



# INSTALLATION AND OPERATION MANUAL

## GARLAND S680, SS680 & SU680 SERIES RESTAURANT RANGES AND SALAMANDERS



**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

PLEASE READ ALL SECTIONS OF THIS MANUAL  
AND RETAIN FOR FUTURE REFERENCE.

THIS PRODUCT HAS BEEN CERTIFIED AS  
COMMERCIAL COOKING EQUIPMENT AND  
MUST BE INSTALLED BY PROFESSIONAL  
PERSONNEL AS SPECIFIED.

INSTALLATION AND ELECTRICAL CONNECTION  
MUST COMPLY WITH CURRENT CODES:  
IN CANADA - THE CANADIAN ELECTRICAL  
CODE PART 1 AND / OR LOCAL CODES.  
IN USA - THE NATIONAL ELECTRICAL CODE  
ANSI / NFPA - CURRENT EDITION.

ENSURE ELECTRICAL SUPPLY CONFORMS WITH  
ELECTRICAL CHARACTERISTICS SHOWN ON  
THE RATING PLATE.

Users are cautioned that maintenance and repairs must be performed by a Garland authorized service agent using genuine Garland replacement parts. Garland will have no obligation with respect to any product that has been improperly installed, adjusted, operated or not maintained in accordance with national and local codes or installation instructions provided with the product, or any product that has its serial number defaced, obliterated or removed, or which has been modified or repaired using unauthorized parts or by unauthorized service agents. For a list of authorized service agents, please refer to the Garland web site at <http://www.garland-group.com>. The information contained herein, (including design and parts specifications), may be superseded and is subject to change without notice.

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## **IMPORTANT INFORMATION**

**WARNING:**

**This product contains chemicals known to the state of California to cause cancer and/or birth defects or other reproductive harm. Installation and servicing of this product could expose you to airborne particles of glass wool/ceramic fibers. Inhalation of airborne particles of glass wool/ceramic fibers is known to the state of California to cause cancer.**

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# DIMENSIONS AND SPECIFICATIONS, MODELS S, SU & SS684

Model	Total Kw Load	208V/1Ph	208V/3 Ph	240V/1Ph	240V/3 Ph	400 V/3N	415V/3N
S684*	27	127	76	110	66	—	—
SU684**	33	157	97	136	84	60	58
SU684RC2***	34	N/A	100	142	87	60	58
Salamander Broiler****	7	34	23	29	20	4	4

\*(all purpose tubular elements) \*\*(Sealed -top elements, North American Model # SS684) \*\*\* Maximum on any 684 series range.

\*\*\*\*Add when wired to range base (SER/SUER-680)

Exterior Dimensions			Oven Interior Dimensions			Weight
Height	Width	Depth	Height	Width	Depth	Lbs/Kg
47" (1194mm)	60" (1524mm)	31-1/4" (794mm)	13-1/2" (343mm)	26-1/4" (667mm)	22" (559mm)	600/273

## Ratings:

Tubular Elements - Small 6-1/2" (165mm) - 1250 Watts. Large 8-1/2" (216mm) - 2100 Watts

Sealed High Performance Elements - Small 7" (180mm) - 2000 Watts. Large 8-5/8" (220mm) - 2600 Watts

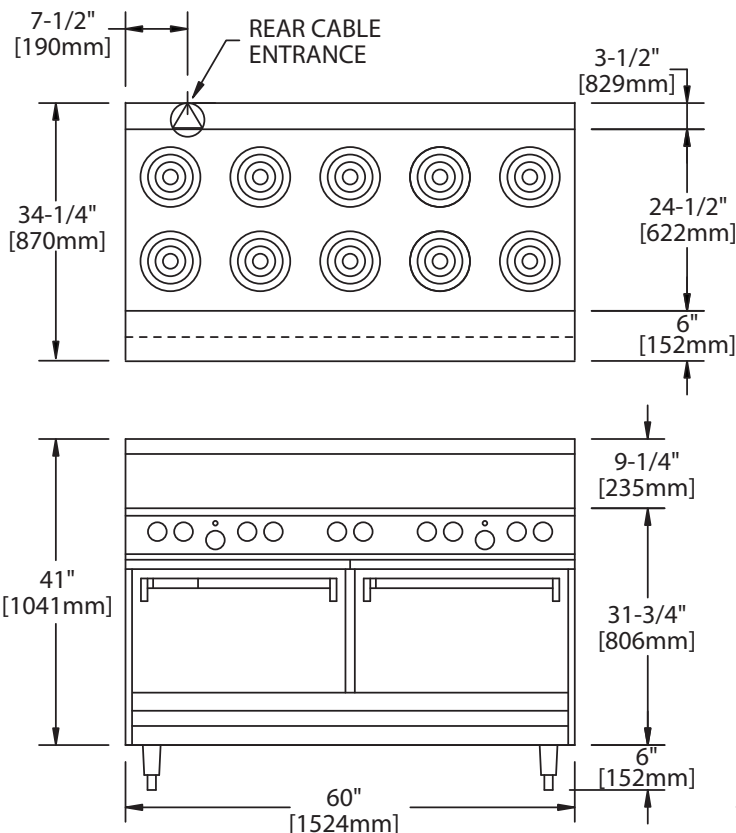
Hot Top (per 12"/305mm section) - Front and Rear sections each 1675 Watts, (3350 Watts total)

Griddle (per 12"/305mm section) - 3350 Watts

Standard Oven - 4.85 kW

Convection Oven - 5.0 kW (plus 0.5kW fan motor, for 5.5kW total)

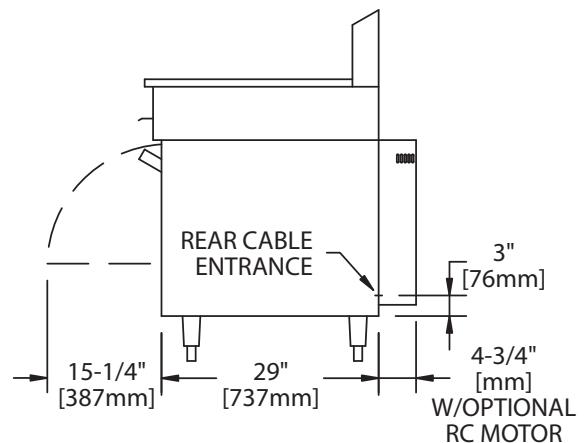
Installation Clearances:	Side	Back
Range w/o Salamander	3" (76mm)	2" (51mm)
Range w/ Salamander	7" (178mm)	2" (51mm)
Hot Sections	10" (254mm)	—



**NOTE:** For ranges with convection oven(s), (models with suffix `RC` or `RC2`), air circulation is required for proper operation of fan motors. These models must not be dais mounted or installed without legs.

