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OWNER'S MANUAL
INSTRUCTIONS, INSTALLATION, OPERATION, MAINTENANCE
RRE SERIES (ELECTRIC RANGE & CONVECTION)

****READ THIS MANUAL IN ITS ENTIRETY BEFORE USING****

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

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.

RETAIN THIS MANUAL FOR FUTURE REFERENCES.

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-C22.1.**

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-C22.1.**

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.

Service of the equipment should be performed by qualified personnel who are knowledgeable with ROYAL RANGE OF CALIFORNIA, INC.

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.

ROYAL RANGE COOKING APPLIANCES MUST BE CONNECTED ONLY TO THE POWER INPUT IDENTIFIED ON THE RATING PLATE.

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.

LEVELING:

Place a Carpenter's level on the oven's center baking rack. The unit should be 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 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.

INSTALLATION OF LEGS/CASTERS:

1. Carefully lift range to access the bottom for leg/caster installation.
2. Align holes from leg/caster with pre-drilled holes on bottom of range located in each of the four corners. NOTE: 60" and 72" ranges have additional pre-drilled holes on the bottom of the range located in the middle front and middle rear for (2) additional legs to support and distribute the weight.
3. Attach legs/casters with #14 x ¾" slotted hex head screw (provided). If casters are to be installed, the locking casters should be mounted in 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 location(s) where restraining means are to be attached to the appliance, must be on the outside rear part of the chassis frame of the range.
c) 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.

INSTALLATION INSTRUCTIONS:

The area around the appliance must be kept free and clear of combustibles such as solvents, cleaning liquid, broom, rags, etc. Proper clearances must be provided at the front of the appliance for servicing and proper operation.

Provisions shall be incorporated in the design of the kitchen, to ensure that the electrical service agrees with the specifications on the rating plate located behind the kick plate on the left side.

The installation must conform to local codes, or in the absence of local codes, to the National Electrical Code ANSI/NFPA 70-(latest edition) or the Canadian Electrical Code CSA-C22.1.

"CAUTION – HOT SURFACE"
"ATTENTION SURFACE CHAUDE"

WARNING: RISK OF ELECTRIC SHOCK - APPLIANCE MUST BE SECURED TO BUILDING STRUCTURE" SEE INSTALLATION INSTRUCTION IN THE OWNER'S MANUAL.

AVERTISSEMENT : RISQUE DE CHOC ÉLECTRIQUE - APPAREIL DOIT ÊTRE FIXÉ À STRUCTURE DE CONSTRUCTION " VOIR INSTALLATION INSTRUCTION DANS LE MANUEL DU PROPRIÉTAIRE.

CAUTION – TO REDUCE THE RISK OF FIRE, INSTALL ONLY IN NONCOMBUSTIBLE SURROUNDINGS. SEE INSTALLATION INSTRUCTIONS."

CAUTION – TO REDUCE THE RISK OF FIRE; USE ONLY NONCOMBUSTIBLE MOUNTING FLOORS. SEE INSTALLATION INSTRUCTIONS."
ATTENTION - POUR RÉDUIRE LE RISQUE D'INCENDIE , INSTALLER SEULEMENT DANS LES ENVIRONS INCOMBUSTIBLE. VOIR LES INSTRUCTIONS D'INSTALLATION . "

ATTENTION - POUR RÉDUIRE LE RISQUE D'INCENDIE , UTILISEZ SEULEMENT ÉTAGES DE MONTAGE incombustible VOIR LES INSTRUCTIONS D'INSTALLATION "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 hole located in the junction box on the back of the range. 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.

Royal Range Electrical appliances have a single point power connection at the terminal block. Check for single phase or three phase connection and connect accordingly. 208V or 240V single and three phase wires must be properly connected as shown in the wiring diagram located on the back of the appliance. Do not cut or remove the grounding wire. Disconnect power supply before cleaning or servicing. The electrical service in the building must be equipped with a properly grounded receptacle, 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 Codes, CSA-C22.1.**

NOTE: This appliance is not capable of being operated in the event of power failure. No attempt should be made to operate this appliance during a power failure.

NOTE: If you have purchased a 48", 60" or 72" model, it will have two (2) electrical connections. The left and right portions of the range are supplied with individual branch circuits, the connection points are found on the back of the range on the left and right sides.

