INSTALLATION AND OPERATION MANUAL

GARLAND INDUCTION SINGLE / DUAL COUNTERTOP GRIDDLES

with RTCSmp TECHNOLOGY
Real-time **T**emperature **C**ontrol **S**ystem
multi-**p**oint sensing



SHGR3500
SHGR5000



SHDUGR7000
SHDUGR10000

(208V model shown with stainless steel legs)

INNOVATION LEADER R·T·C·S mp realtime temperature control system

CE models comply with the latest European Norms:
EN 60335-1, EN 60335-2-36, EN 62233 (EMC/EMV)

North American models: ETL listed in compliance with UL 197, CSA C22.2 No.109, NSF-4
Complies with FCC part 18, ICES-001

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.

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

Users are cautioned that maintenance and repairs must be performed by a Garland authorized service agent using only 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 and/or installation instructions provided with the product or any product that has its serial number defaced, obliterated or removed, and/or which has been modified or repaired using unauthorized parts or by unauthorized service agents. For a list of authorized service agents and/or genuine replacement parts, please visit our website at www.garland-group.com for USA and Canada. For international customers, please visit www.manitowocfoodservice.com. The information contained herein, including design and part specifications, may be superseded and is subject to change without notice.



Visit our **Video Gallery** at
www.Garland-Group.com

Manitowoc

Part # 4532292 Rev 3 (01/14/14)

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WARRANTY

Our warranty statements for induction products are available on-line. Please visit our website at www.garland-group.com/minisite/service to download the latest revision. If you might have any questions, please contact Garland.

USING THIS MANUAL

This manual contains important information regarding safety, installation, operation, maintenance, and troubleshooting. They must be read entirely and carefully by the installers and operators before the equipment is installed and taken into operation. This manual must always be available for reference at the place of operation.

Throughout this manual, the induction unit type "RTCSmp Griddle-Line" is referred to as "induction unit".

DESCRIPTION OF WARNING SYMBOLS

	This symbol alerts you to a hazardous situation that WILL or COULD cause serious bodily harm or death. Be alert and implement relevant safety precautions.
	This dangerous voltage warning symbol indicates a risk of electric shock and hazards from dangerous voltage.
CAUTION	This symbol alerts a hazardous situation, which if not avoided, COULD cause minor to moderate personal injury or property damage. The relevant safety precautions MUST be implemented at all times.
	Electromagnetic field.
 **Warning** **Risk of fire or electric shock** **Do not open**  To reduce the risk of fire or electric shock, do not remove or open cover. No user serviceable parts inside. Refer servicing to qualified personnel.	

CONTACTS

Garland Commercial Ranges Ltd.
1177 Kamato Road, Mississauga, Ontario, Canada. L4W 1X4
T: 1-905-624-0260 | F: 1-905-624-5669 | www.garland-group.com

USA Sales, Parts and Service	1-800-424-2411
Canadian Sales	1-888-442-7526
Canada or USA Parts/Service	1-800-427-6668
International Sales and Service	www.ManitowocFoodservice.com

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1 Safety Requirements

WARNING This product contains chemicals known to the State of California to cause cancer. 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.

IMPORTANT Warning labels mounted directly on the induction unit must be observed at all times and kept in a fully legible condition.

IMPORTANT To ensure your working environment is safe, you must follow all of the safety instructions contained in this manual, the existing national regulations for accident prevention with electrical systems, as well as any relevant company-specific safety instructions.



The induction unit should only be used if and only if the installation of the electrical system is fitted by an approved installation contractor in accordance with specific national and local regulations.

1.1 Risk Involved By Disregarding Safety Information

Disregarding the safety instructions may cause harm to people, the surroundings, and the induction unit. Garland is not responsible for any damages or personal injury caused by failure to observe the safety requirements. Risks involved when disregarding safety precautions may include:

- Death or injury caused by electric shock.
- Injury due to burns from contacting overheated cooking surface, housing, or oil and grease.

1.2 Safety Instructions for Operator

Please follow the following rules to avoid personal injuries and property damages:

- The griddle plate and the housing are hot when the unit is in use. To avoid burn injuries, do not touch them when using the induction unit.
- A dirty air filter blocks the fresh air inlet. The Air Inlet Filter should be cleaned at least once a week (dish-washer safe) or as often as necessary. Wipe the filter dry before putting it back into the unit.
- Ensure no liquid can enter into the induction unit. Do not let water or food overflow the cooking area. Do not use hoses to clean or power wash the induction unit or its vicinity.
- Persons with a cardiac pacemaker should consult their doctor whether they are safe near an induction unit.
- If the power cord is damaged, have it replaced immediately by an approved service technician.
- The induction unit must only be used for cooking. Do no put any object other than food on the cooking surface.
    - Never heat cookware on the griddle plate as this could damage the griddle plate.
    - Do not leave any object such as paper, cardboard, or cloth on the griddle plate as this might start a fire.
    - Do not place credit cards, phone cards, tapes, or any objects sensitive to magnetism on the induction unit.