**NOTE:** Salamander can not be installed wired from the range base on a S684 in 208/1/60. Salamander must have a separate circuit.

**NOTE:** Many local codes exist, and it is the responsibility of the Owner and the Installer to comply with those codes.



# DIMENSIONS AND SPECIFICATIONS, MODELS S,SU & SS686

Model	Total Kw Load	208V/1Ph	208V/3 Ph	240V/1Ph	240V/3 Ph	400 V/3N	415V/3N
S686*	15	72	48	62	42	—	—
SU686**	19	90	59	78	52	40	38
SU686RC2***	20	93	62	80	54	40	38
Salamander Broiler****	7	34	19	29	16	4	4

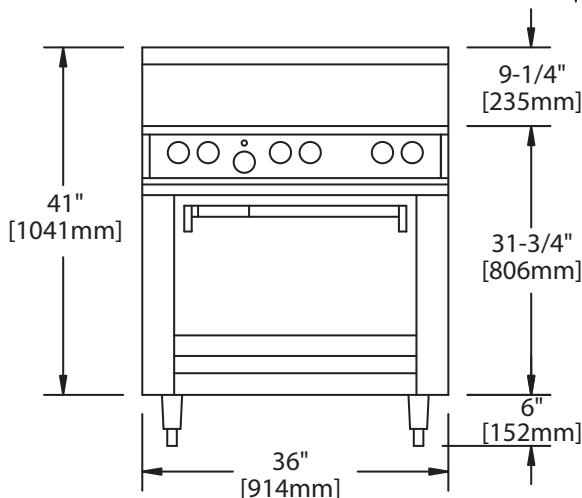
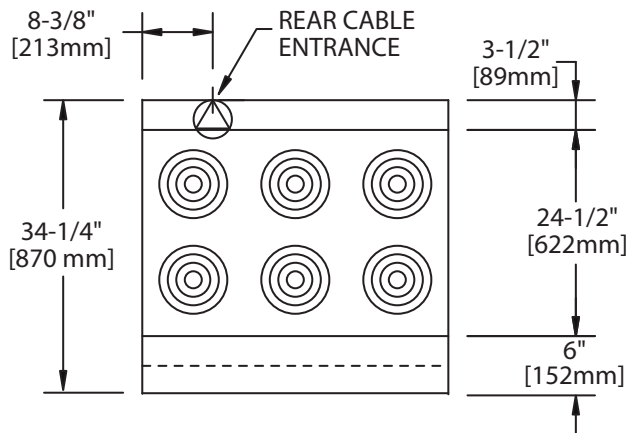
\*(All purpose tubular elements) \*\*(Sealed -top elements, North American Model # SS686) \*\*\* Maximum on any 684 series range.  
\*\*\*\*Add when wired to range base (SER/SUER-680)

Entry Clearances		
Crated	Uncrated	Uncrated "RC" Model
45" (1143mm)	35" (889mm)	40" (1016mm)

Installation Clearances:	Side	Back
Range w/o Salamander	3" (76mm)	2" (51mm)
Range w/ Salamander	7" (178mm)	2" (51mm)
Hot Sections	10" (254mm)	—

Exterior Dimensions			Oven Interior Dimensions			Weight
Height	Width	Depth	Height	Width	Depth	Lbs/ Kg
47" (1194mm)	36" (914mm)	31-1/4" (794mm)	13-1/2" (343mm)	26-1/4" (667mm)	22" (559mm)	360/190

NOTE: Many local codes exist, and it is the responsibility of the Owner and the Installer to comply with those codes.



## Ratings:

**Tubular Elements:** 6-1/2" (165mm): 1250 Watts

8-1/2" (216mm): 2100 Watts

**Sealed High Performance Elements:** 7" (180mm): 2000 Watts

8-5/8" (220mm): 2600 Watts

**Hot Top** (per 12"/305mm section):

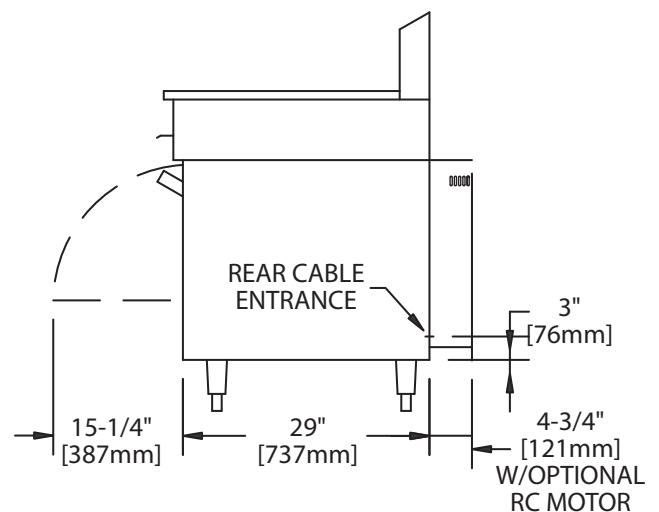
Front and Rear sections each 1675 Watts,  
(3350 Watts total)