NOTE: The 48", 60" and 72" ranges have 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 a 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.

CONTROLS:

Hot Plate Controls:	Infinite load switches that control and maintain heat to the hot plate (top surface heaters). The controls are arranged in pairs; the left knob controls the rear hot plate and the right knob controls the front hot plate. Note: On 480V units, hot plates are controlled by a selector switch allowing settings from high to low.
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 500°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 500°F (288°C). Turn dial clockwise to increase temperature and counterclockwise to decrease temperature.
Oven Indicator Light:	Will be lit when the oven is heating and will remain lit until the selected temperature is reached.

HOT PLATE ELEMENTS:

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

NOTE: It is important that the utensils used have 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 heat transfer. This will result in poor cooking performance.

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

TIPS FOR HOT PLATE COOKING:

1. Use utensils to fit the hot plate (9" to 10" [229 to 254 mm] inside diameter.
2. Use flat-bottom, straight-sided pots and pans.
3. 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. Turn off hot plates a few minutes before cooking is completed to use the heat stored in the plate.
5. A hot plate should not idle unloaded. The hot plate will reach very high temperatures, which can cause the casting to warp or dome. Hot 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 hot plate.

GRIDDLE:

WARNING: This griddle plate is steel, but the surface is relatively soft and can be scored or pitted by the carless use of a spatula or scraper. Be careful not to scratch, score or pit 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 a 3400 watt heating element per 12" of griddle surface. Each heating element is individually controlled by a thermostat with a range of 200°F (93°C) to 500°F (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.

OVEN:

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

Each oven is equipped with a top and bottom heating element that are controlled by one thermostat. **The top element is not a broiler element** and will not operate independently from the bottom element**.** The oven has an input of 5000 watts total, 4000 watts for the bottom element and 1000 watts for the top element.

PREHEATING:

Thoroughly preheat the oven by setting 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.

STANDARD OVEN:

1. Turn thermostat dial to desired temperature.
2. Indicator light will come on indicating the oven is heating.

CONVECTION OVEN:

1. Turn power switch to "ON".
2. Turn thermostat dial to desired temperature.
3. Indicator light will come on indicating the oven is heating.
4. Choose speed of fan.
5. Set timer.
6. Before running cool down mode, ensure oven thermostat is in the "OFF" position.

ROASTING:

Place meat on a rack in an open pan with sides sufficiently high to retain the drippings. For best results, roast at low temperature of 200°F (93°C) to 325°F (163°C) (recommended by the Department of Agriculture and American Institute.)

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.

FINAL PREPARATION:

TOP SECTION:

New units are wiped clean with solvents at the factory to remove any visible signs of dirt, oil or grease. Food preparation surface should be washed thoroughly with hot soapy water before using.

GRIDDLE:

New griddles should be seasoned by following these steps and start from cold:

1. Clean the griddle surface thoroughly with hot soapy water to remove the protective oil coating applied at the factory.
2. Rinse with a mixture of ¼ cup vinegar to one quart water.
3. Apply unsalted solid shortening or liquid frying oil evenly over the entire griddle surface.
4. Turn ON all griddle thermostats to 350°F, wait until the shortening/oil begins to smoke, then turn the thermostats OFF.
5. Carefully rub the now-melted shortening into the griddle surface with a soft cloth, moving in the direction of the surface polish marks and covering the entire surface.
6. Let the griddle cool, then repeat steps 3, 4 & 5 as needed.

OVEN:

On initial installation, turn the oven ON to 250°F and operate for about 1 hour, then reset the thermostat to its maximum setting 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. For Convection Oven, before running cool down mode, ensure oven thermostat is in the "OFF" position. When cool, oven should then be thoroughly washed using hot soapy water before using.

CLEANING AND MAINTENANCE:

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.

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

DAILY:

TOP SECTION:

Establish a regular cleaning schedule. Any spills should be wiped off immediately. The unit should be allowed to cool down before cleaning any exterior surfaces. Wipe exposed cleanable surfaces when cool with mild detergent and hot water. Dry thoroughly with a cloth.

GRIDDLE:

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 a soft cloth.
3. Wash with hot soapy water, then rinse with vinegar and water.
4. Rinse again with clear water.
5. Re-season with shortening/oil.

WARNING: Do not apply cold water to a hot griddle. This promotes griddle warping and can cause the griddle to crack.