  - Metallic objects are heated up very quickly when placed on the induction unit when it is in use. Do not place any objects such as closed cans, aluminum foil, cutlery, jewelry, or watches on the induction unit.
  - Do not place any vessels made of aluminum or plastics on the cooking surface.
- The induction unit has an internal air-cooling system. Do not block the air intake and exhaust openings with objects such as cleaning cloths or containers. Any obstruction to the air intake and exhaust could cause the unit to overheat and to switch off.
- Protect the induction unit from steam if the unit is placed next to high steam emitting equipment such as pasta cookers, steamers, and water bath.
- Do not place the induction unit next to a heat producing unit such as an oven or a deep fryer.

1.3 Improper Use of the Equipment

The reliability of the induction unit can only be guaranteed when it is used properly. The induction unit must always be operated within the limits provided in the technical specifications. Please refer to section ***9 Important Rules*** of using induction equipment.

1.4 Unauthorized Modification and Use of Spare Parts

Please contact Garland if you intend to make any changes on the induction unit. For safety reasons, always use genuine parts and accessories approved by Garland. Any unauthorized modification as well as any installation of unapproved components will void all warranty.

2 Components and Features

2.1 Application

The unique and patented RTCSmp Griddle-Line Single and Dual Griddles are specially engineered for cooking a large variety of food throughout the day. These compact griddles offer numerous great features including fast heat up time, uniform heat distribution, and precise temperature monitoring across the entire cooking surface. To guarantee the induction units' reliability and performance, please observe all safety, installation, and operation requirements mentioned in this manual.

2.2 Components Included

- One RTCSmp countertop single or dual griddle, with 6' (1829mm) cord and plug and removable, dishwasher-safe air intake filter (part# 71000012, 280 x 200 x 12mm)
- Accessories included: one scrubbing pad (part# 72205012), one griddle spatula (part# 72205013), one griddle plate splash guard (part# 72400040 for SHGR; 72400050 for SHDUGR)
- Installation and Operation Manual

2.3 Features

Built with a robust construction, the RTCSmp Induction Griddles are compact and powerful with a revolutionary RTCSmp-Technology (Realtime Temperature Control System with Multi-Point sensing). The RTCSmp Technology monitors the energy supply, the state of the induction coil, power board, CPU, and the cooking zone in realtime. Please review the following features this induction unit offers:

- Instant energy transmission from inverter coil to griddle plate surface for fast startup:
    - Single Griddles: heat up time, from 68° - 392°F (20° - 200°C): approx. 4 ½ minutes for the 3500W models; 3 minutes for the 5000W models.
    - Dual Griddles: heat up time, from 68° - 450°F (20° - 230°C): approx. 5 minutes for the 7000W models; 3 minutes for the 10000W models.
- Equal heat distribution from corner to corner, with consistent results across the entire cooking surface. Surface is controlled and monitored with multiple sensors, resulting in instantaneous recovery.
- Durable griddle plate surface with a polished HPCR-INOX coating, which is resistant to abrasion, chemical, corrosion, and heat.
- Removable: stainless steel griddle plate splash guard, deep grease trough, and dishwasher-safe air filter.
- Integral cooling fan keeps electronics cool, discharging exhaust air from rear with protective air deflectors preventing hot exhaust to be pulled back into unit.
- Simple to operate. Adjust the temperature setting simply by turning the knob. The temperature value is shown via the digital display on the front panel.
- Stainless steel housing; durable and ease of cleaning.

3 Dimensions and Technical Specifications

3.1 Rating Plate

The rating plate contains important information such as model number, serial number, and electrical specifications. The rating plate is affixed to the back of the unit, at the lower right corner.



3.2 Nomenclature and Models

Series	Dual Hobs/ Specialty	Function	Power (Watt)	Models
SH = Slim Hob		**GR** = Griddle Line	**3500** **5000**	**SHGR3500** **SHGR5000**
	DU = Dual	**GR** = Griddle Line	**7000** **10000**	**SHDUGR7000** **SHDUGR10000**