**Griddle** (per 12"/305mm section): 3350 Watts

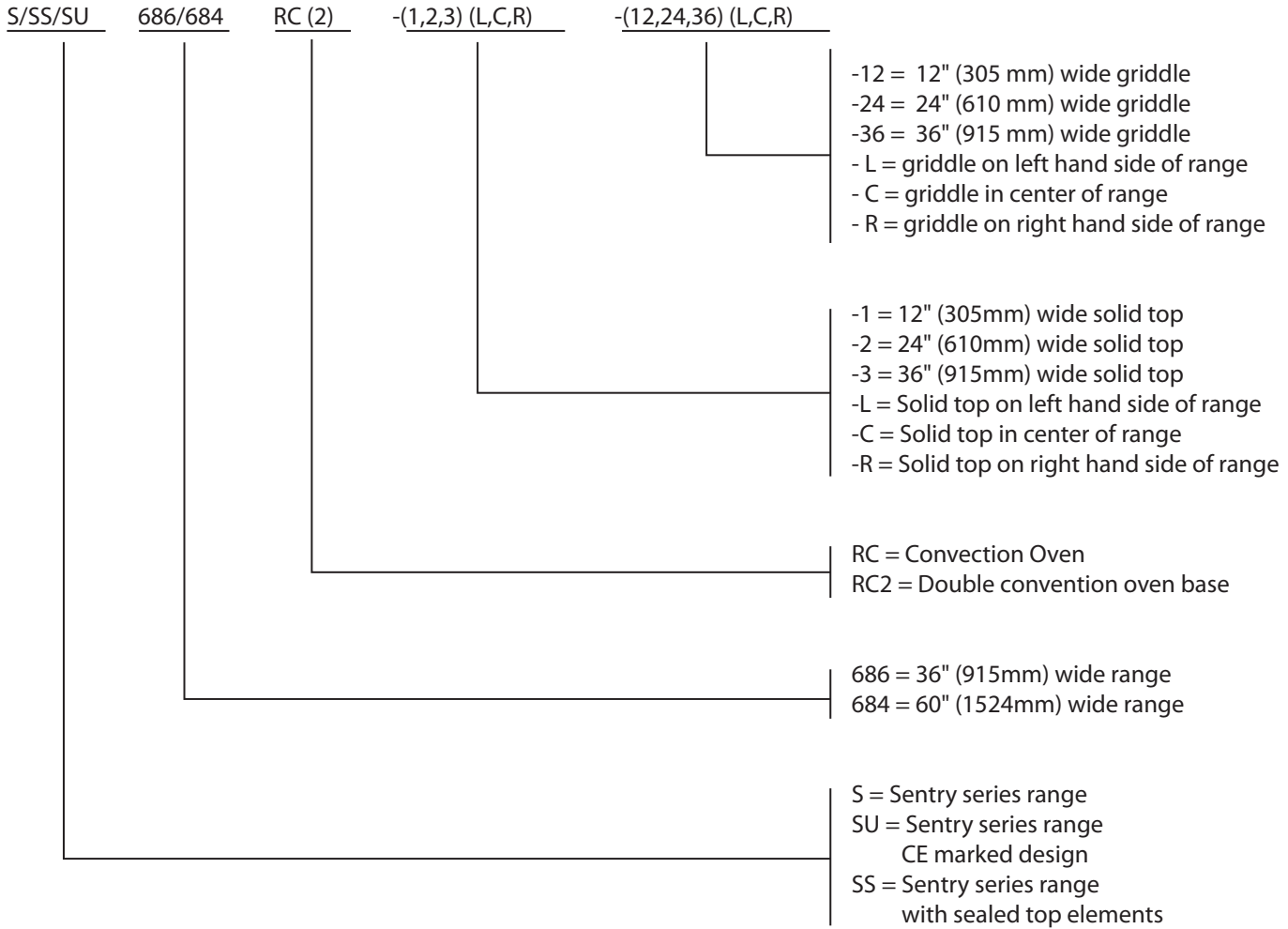
**Standard Oven:** 4.85 kW

**Convection Oven:** 5.0 kW (+0.5kW fan motor; for 5.5kW total)

NOTE: For ranges with convection oven(s), (models with suffix 'RC' or 'RC2'), air circulation is required for proper operation of fan motors. These models must not be dais mounted or installed without legs.



# DIMENSIONS AND SPECIFICATIONS, RANGE MODELS



# DIMENSIONS AND SPECIFICATIONS, MODELS SERC, SER-680

Model	Total Kw Load	TOTAL AMPS					
		208V/1Ph	208V/3 Ph	240V/1Ph	240V/3 Ph	400 V/3N	415V/3N
SERC, SER-680 wired independently	7	34	29	29	25	15	15

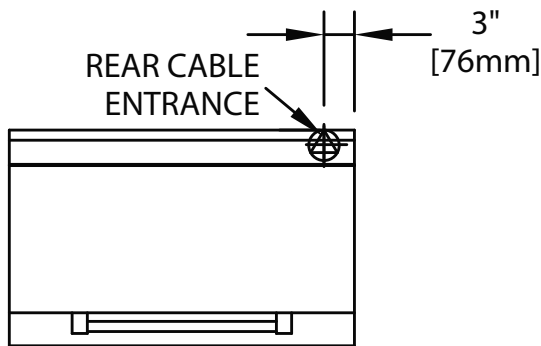
## Installation Notes:

Clearances from combustible surfaces should be minimum 7" (178mm) from sides, 2" (51mm) from back.