OVEN:

1. Remove the baking racks. Wash in hot soapy water and replace after the rest of the oven is cleaned.
2. Scrape off any food particles with a nylon griddle scraper. Be very careful about scratching the porcelain finish on the oven liner panels.
3. Remove the oven bottom by lifting up the front and sliding it forward out of the oven.
4. 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.
5. Do not allow spray type oven cleaners to come into contact with the temperature probe or heating element in the oven.
6. After cleaning the oven, rinse well with a mixture, ¼ cup of vinegar to one quart of clear water solution to neutralize any caustic residue of the cleaning compound.
7. Wipe dry with a soft cloth.

PERIODIC CLEANING:

Check the ventilation system periodically to see that nothing has fallen down into the exhaust vents. Lubricate the pivot pins of the oven door hinge. Use multiple purpose lubricating oil sparingly so as to not drip oil needlessly.

STAINLESS STEEL PARTS

Do not use steel wool, abrasive cloths, cleaners or powders to clean stainless steel surfaces. All stainless steel parts should be wiped regularly with hot soapy water during the day and with a stainless steel liquid cleaner at the end of the day. 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.

ELECTRICAL DATA

STANDARD VOLTAGES - 208 VOLTS, 240 VOLTS, 50/60 Hz, SINGLE OR THREE PAHSE											
MODEL	TOTAL	208 VOLTS 3 PH			208 VOLTS 1 PH		240 VOLTS 3 PH			240 VOLTS 1 PH	
	KW	L1	L2	L3	L1	L3	L1	L2	L3	L1	L3
RRE-6	17	50	52	50	84	84	43	46	43	74	74
RRE-4-GT12	16.4	48	48	48	81	81	42	42	42	71	71
RRE-2-GT24	15.8	46	46	46	78	78	40	40	40	68	68
RRE-GT36	15.2	45	45	45	75	75	39	39	39	66	66

ADDITONAL	TOTAL	208 VOLTS 3 PH			208 VOLTS 1 PH		240 VOLTS 3 PH			240 VOLTS 1 PH	
CONFIGURATIONS	KW	L1	L2	L3	L1	L3	L1	L2	L3	L1	L3
2 HP	4				20	20				17	17
4 HP	8				32	32				28	28
GT12	3.4				15	15				13	13
GT24	6.8				30	30				26	26
OVEN (Range or Convection)	5				24	24				21	21

KEYS

HP = HOT PLATE (2 PER 12" SECTION)

GT = GRIDDLE (12, 24 OR 36" SECTION)

WARNING: All ranges over 36 inches in width have two electrical connections. Ensure both power supplies have been disabled before beginning service on appliance.

Ranges ordered over 36 inches wide are constructed as follows:

48" RANGES

RRE-2-GT36-126	Consists of a RRE-GT36 and a 2 HP
RRE-4-GT24-126	Consists of a RRE-2-GT24 and a 2 HP
RRE-6-GT12-126	Consists of a RRE-4-GT12 and a 2 HP
RRE-8-126	Consists of a RRE-6 and a 2 HP
RRE-GT48-126	Consists of a RRE-GT36 and a GT12

60" RANGES

RRE-2-GT48	Consists of a RRE-2-GT24 and a GT24 with OVEN
RRE-4-GT36	Consists of a RRE-GT36 and a 4 HP with OVEN
RRE-6-GT24	Consists of a RRE-6 and a GT24 with OVEN
RRE-8-GT12	Consists of a RRE-4-GT12 and a 4 HP with OVEN
RRE-10	Consists of a RRE-6 and a 4 HP with OVEN
RRE-GT60	Consists of a RRE-GT36 and a GT24 with OVEN

72" RANGES

RRE-2-GT60	Consists of a RRE-2-GT24 and a RRE-GT36
RRE-4-GT48	Consists of a RRE-4-GT12 and a RRE-GT36
RRE-6-GT36	Consists of a RRE-6 and a RRE-GT36
RRE-8-GT24	Consists of a RRE-6 and a RRE-2-GT24
RRE-10-GT12	Consists of a RRE-6 and a RRE-4-GT12
RRE-12	Consists of a RRE-6 and a RRE-6
RRE-GT72	Consists of a RRE-GT36 and a RRE-GT36