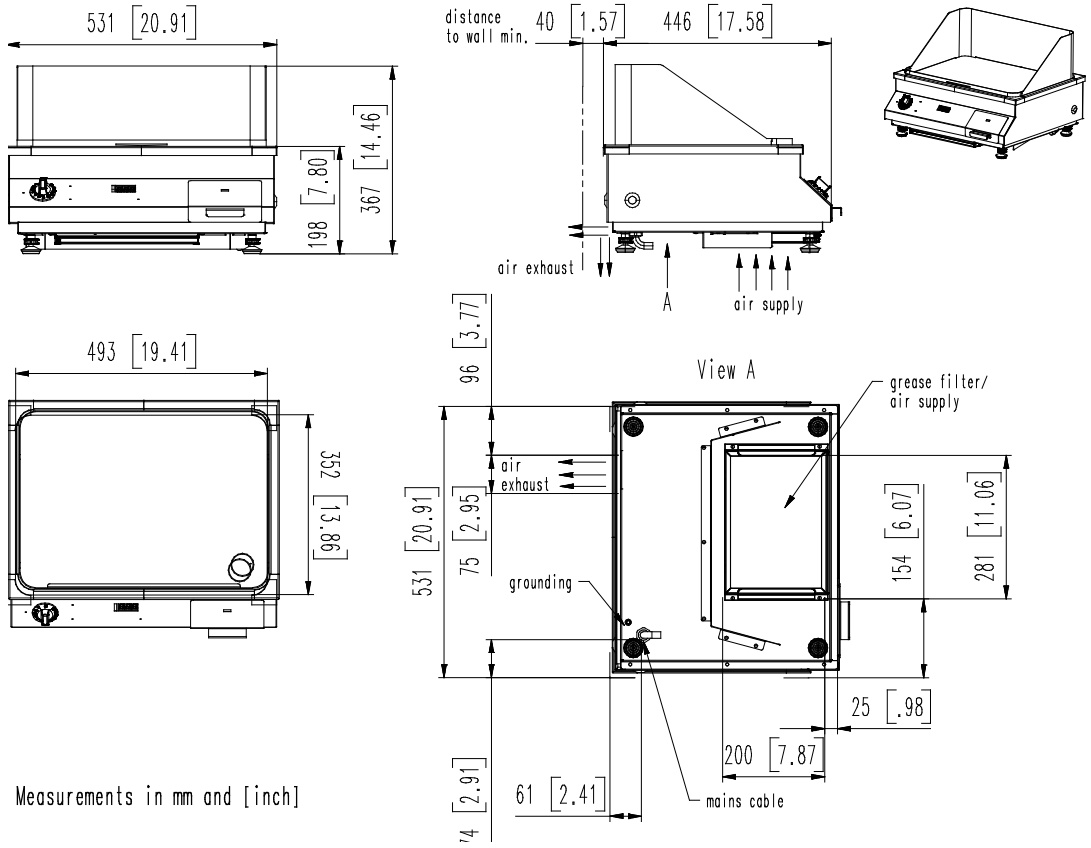
3.3 Weights

Model	Voltage (V)	Shipping Weight	Net Weight
SHGR3500	208/230/240	26kg / 57.3lb	24kg / 52.9lb
SHGR5000	208/400	26kg / 57.3lb	25kg / 55.1lb
SHDUGR7000 /10000 (with SS legs, NSF Compliant)	208	88kg / 194.0lb	50kg / 110.2lb
SHDUGR7000 /10000	400/440	86kg / 189.6lb	48kg / 105.8lb

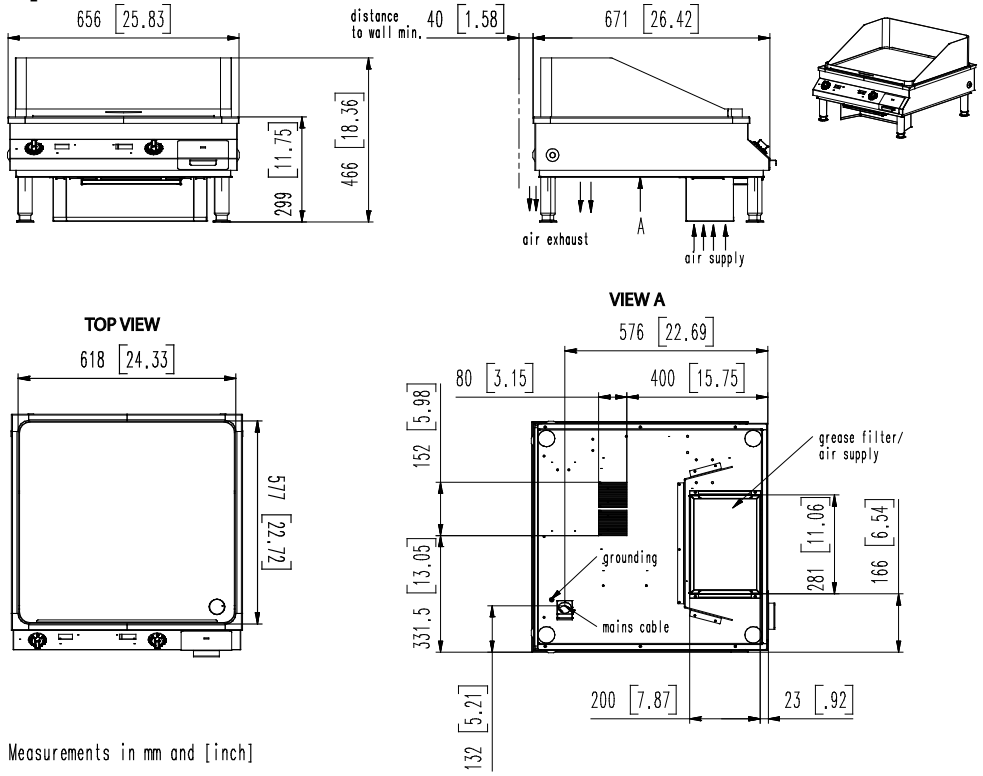
3.4 Overall Dimensions

Model	Dimensions (width x depth x height)	Griddle plate (width x depth)
SHGR	20.91" x 17.52" x 7.80" (531 x 446 x 198 mm)	19.13" x 15.82" (486 x 345 mm)
SHDUGR (208V, SS Legs, NSF compliant)	25.83" x 26.42" x 11.80" (656 x 671 x 300 mm)	24.02" x 22.44" (610 x 570 mm)
SHDUGR (440/400V)	25.83" x 26.42" x 7.80" (656 x 671 x 198 mm)	24.02" x 22.44" (610 x 570 mm)