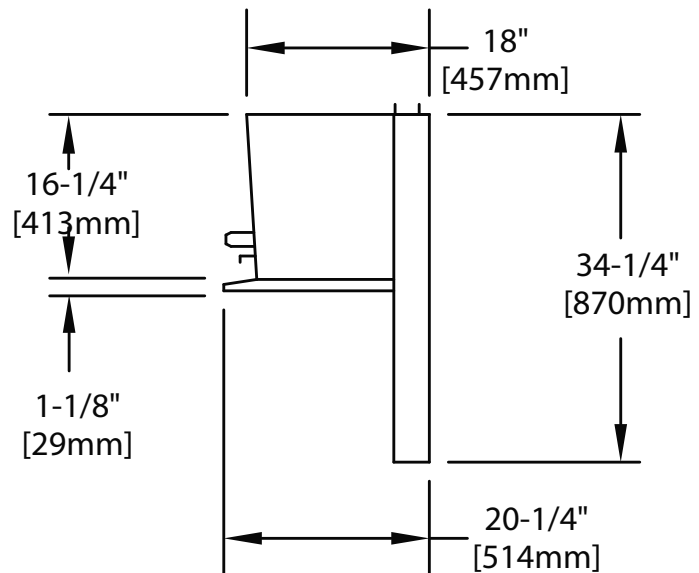
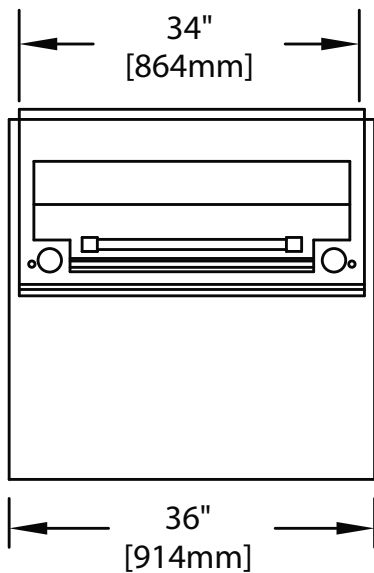
Note: Salamander can not be installed wired from the range base on a S684 in 208/1/60. Salamander must have a separate circuit.

KW Ratings

Total kW loading is 7.0 kW



Model	Weight	
	Pounds	KG
S/SUERC	164	76
S/SUER-680	190	86



# INTRODUCTION

This appliance should be given regular care and maintenance. Periodic inspections by your dealer or a qualified service agency are recommended.

NOTE: Many parts of the equipment are raw steel, i.e., griddle top and solid hot top and can react with moisture forming rust. This is normal and not considered a defect. A light coating of salt free oil may be applied to prevent further rusting.

## Uncrating

1. Check the crate for possible damage sustained during transit. Carefully remove the unit from the crate and again check for damage. Any damage to the appliance must be reported to the carrier immediately.
2. All packing material must be removed from the unit. The protective material covering the stainless steel must be removed immediately, after the unit is installed.
3. All ranges are shipped from the factory with legs or casters fitted unless specially ordered without.
4. The splash back and high shelf is packed and ordered separately.
5. Do not remove permanently affixed labels, warnings or data plates from the appliance, for this may void approvals and create a safety hazard.

## Rating Plate

The data plate is readily accessible, located behind the lower panel on ranges & behind the drip tray on salamanders. It contains all the pertinent information required by the installer.

When corresponding with the factory or your local authorized factory service center regarding service problems or replacement parts, be sure to refer to the particular unit by the correct model number (including the prefix and suffix letters and numbers) and the warranty serial number. The rating plate affixed to the unit contains this information.

## Safety Precautions

This manual pertains to ranges and salamanders. The reader/operator must interpret its contents to applicable needs. If there is any question of interpretation of any of the literature pertaining to Garland ranges or salamanders, please contact your authorized service agency, or our customer service department at the phone number listed on the front of this manual or on our web site: <http://www.garland-group.com>.

A qualified person must make the installation of these products in accordance with the local codes of the country of destination.

Always follow these safety precautions when operating the range or salamander.

1. The Unit must only be operated by qualified persons. DO NOT operate without reading this manual.
2. DO NOT operate the product unless it has been properly installed and grounded.
3. DO NOT operate the product unless all service and access panels are in place and fastened properly.
4. DO NOT attempt to repair or replace any part of this product unless all main power supplies have been disconnected.

WARNING: to avoid personal injury: Use Extreme caution in setting up, operating and cleaning the product to avoid coming in contact with the hot grill surfaces or hot grease. Suitable protective clothing should be worn to prevent the risk of burns.

NOTE Other Safety precautions are noted throughout this manual, when applicable for specific operations.



# INSTALLATION

This equipment must be installed by a competent factory trained, certified, licensed and / or authorized service or installation person. Electrical work must be installed by a qualified person as required by the local electrical authorities.

**WARNING:** This appliance must be grounded.

**CAUTION:** Prior to installation check the electrical supply to ensure the input voltage and phase match the equipment voltage rating and phase as shown on the rating plate.

## Clearances

The space in which the appliance is to be positioned must include the minimum installation clearances to combustible surfaces.

MINIMUM INSTALLATION CLEARANCES			
Clearance To Combustible Material			
Location	Models		
	Ranges	Ranges c/w Hot Top	Salamander
Top	*	*	*
Sides	3" (76mm)	10" (254mm)	7" (178mm)
Rear	2" (51mm)	2" (51mm)	2" (51mm)

\* NOTE: Garland recommends equipment be installed under a ventilation canopy

LOCATION	
Models	Type Of Floor Or Base
Ranges	Combustible
Ranges c/w Hot Top	Combustible
Salamander	Non-Combustible

**IMPORTANT:** For ranges with convention oven (models with suffix "RC"), air circulation is required for proper operation of the fan motors. Allow 1" (25mm) rear clearance for ventilation of the motor.

Adequate clearance must be provided for servicing, ventilation and proper operation. The range must be kept clear of combustible material.

## Positioning

The range should be installed on a firm, smooth and level floor designed to withstand the weight of the fully laden appliance.

Place the range or salamander in desired position and level from side to side and back to front and diagonally. This leveling must be done with the unit under the hood and in it's normal operating position. If the range is to be dais or cove mounted, the base on which it is to be set should be level. If it is not, the range must be shimmed to level.

## Legs

All ranges are shipped from the factory with legs installed unless otherwise specified. When the range is specified for dais or cove base mounting, it is shipped less legs. Legs must be adjusted to a minimum height of 6" (152mm) in order to comply with NSF standards.

## Casters

1. The front casters on the unit are equipped with brakes to limit the movement of the range without depending on the electrical connection to limit appliance movement.
2. A restraint can be attached to the unit near the electric connection. If the restraint is disconnected, be sure to reconnect it after the range has been returned to its originally installed position.

