---|---|---|---|---|---|---|
| *ER24 208<br>*ECR24 208 | 208V | Single / 3 | 62.5 / 37.5 | 13 kW | 2kW*4 | 1.25kW + 3.75kW | N/A |
| ER24 240<br>*ECR24 240 | 240V | Single / 3 | 54.2 / 32.5 | 13 kW | 2kW*4 | 1.25kW + 3.75kW | N/A |
| ER24-12G 208<br>*ECR24-12G 208 | 208V | Single / 3 | 62.5 / 37.5 | 13 kW | 2kW*2 | 1.25kW + 3.75kW | 4kW |
| ER24-12G 240<br>*ECR24-12G 240 | 240V | Single / 3 | 54.2 / 32.5 | 13 kW | 2kW*2 | 1.25kW + 3.75kW | 4kW |
| ER24-24G 208<br>*ECR24-24G 208 | 208V | Single / 3 | 62.5 / 37.5 | 13 kW | N/A | 1.25kW + 3.75kW | 4kW*2 |
| ER24-24G 240<br>*ECR24-24G 240 | 240V | Single / 3 | 54.2 / 32.5 | 13 kW | N/A | 1.25kW + 3.75kW | 4kW*2 |
| ER36 208<br>*ECR36 208 | 208V | Single / 3 | 81.7 / 54.1 | 17 kW | 2kW*6 | 1.25kW + 3.75kW | N/A |
| ER36 240<br>*ECR36 240 | 240V | Single / 3 | 70.8 / 46.9 | 17 kW | 2kW*6 | 1.25kW + 3.75kW | N/A |
| ER36-12G 208<br>*ECR36-12G 208 | 208V | Single / 3 | 81.7 / 54.1 | 17 kW | 2kW*4 | 1.25kW + 3.75kW | 4kW |
| ER36-12G 240<br>*ECR36-12G 240 | 240V | Single / 3 | 70.8 / 46.9 | 17 kW | 2kW*4 | 1.25kW + 3.75kW | 4kW |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ER36-24G 208<br>*ECR36-24G 208 | 208V | Single / 3 | 81.7 / 54.1 | 17 kW | 2kW*2 | 1.25kW + 3.75kW | 4kW*2 |
| ER36-24G 240<br>*ECR36-24G 240 | 240V | Single / 3 | 70.8 / 46.9 | 17 kW | 2kW*2 | 1.25kW + 3.75kW | 4kW*2 |
| ER36-36G 208<br>*ECR36-36G 208 | 208V | Single / 3 | 81.7 / 54.1 | 17 kW | N/A | 1.25kW + 3.75kW | 4kW*3 |
| ER36-36G 240<br>*ECR36-36G 240 | 240V | Single / 3 | 70.8 / 46.9 | 17 kW | N/A | 1.25kW + 3.75kW | 4kW*3 |

ER series: Static oven (without motor and fan) *ECR series: Convection oven (with motor and fan)
Available in 208 and 240 volts, 1 and 3 phase.

## PLAN VIEWS :



## CLEARENCES:

The appliance area must be kept free and clear of all combustibles.

Install only in noncombustible surroundings.

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

| | Combustible | Noncombustible |
|---|---|---|
| Back | 6” | 0 |
| Sides | 6” | 0 |

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

## LEVELING:

Place a Carpenter’s level on the oven’s center baking rack. The unit should be leveled both front-to-back and sideto-side. If it is not level, cakes, casseroles and any other liquid or semi-liquid batter will not bake evenly and the unit will not function efficiently. The unit may be leveled by adjusting the foot of the leg. Units with casters must be leveled with shims. A unit may not return to the same position after being moved, requiring re-leveling after each and every move.

## ASSEMBLY:

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

## 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.

## ELECTRICAL CONNECTIONS

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 82 amps.

**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.**

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

### 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.

### 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 450°F (232°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 “H” and “L”. The Hi setting is full heat. Use the “H” setting to start cooking quickly and to bring water to a boil.

### Tips 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 “L” with a pot of water on them and turned to “H” when loaded will perform bulk cooking jobs just as rapidly, without damage to the plates.

### GRIDDLE

Griddles are supplied with an 4000 watt heating element per 12” of griddle surface. Each heating element is individually controlled by a thermostat with a range of 200°F to 450°F (93°C to 232°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).

**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**.**

### CONVECTION OVEN

ER series Static oven, without convection motor and fan.
*ECR series provides one or two convection motor and fan, 24“ range oven with one fan, 36”range oven with two fans.
ECR provided hot air circulation during cooking, making the temperature field more uniform, the chef can open oven door and turn on the fan to accelerate cooling after cooking.

**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. Most meats may be roasted with the infinite heat switch set at “H”. If heavy browning on poultry is not desired, the switch should be set between Med-“L” and Very-“L”.

### 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

### TOP HOT PLATE

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

### 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.

### 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.

### DAILY:

### GRIDDLES:

1. Scrape with a nylon griddle scrapper 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 “ON” position and open the door. When oven temperature is equal to room temperature turn unit off.

**WARNING**

DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING

### 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.