3.5 Dimensions: Single RTCSmp Griddle SHGR 3500/5000

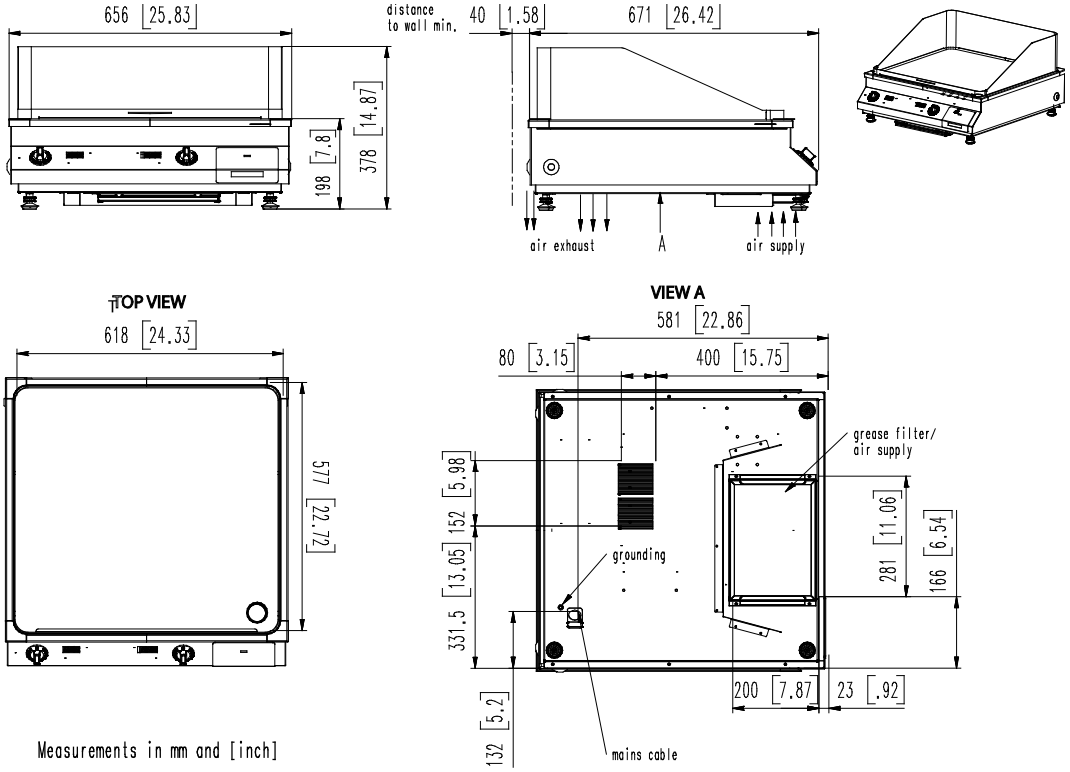


3.6 Dimensions: Dual RTCSmp Griddle SHDUGR 7000/10000 (208V NSF Compliant)



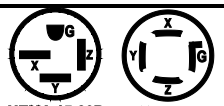
Measurements in mm and [inch]

3.7 Dimensions: Dual RTCSmp Griddle SHDUGR 7000/10000 (400V Units)



Measurements in mm and [inch]

3.8 Electrical Specifications

Model	Voltage	Power	Plug Configuration
SHGR3500	208 V AC / 1Ph	3500 W / 16A	
SHGR3500	230 V AC / 1Ph	3500 W / 15A	
SHGR3500	240 V AC / 1Ph	3500 W / 14A	
SHGR5000	208 V AC / 3Ph	5000 W / 14A	
SHGR5000	400 V AC / 3Ph	5000 W / 8A	
SHDUGR7000	208 V AC / 3Ph	7000 W / 22A	
SHDUGR7000	400 V AC / 3Ph	7000 W / 11A	
SHDUGR7000	440 V AC / 3Ph	7000 W / 10A	Plug Not Included
SHDUGR10000	208 V AC / 3Ph	10000W / 30A	
SHDUGR10000	400 V AC / 3Ph	10000W / 16A	
SHDUGR10000	440 V AC / 3Ph	10000W / 15A	Plug Not Included

3.9 Operating Conditions

Max. Tolerance of Nominal Supply Voltage	+6 /-10 %	
Network impedance (Zmax.)	0.25 Ω	
Supply frequency	50/60 Hz	
Ingress Protection class	IP X3	
Maximum Ambient Temperature	In Storage	> -4°F to +158°F (-20°C to +70°C)
	In Operation	>+ 41°F to +104°F (+5°C to +40°C)
Maximum Relative Air Humidity	In Storage	> 10% to 90%
	In Operation	> 30% to 90%

3.10 Compliances

- **North American models**:

  ETL listed in compliance with UL 197, CSA C22.2 No.109, NSF-4. Complies with FCC part 18, ICES-001

- **CE models** comply with the latest European Norms:

  EN 60335-1, EN 60335-2-36, EN 62233 (EMC/EMV)

Patents

- Europatent EP 0858722, Swiss patent 695817, US 7183525 B2

4 Installation

IMPORTANT

- Kitchen designers and installation contractors are responsible for designing and installing correctly the appropriate support structures and ventilation system for the cooking equipment.
- The installation, including electrical installation, must be carried out by registered installation contractors only. The contractors are responsible for interpreting all instructions correctly and performing the installation in compliance with national and local regulations. The warning signs and rating plates on the cooking equipment must strictly be followed.
- Read ALL SECTIONS carefully, comply with all requirements listed and ensure all inspection is done by qualified personnel.
- Refer to the technical data given in chapter ***3 Dimensions and Technical Specifications***.
- **Induction equipment that is not installed correctly will have warranty voided. See *Warranty*, p.2.**