## Ventilation Air

The area in which the appliance is installed must be adequately ventilated to provide air for removal of steam, heat generated by the appliance, etc. These products are recommended to be installed under a ventilation hood.

Proper operation of exhaust fans (proper speed, rotation and adjustment) is essential. The hood, and the filters must be cleaned on a regular bases and kept grease free.

## Installation Of Range Mount Salamander

1. The rear of the range must be easily accessible.
2. Place the salamander in position on the range. Slide the uprights into the opening at the oven rear. Secure the salamander uprights to the range with the hex head bolts provided.
3. Remove the terminal block access cover
4. Pass the wires though cable entrance hole.
5. Secure the cable connector
6. Terminate the salamander wire at the terminal block provided (Red to L1, Black to L2 or N, Green to GRN or E).

# INSTALLATION Continued

NOTE: When mounting a salamander over an existing range in the field, an independent fused connection must be made through the knock out plate provided in the main back of the salamander.

## Assembly of Backguard/High Shelf

The back guard or high shelf will have been shipped separately. To install, put the backguard/high shelf on the rear of the range, slipping the uprights into the opening on each burner box side. Fasten the upright to the burner box side with four hex fasteners provided.

## Code Requirements

The Garland S/SS680 series complies with the standards CSA C22.2 no.109 – latest edition, the UL197 – latest edition and the NSF#4 – latest edition. The installation and connection of this appliance must comply with current codes. In Canada – The Canadian Electrical Code Part 1 and in the USA – The National Electrical Code.

The Garland SU680 series complies with the essential requirements of the Directives 73/23/EEC, 89/336/EEC, 89/392/EEC, 93/68/EEC and the standards, EN60335, IEC801.2, IEC801.3, IEC801.4, IEC801.5, IEC801.6 and IEC801.11.

## Electrical Supply

Before attempting the electrical connection, the rating plate should be checked to ensure that the equipment's electrical characteristics and supply electrical characteristics agree. On ranges and salamanders the supply entrance is located at the rear or alternatively on the main bottom. The supply terminal block is accessible from the front. The electrical supply must be adequate for the voltage, phase, and current marked on the rating plate.

NOTE: A means of disconnection from the supply having a contact separation of at least 3 mm in all poles must be incorporated in the fixed wiring.

This equipment is intended to be installed with fixed permanent wiring.

WARNING: This appliance must be grounded.

## Single And Three Phase Connection

Unless otherwise noted, all ranges are shipped from the factory for three phase connection. Salamanders are shipped from the factory for single phase connection. A wiring diagram is attached to the rear of each appliance. Visually check all electrical connections. The range is wired at the factory as specified on the order. If it is necessary to change the phasing refer to the wiring diagram.

## Commissioning

Ensure all circuit breakers located in the lower compartment are set to the ON (1) position

1. Ensure that all controls are in the OFF position and turn on the main electrical supply.
2. Operate each section of the range or salamander in accordance with the instructions given in the Operating Instructions.
3. Check that the product functions correctly and that the voltage supply to the unit does not drop more than 5% when all sections are operated simultaneously.

# INITIAL OPERATION

## Preparing a New Griddle

1. Remove the protective coating on the surface using mild detergent.
2. Thoroughly rinse the griddle with vinegar and a water solution (3/4-cup vinegar per quart of water) and dry.

## Seasoning of the Griddle

1. Using a clean cloth, rub a thin and even layer of oil into the griddle surface. Oil should be unsalted shortening or high temperature cooking oil.

2. Set the griddle thermostat to 130°F (55°C) and heat griddle surface until the oil begins to caramelize (turn a golden brown color). Once this occurs, turn the thermostat to OFF "●".
3. Scrape off the caramelized oil with a standard spatula.
4. Repeat step 1, and set the griddle thermostat to 275°F (135°C).
5. Repeat steps 2 & 3. The griddle is now seasoned and ready for use.

# OPERATING INSTRUCTIONS

## Operation of the Griddle:

The griddle must be seasoned before initial operation.

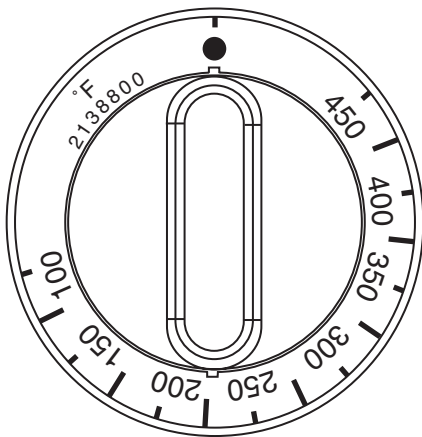
NOTE: Ensure the electrical supply to the appliance is turned on.

1. Set the thermostat to the desired temperature.

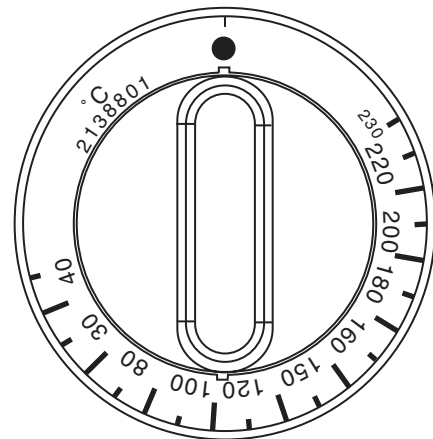
### Shutting the griddle down:

1. Set the thermostat to the OFF (●) position.

### Griddle Operating Control Fahrenheit



### Griddle Operating Control Centigrade



## Operating The Solid Hot Top

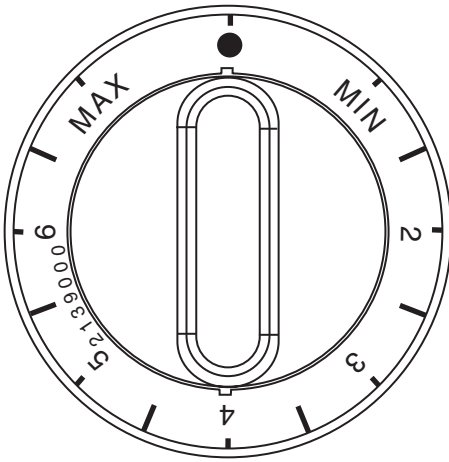
1. Set the control dial to the desired position from MIN - 2,3,4,5,6, - MAX.
2. The recommended pre-heat time is 30 minutes.

### Shutting The Solid Hot Top Down

1. Set the control dial to the OFF (●) Position.

# OPERATING INSTRUCTIONS Continued

## Solid Top/Open Top (Tubular) Operating Controls



## Operating The Sealed Hotplate (SS/SU) Models

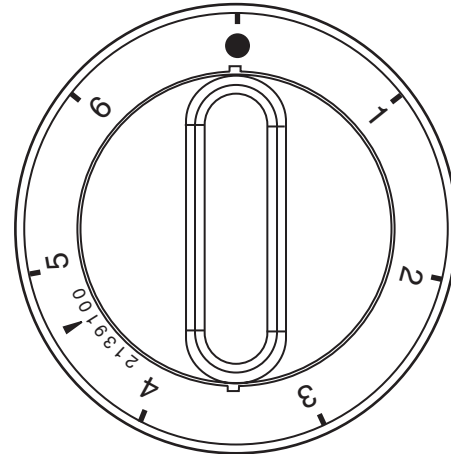
1. Before using sealed hotplates for the first time they should be heated at setting 3 for five (5) minutes. This will harden and burn off the protective coating.
2. Set the six heat switch dial to the desired position for 1 to 6.
3. Do not preheat.

SEALED HOT PLATE WATTAGES AND APPLICATIONS			
Application	Dial Setting	8 2/3" (220mm)	7" (180mm)
Broiling, Frying, Braising	6	2600 W	2000 W
	5	1750 W	1400 W
	4	1300 W	950 W
Simmering	3	450 W	450 W
	2	340 W	305 W
Warming	1	240 W	200 W

## Shutting Down The Sealed Hot Plate:

1. Set dial to the OFF (●) position

## Sealed Hot Plate Operating Controls



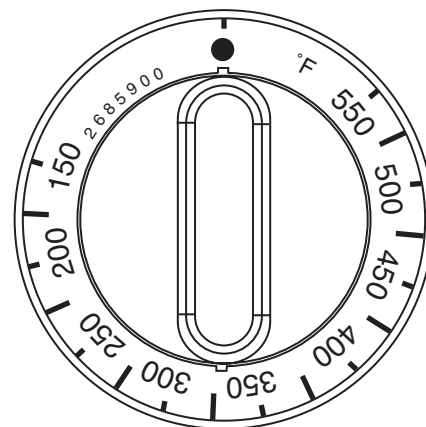
## Operation Of Standard Ovens

1. Set dial to desired temperature, preheat for at least 45 minutes after turning on the oven from cold.

## Shutting down oven:

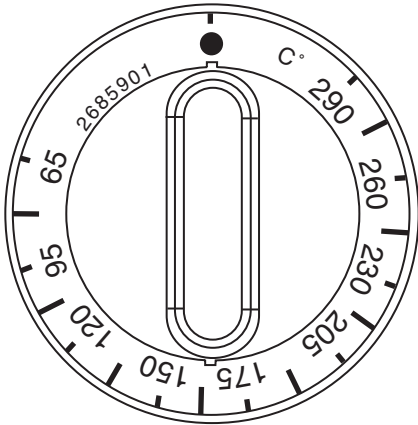
1. Set the dial to the OFF (●) Position.

## Oven Operating Controls Fahrenheit



# OPERATING INSTRUCTIONS Continued

## Oven Operating Controls Centigrade



## Operation of the Convection Ovens

### Starting the Oven:

1. Set the cook/cook switch to the "Heat" position.
2. Set Thermostat to the desired temperature.
3. Preheat the oven thoroughly before use (at least 30 minutes).

### Shutting down:

1. Set the thermostat dial to the OFF (●) position.
2. Open door.
3. Activate power to the cool down.

The motor on your range convection oven is maintenance free since it is constructed with self-lubricating sealed ball bearings. It is designed to provide durable service when treated with ordinary care. We have a few suggestions to follow on the care of your motor.

- A. When the motor is operating, it cools itself internally by air entering the rear of the motor case, provided proper clearance has been allowed.

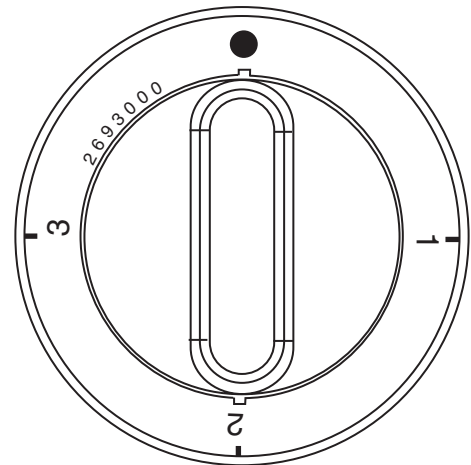
- B. Since the blower wheel is in the oven cavity it is at the same temperature as the oven. If the motor is stopped while the oven is hot, the heat from the blower wheel is conducted down the shaft and into the armature of the motor. This action could shorten the motor life.
- C. We recommend, at the end of the bake or roasting period or before shutting down completely, that the doors be left open. Set the fan switch to the "COOL DOWN" position. The fan should run for at least 20 minutes. The "FAN" should never be turned "OFF" when the oven is "HOT".

## Operation of the Salamander

1. Set the three heat switch to the desired position from – 1 (MIN), 2, 3 (MAX).
2. Allow the salamander to preheat before adding product

### Shutting the salamander down

1. Set the three heat switch to the OFF (●) position.
2. Turn the switches to the off position when the unit is not in use.