4.1 Location

- The RTCSmp counter top unit must be installed securely on a flat, leveled and even surface. The induction unit must be set up in a way that it cannot fall down or move to an uneven position.
- Adjust the height and level the unit by adjusting the feet. If necessary, secure the unit in place with the Tabletop Self-adhesive Foot Pads (part# 72264020). See ***4.3 Legs and 4.4 Leveling the Griddle***.
- Do not place the induction unit on or near a hot surface or any heat producing equipment such as an oven or a deep fryer.
- Protect the induction unit from steam if the unit is placed next to high steam emitting equipment such as pasta cookers, steamers, and water bath.
- Allow easy access to the front control panel.
- Keep the induction unit away from combustible materials, vapors or liquids.

4.2 Ventilation

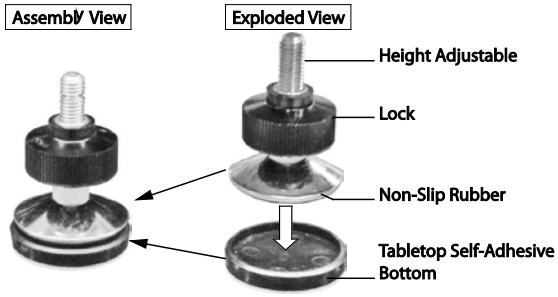
Proper cool air intake and ventilation is essential to the reliability and functioning of the induction unit. Please ensure all requirements listed below are met:

- Ensure the air inlet and air outlet are not block. **CLEARANCE**: minimum 1.57" (40mm) behind the unit, and 0.79" (20mm) on either side of the unit.
- Should this induction unit be installed in a tight space or corner, a minimum distance of 1.57" (40mm) to the surrounding walls must be provided.
- This induction unit is equipped with an internal air cooling system. Ensure the air supply and air exhaust are not blocked by a wall or any objects such as towels or containers.
- Ensure the induction unit does not take in hot ambient air from other surrounding units and appliances, especially when the installed location of the unit is close to a heat generating equipment such as a fryer or an oven.

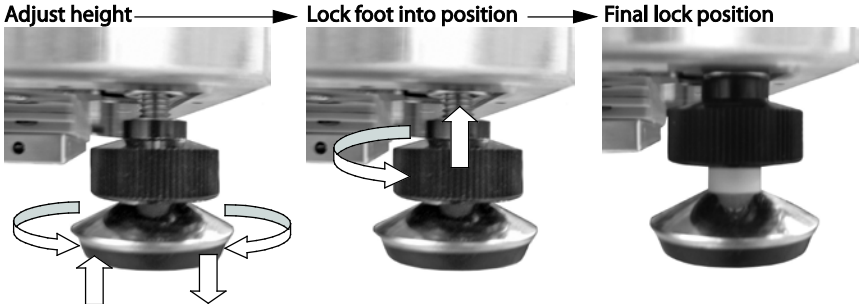
4.3 Legs

Lockable Feet

- These feet are height-adjustable and lockable. (Foot Complete Assembly part# 95000120.)
- There are non-slip rubber pads on the feet.
- Optional: the feet can be inserted into the Tabletop Self-Adhesive Foot Pads (part# 72264020). These pads can be affixed onto the counter surface.

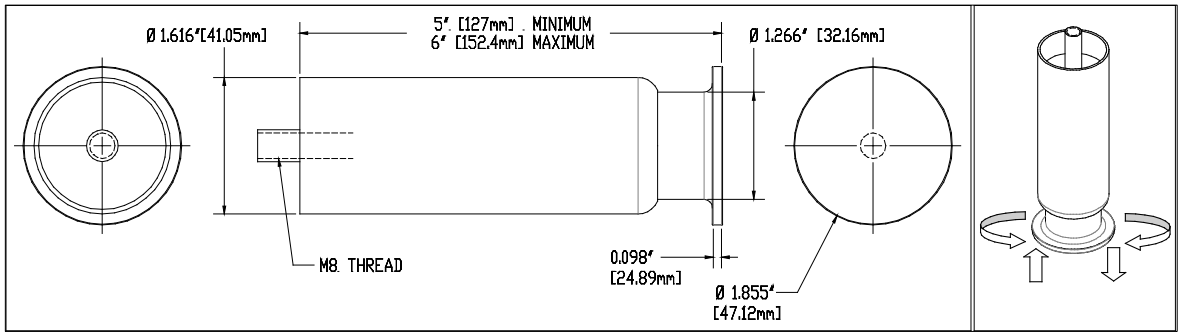


- To adjust the height of the unit, simply rotate the feet to raise or lower the unit.
- To lock the feet into position, rotate the plastic locks counter-clockwise and tighten them against the bottom of the unit.