# PRODUCT APPLICATION

The top of the range is designed for flexibility and the preparation of numerous types of products.

## Griddles

Griddle tops are designed to have food cooked directly on the surface. Do not put pots or pans on the griddle surface as this will scratch or nick the surface and will result in improper cooking or sticking of the product. Never salt food over the griddle since this will build up gummy residue making it difficult to clean.

Avoid hitting the surface of the griddle with the edge of a spatula, since this will cause nicks. The most frequently used temperatures are 300° F to 350° F (149° C to 177° C). After one firing, the griddle plate will discolor. This is normal and will not affect cooking performance.

## Solid Hot Tops

Recommended where long term stock pot cooking is required for soups, sauces, or stocks. Pots can be placed anywhere on the hot top. The maximum recommended stock pot size is 12" (305mm) diameter.

The recommended pre-heat time is 30 minutes. This will thoroughly saturate the plate. Pots must have flat bottoms for maximum contact with the hot surface. Roasting pans with straps should never be used on a hot top since only the straps touch the surface and heat transfer will be minimal.

Preparation of soups, stocks, or sauces are done on the hot top where slow even cooking is desirable. Heating larger quantities of food can be done more efficiently than heating small quantities. Pots and pans should be covered whenever possible to reduce the energy consumption.

High acid sauces, such as tomato should be cooked in stainless steel vessels rather than aluminum since stainless steel will not react chemically. Light colored sauces may be discolored by the aluminum especially if stirred with a metal spoon. Salty water may pit aluminum if used frequently.

## Sealed Hotplate (SS/SU Models)

All-purpose sealed top elements provide an easy-clean top. They are intended for broiling, sauté, and other range top cooking.

Operation practices are very important for efficient use of these elements:

1. Pot bottoms must be flat. This increases the heat transfer to the pot. Do not use pots with convex bottoms or concave bottoms with more than 1/32" (1mm) concave.
2. Use pots with the same diameter as the element where possible. This will reduce heat up time.
3. Do not preheat the element. Elements are protected with a high limit, which will automatically reduce the element to a lower power. It will increase heatup time if this occurs.
4. Use a lid on pots when boiling water.

## Standard Ovens

The temperature is automatically controlled by the thermostat so satisfactory cooking can be repeated. For best performance the following instructions should be followed:

Grid shelves: There are three shelf positions. The shelf position is governed by the size of the product cooked. Always push the shelf back into the oven until it pops making contact with the rear of the oven.

Tray size: A cake tray may be used on each shelf. Single trays or dishes must not be allowed to overhang the shelf in any direction, since this will adversely affect the heat circulation.

Loading: Allow at least 45 minutes after turning the oven on from cold, with the thermostat at the desired temperature before loading the oven. Put the food in quickly and close the oven door.

## RC Convection Ovens

The forced air range oven improves heating efficiencies by circulating the heated air within the cooking chamber. This reduces the temperature rise time and baking time. The oven elements are interlocked with the door. When the fan switch is in the heat position the elements will only operate when the door is closed. When the fan switch is in the cool position the fan will only operate when the door is open.

Operating suggestions for convection ovens:

1. As a general guide, set the oven temperature 25-50° F (10-20° C) lower than temperature used in standard ovens.
2. Cooking times may be 2% to 3% less.

## PRODUCT APPLICATION Continued

3. Keep a close check on any product being prepared for the first time. The size of the load, temperature of the product going in, and moisture content are major factors that influence necessary cook times and temperatures.
4. Record successful times and temperatures for future reference.
5. Preheat the oven thoroughly before use (at least 30 minutes).
6. Allow air circulation around the product. Center pans on oven racks.
7. Never place pans directly on the oven bottom.
8. Do not use a deep pan for shallow cakes, cookies, etc. as heat circulation across the top of these items is essential for browning.
9. When rethermalizing frozen products, preheat oven to 50° F (10°C) higher than the cooking temperature to compensate for heat loss before and after loading. Return thermostat to the cooking temperature after loading.

## MAINTENANCE AND CLEANING

### General

Grease the door hinges and check for loose fasteners. Tighten as necessary.

### Cleaning

**WARNING:** this appliance must not be cleaned with a water jet.

### Stainless Steel

Stainless steel should be cleaned using mild detergent, a soft cloth and hot water. If it is necessary to use a non-metallic scouring pad, always rub in the direction of the grain in the metal to prevent scratching. Wash a small area at a time and rinse the washed area with a clean sponge dipped into a disinfectant and wipe dry with a clean soft cloth before it can dry.

Use only stainless steel, wood, or plastic tools to scrape off heavy deposits of grease or oil. Do not use ordinary steel scrapers or knives as particles of iron may become imbedded and rust. **NEVER USE STEEL WOOL.**

### Enameled Surfaces

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. Stubborn residue spots may be removed with a scouring pad. Dry thoroughly with a clean cloth.

### Salamander

1. Clean the salamander racks as soon as possible after cooking with tomato or vinegar based products, which have a high acid content. These foods can cause pitting of the rack surface.
2. Drain and clean drip tray frequently. Excessive oil drain off can cause spillover.

### Ovens

Clean the oven racks and guides with hot soapy water and dry thoroughly. Clean the oven interior with oven cleaner following instructions.



# MAINTENANCE AND CLEANING Continued

## Griddles

### After Each Use

1. Using a traditional 2 1/2" – 3" (64mm –76mm) scraper or spatula, scrape the griddle surface (to remove food particles and oil residues) towards the grease trough using even front to back strokes. Deposit debris into the chute.
2. Pour shortening or oil onto the griddle surface using straight front to back motion. Clean the griddle using a griddle stone or grill screen. Always wipe with the grain of the steel, never sideways.
3. Using a clean cloth, rub a thin and even layer of oil into the griddle surface.
4. Remove the grease drawer, empty and wash thoroughly with soap and water. Replace.

### For Heavy Build Up

NOTE: After using cleaners and grease cutters, re-season the griddle.

Apply to a warm griddle for best results.