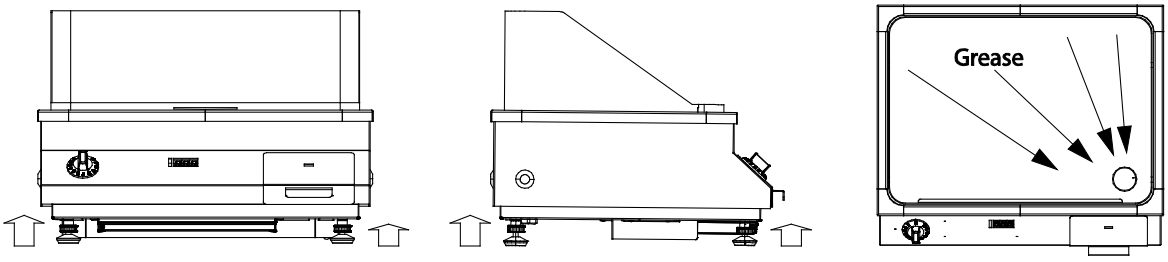
Stainless Steel Leveling Legs (208V, NSF Compliant)

- The 208V SHDUGR NSF compliant models come with stainless steel legs with a height adjustable range of 1-inch.



4.4 Leveling the Griddle

To help draining grease down into the grease drawer, adjust the feet to tilt the griddle **with a slight angle (less than 1 degree)**.



4.5 Electrical Installation

IMPORTANT

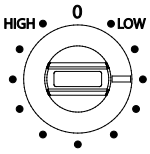
- Refer to the specifications in chapter ***3 Dimensions and Technical Specifications*** **AND the rating plate/instruction labels on the unit**. Always refer to the rating plate/instruction labels on the unit to verify the electrical data. Rating plate/label information overrides the information listed in this manual.
- Ensure the supply voltage and the line current match the specifications given on the rating plate. A stable mains supply must be provided.

CAUTION	Wrong voltage will damage the induction unit. Follow strictly the specifications on the rating plate.

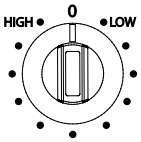
- The electrical connections must satisfy the national and local electrical codes.
- If ground fault current protective switches are used, they must be provided with selective activation and designed for a minimum fault current of 30mA. Multiple generators with a mains connection must not be connected to a single fault current protective switch.
- This induction unit is equipped with a power cable which can be connected with the necessary plug to the socket. Ensure the plug is easily accessible for disconnecting from the power supply. Put the control knob in the 0 (OFF) position BEFORE connecting to the electrical supply.

To setup the unit for operation:

1. Ensure the control knob is at the OFF-Position.



ON-Position
Any position where the White Line is not pointing at '0'.



OFF-Position
White Line is pointing at '0'.

2. Remove all objects from the griddle plate.
3. Connect the unit to power supply.
4. Perform the Function Test. See chapter ***5 Function Test***.

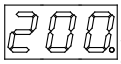
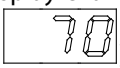
5 Function Test

IMPORTANT

CAUTION	When the unit is in use, the griddle plate is hot. To avoid burn injuries, do not touch the unit during operation.

- Before carrying out the function test, the user must understand how to operate the unit.
- Remove all objects from the griddle plate.

To perform a function test:

1. Turn the control knob to set the temperature to 392°F (200°C).
2. The display shows the selected temperature.
3. If the selected temperature (392°F / 200°C) is not changed, within 2 seconds, the display changes from the set temperature (with point ) to the actual temperature (without point ).
4. The griddle plate warms up to the set temperature.
5. As soon as the plate temperature reaches the set temperature of 392°F (200°C), turn the control knob to position 0 (OFF).
6. If the sensors detect enough residual heat, the display shows “HOT”.
7. If the residual heat from the griddle plate is low, the control system of the induction unit initiates the stand-by mode. When the system is in the stand-by mode, the point on the display blinks once every second.

For assistance, see chapter ***10 Troubleshooting*** or call a Factory Authorized Service agency.

6 Operating Instructions

IMPORTANT

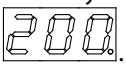
- Induction units are more powerful, heat up quicker, and cook food faster than conventional cooking equipment. Your induction unit will require different use and care than other conventional equipment. Do not operate the induction equipment without reading this manual and follow all safety requirements. Refer to chapter ***1 Safety Requirements***.
- This appliance is for professional use and shall be used only by qualified personnel.
- Do not heat cookware on the griddle; put only food products on the griddle plate.
- The induction griddle requires very little time to pre-heat. Do not leave the unit unattended during operation.

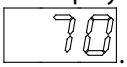
CAUTION	When the unit is in use, the griddle plate is hot. To avoid burn injuries, do not touch the unit during operation.

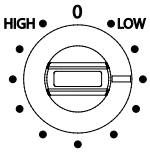
6.1 Temperature Control and Display

Set the desired temperature by turning the control knob and the unit is **immediately ready** for operation. You can adjust the temperature from 68-450ºF (20-230ºC).

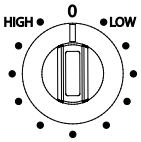
The digital display shows the temperature while you turn the knob. Stop when the desired temperature is shown.

The set temperature is shown with point .

Within two seconds, the display shows the actual temperature from the griddle plate. The actual temperature is shown without point .



ON-Position
Any position where the White Line is not pointing at '0'.



OFF-Position
White Line is pointing at '0'.

To shutdown the unit, simply turn the control knob to the OFF-position.

If the sensors detect enough residual heat, the display shows "HOT". If the residual heat from the griddle plate is low, the control system of the induction unit initiates the stand-by mode. When the system is in the stand-by mode, the point on the display blinks once every second.

Heat-up Time — Single-Zone Griddles, from 68° - 392°F (20° - 200°C):

- SHGR 3500, approx. 4 ½ minutes
- SHGR 5000, approx. 3 minutes

Heat-up Time — Double-Zone Griddles, from 68° - 450°F (20° - 230°C):

- SHGR 7000, approx. 5 minutes
- SHGR 10000, approx. 3 minutes

6.2 Grease Drawer

- Empty the grease drawer as often as necessary. Ensure it is put back in place before operating the unit.

6.3 Considerations

- **Always season the grill plate before putting any protein on.**
- **Cooking Food from Frozen**

  If frozen food is used directly on the griddle plate regularly, pay special attention that the frozen food is not always be put on the same positions on the griddle plate. Otherwise, the plate could deform locally overtime.

- **Using Proper Cooking Utensils**

  Use only Garland Induction Griddle Spatula (provided) to turn over food products on the griddle plate. Using any sharp-edged objects such as knife or fork can damage the griddle surface.

- **Recovering from Temperature Loss**

  Temperature loss occurs when cold food is put on the griddle plate. However, the RTCSmp technology can immediately sense and correct any temperature loss.

6.4 When Unit is Not In Use

Best Practice: When the induction unit is not in use, ensure the control knob is in the 0 (OFF) position.

7 Cleaning

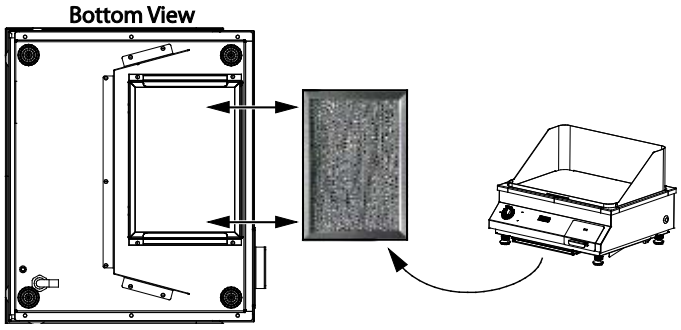
CAUTION	Ensure no liquid can enter into the induction unit. Do not let water or food overflow the cooking area. Do not use hoses to clean or power wash the induction unit or its vicinity.

CAUTION	The cleaning of the griddle plate can produce hot steams – danger of burn injuries!

CAUTION	Do not use strong detergents and dissolvers such as Ketone, Ester, and alkaline detergents. Depending on the concentration, reaction time and temperature, they could damage the Griddle plate.

IMPORTANT Air Intake Filter

A dirty, blocked air intake filter can cause electronic damage to the induction unit. Ensure to clean the filter at least once a week or as often as required. Garland's Air Intake Filter is dishwasher-safe. Wipe the filter dry before inserting it back into the Filter Holder.



Grease Drawer

- Empty the grease drawer as often as necessary. Ensure it is in place before operating the unit.

Griddle Plate

- **Do not** use steel wool, tough scratching sponges, or knives on the grill plate. Use the scrubbing pad provided with the unit.
- **Do not use ice cubes** as that can cause deformation of the griddle plate.
- To clean the griddle plate:
    1. Set temperature to 140°F / 60°C.
    2. Pour some water onto the griddle plate and let the hot water dissolve the soiling.
    3. Use non-abrasive scrubbing pads to scrape the residues into the grease drawer. To avoid burn injuries, scrub and scrape with a spatula on a non-abrasive scrubbing pad.



8 Maintenance

CAUTION	Maintenance and servicing work other than cleaning as described in this manual must be done by an authorized service personnel.



Do not open the induction unit – dangerous electric voltage inside!
The induction unit may only be opened by an authorized service personnel.

A good maintenance of the induction unit requires regular cleaning, care and servicing. The operator has to ensure all components relevant for safety are in perfect working order at all times.

Best Practice: Have the induction unit examined once a year by an authorized technician.

9 Important Rules

Simple rules to ensure reliable and repeatable performance of your induction unit:

- Keep kitchen temperature below 105°F (40°C).
- Never place your induction units next to any grease generating or heat generating equipment.
- Clean the intake filter at least once a week or as often as required.

10 Troubleshooting

	Do not open the induction unit – dangerous electric voltage inside! The induction unit may only be opened by an authorized service personnel.

CAUTION	**STOP** and **DO NOT USE** the induction unit if any part of the unit is cracked or broken. Turn off the induction unit immediately and if possible and safe, disconnect the unit from the power supply. Do not touch any parts inside the unit.

10.1 Common causes for induction unit failure

One or more of the following conditions may affect the function or contribute to the failure of the induction unit:

- High ambient temperature.
- Inadequate ventilation causing hot air to re-enter through the air intake slots.
- Dirty air intake filter.

Symptoms

When a malfunction occurs, the induction unit may be in one of the following states:

- The induction unit stops working immediately.
- The induction unit continues to work in a power reduction mode.
- The induction unit continues to work as usual.

The display may show an error code e.g. E04. Record the error code and contact a Factory Authorized Service agency for assistance

Corrective steps

Use the following sections to locate the problem area(s) and to take only the corrective action(s) indicated. Ensure you exercise safety precautions at all time.