1. Using a traditional 2 1/2" – 3" (64mm –76mm) scraper or spatula scrape the griddle surface (to remove food particles and oil residues) towards the grease trough using even front to back strokes. Deposit debris into the chute.
2. Apply griddle cleaner evenly over the griddle surface and let sit as directed. Follow the procedures on the label of the specific cleaning product.
3. Using a traditional scraper or spatula, sash around the griddle cleaner to remove the build up.
4. Scrape the griddle surface towards the grease trough using even back to front strokes. Repeat step 2 if necessary.
5. Using mild detergent, clean the surface and rinse thoroughly with water and vinegar solution. Dry griddle.
6. Using a clean cloth rub a thin and even layer of oil into the griddle surface.
7. Re-season the griddle as detailed in initial cleaning. The griddle is now ready for use.

## Griddle Do's & Don'ts

### Do's

1. Season the griddle. This will prevent food from sticking and make it easier to keep the surface clean.
2. Keep the surface clean. Scraping the surface thorough out production to clear foods and oils prevents build up and will make it easier to keep the surface clean.
3. Turn the temperature down during slow periods. Reducing the temperature or turning sections off during slow times will conserve energy and prevent the plate from overheating.

### Don'ts

1. Do not use salt to clean the griddle surface, Salt is corrosive and can cause pitting of the griddle.
2. Do not allow metal utensils (Spatula, scraper, etc.) to nick and/or dent the surface of the griddle. The edges of these utensils are sharp and will create divots that oil can collect and caramelize with will cause sticking.
3. Do not use the griddle as a hot top. A large pan or pot will trap heat and can cause the griddle plate to warp.
4. Do not over heat the griddle to preheat faster. Preheating only takes 15-20 minutes.

## Thermostat Calibration

**WARNING: Turn off the electrical mains before commencing any service work.**

### Oven

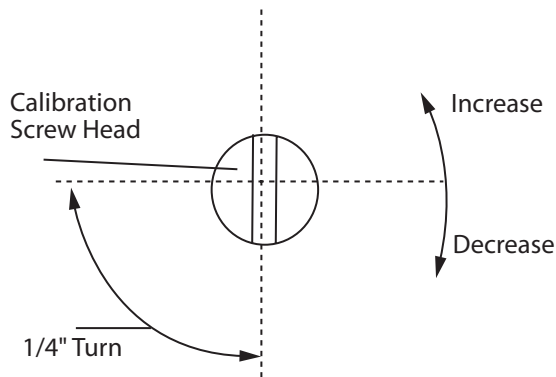
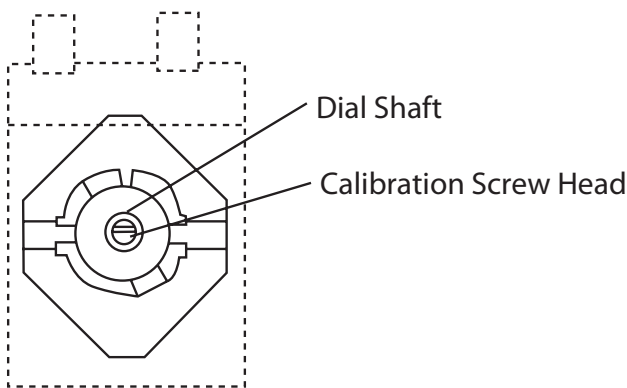
It is normal for an electromechanical thermostat to cycle with a 45°F - 50° F (25°C - 28°C) range when checking calibration allow the thermostat to cycle a minimum of two times.

1. Place the thermocouple of the test instrument in the center of the oven.
2. Turn the oven temperature control dial to 400° F (205° C). In order to allow the oven temperature to stabilize, the oven control must be allowed to cycle twice before taking a test reading.
3. Check the temperature reading just when the control cycles "OFF" as indicated by the cycling pilot lamp. If the temperature does not read with in 15° F (8°C) of the dial setting, recalibrate as follows:



# MAINTENANCE AND CLEANING Continued

- Carefully remove the thermostat dial, not disturbing the dial setting.
- Hold the thermostat shaft steady with a small flat blade screw driver. Turn the calibration screw located inside the shaft clockwise to decrease the temperature and counter clockwise to increase the temperature. NOTE: each  $\frac{1}{4}$  turn of the screw will create a change of approximately  $35^{\circ}\text{F}$  ( $20^{\circ}\text{C}$ ).
- Replace the thermostat dial and repeat steps 1 through 3 to verify that the correct adjustment has been made.



## Griddle

- Use a test instrument with a special disc type thermocouple or a reliable surface type pyrometer. NOTE: a drop of oil on the face of the disc will provide better contact with the plate.
- Set all griddle thermostats to  $350^{\circ}\text{F}$  ( $177^{\circ}\text{C}$ ). In order to allow the griddle temperature to stabilize, the thermostats must be allowed to cycle twice before taking a test reading.
- Check the griddle temperature when the thermostat just cycles "OFF" by placing the thermocouple firmly on the griddle directly about the sensing bulb of the thermostat. The reading should be between  $335^{\circ}\text{F}$  ( $168^{\circ}\text{C}$ ) and  $365^{\circ}\text{F}$  ( $185^{\circ}\text{C}$ ). If the reading is outside of these limits, calibrate as follows:
- Carefully remove the dial, not disturbing the shaft position.
- Hold the shaft steady and with a small flat screw driver turn the calibration screw located inside the shaft clockwise to decrease temperature and counter clockwise to increase temperature. NOTE: Each  $\frac{1}{4}$  turn of the screw will create a change of approximately  $35^{\circ}\text{F}$  ( $20^{\circ}\text{C}$ ).
- Replace the thermostat dial and repeat steps 1 through 3 to verify that a correct adjustment has been made.

# SAFETY

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It is essential that the instructions in this booklet are strictly followed for the safe and economical operation of the equipment. If it is known or suspected that a fault exists on the appliance then it must not be used until the fault has been rectified by a competent person.



 **Garland**<sup>®</sup>