Only an authorized service technician would have the training and correct tools to diagnose the internal components accurately and thoroughly. Contact a Factory Authorized Service agency for assistance. For a list of Garland authorized service agencies, please visit our website www.garland-group.com.

10.2 Problems and Possible Causes

Problem	Possible Causes	Action To Take By Operator
No heat, 7-segment display is OFF (dark)	No power supply.	Check the electrical supply, e.g. power cable plugged into the wall socket. Check primary fuses.
	Control knob is in OFF-position.	Turn control knob to an ON-position.
	Defective induction unit.	Ensure control knob in OFF-position and if possible and safe, disconnect the unit from the power supply. Contact your authorized service agency.
Poor heating, 7-segment display is ON (shining)	Air-cooling system blocked.	Verify that air inlet and outlet are not obstructed. Ensure the Air Intake Filter is clean.
	Defective induction unit.	Ensure control knob in OFF-position and if possible and safe, disconnect the unit from the power supply. Contact your authorized service agency.
	Ambient temperature is too high; the cooling system is not able to keep the induction unit in normal operating conditions.	Verify that no hot air is sucked in by the fan. Reduce the ambient temperature. The intake air temperature must be lower than 104°F (40°C).
	Defective induction unit.	Ensure control knob in OFF-position and if possible and safe, disconnect the unit from the power supply. Contact your authorized service agency.
Unit does not react to control knob positions	Defective control unit.	If possible and safe, disconnect the unit from the power supply. Contact your authorized service agency.
Power/heating level seems to be reduced, fan is working	Air-cooling system is blocked. Dirty air filter. Fan is dirty.	Verify that air inlet and outlet are not obstructed. Ensure the Air Intake Filter is clean. Contact your authorized service agency.
Power/heating level seems to be reduced, fan does not work	Defective fan or fan control.	If possible and safe, disconnect the unit from the power supply. Contact your authorized service agency.
After a longer permanent operating time, Power/heating level seems to be reduced	Overheated induction coil; cooking area is too hot. Overheated oil on cooking area.	Switch the unit off. Wait until the heating zone has cooled down before turning the unit ON again.

10.3 Troubleshooting with Error Codes (for Service Technicians)

When a malfunction occurs, an Error Code (e.g. E03) alternating with the set value is shown on the display. To obtain the internal data and error code for troubleshooting, you need an IR Adapter, proper connectors, and software. The table below is a reference guide. For further information and assistance, please contact Garland Technical Service.

Error Code	Possible Cause	Action To Take By Operator
E03	Overheated heat sink [1] Air-cooling system obstructed	Check installation/air flow (supply of cool air). Check fan operation.
E04	Temperature too high, griddle zone [1]	Check sensor unit.
E05	Error on power switch (rotary switch)	Check potentiometer and its wiring.
E06	Internal/generator temperature too high. [1]	Check installation/air flow (supply of cool air).
E10	Communication BUS [1]	Check all wiring.
E12	High heat sink (KK) temperature. [2]	Check installation/air flow (supply of cool air). Check fan operation.
E20	High internal temperature. [2]	Check installation/air flow (supply of cool air).
E21	Error temperature, heat sink [1]	Check wiring. Check heat sink sensor. Contact Garland.
E24	Error temperature, internal [1]	Check temperature sensor. Contact Garland.
E30	High temperature, internal [1]	Check installation/air flow (supply of cool air).
E41	Excess temperature or error of sensor 1[*]	Check sensor 1.
E42	Excess temperature or error of sensor 2[*]	Check sensor 2.
E43	Excess temperature or error of sensor 3[*]	Check sensor 3.
E44	Excess temperature or error of sensor 4[*]	Check sensor 4.
E45	Excess temperature or error of sensor 5[*]	Check sensor 5.
E46	Excess temperature or error of sensor 6[*]	Check sensor 6.
E47	Griddle plate too hot [1]	

[1] The induction unit stops working immediately.
[2] The induction unit is still working with reduced power cycles.
[*] The Unit operates as normal.

CORRECT DISPOSAL OF THIS PRODUCT

This marking  shown on the product indicates that the product should not be disposed as household waste or regular commercial waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed correctly, you will help prevent potential harm to the environment or human health, which could otherwise be caused by inappropriate waste handling of this product.

For more detailled information regarding recycling of the product, please contact your local city office, your waste disposal service or your equipment dealer.

IMPORTANT Induction units, sent for disposal, can be brought back into operation and their use should be avoided.

NOTE The unit is built with common electrical, electromechanical, and electronic parts. No batteries are used.

NOTE The owner and operator are responsible for the proper and safe disposal of the induction unit.

Garland Installation & Operation Manual

GARLAND INDUCTION SINGLE AND DUAL COUNTERTOP GRIDDLES with RTCSmp TECHNOLOGIES

Garland Commercial Ranges Ltd.
1177 Kamato Road, Mississauga,
Ontario, CANADA L4W 1X4

T. 1-905-624-0260
F. 1-905-624-5669
www.garland-group.com

USA Sales, Parts and Service 1-800-424-2411
Canadian Sales 1-888-442-7526
Canada or USA Parts/Service 1-800-427-6668

Manitowoc

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