



INSTALLATION AND OPERATION MANUAL

CG-48F, CG-60F AND CG-72F PRODUCTION GRIDDLES



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.

IN THE COMMONWEALTH OF MASSACHUSETTS
THIS PRODUCT MUST BE INSTALLED BY A
LICENSED PLUMBER OR GAS FITTER. APPROVAL
NUMBER: G-1-07-05-28

For Your Safety:

Post in a prominent location, instructions to be
followed in the event the user smells gas. This
information shall be obtained by consulting
your local gas supplier.

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 The information contained herein, (including design and parts specifications), may be superseded and is subject to change without notice.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. Operation of this product could expose you to carbon monoxide if not adjusted properly. Inhalation of carbon monoxide is known to the state of california to cause birth defects or other reproductive harm.

Keep appliance area free and clear of combustibles.

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DIMENSIONS AND SPECIFICATIONS

INSTALLATION NOTES		MINIMUM SUPPLY PRESSURE REQUIRED		ELECTRICAL CHARACTERISTICS
Combustible Wall Clearances		Natural	Propane	Specifications
Sides	Back	7" W.C. (17.4mbar)	11" W.C. (27.4mbar)	120 V, Single Phase, 60Hz, 1 amp 6' (1829mm) power supply cord provided
		MANIFOLD PRESSURE REQUIRED, AFTER BUILT-IN REGULATOR		
6" (152mm)	6" (152mm)	3.5" W.C. (8.75 mbar)	10" W.C. (25mbar)	
<ul style="list-style-type: none"> IMPORTANT: Unit must be installed on legs for proper air circulation. A minimum 4" (101mm) air space must be maintained below unit for required air flow to burners. 		<ul style="list-style-type: none"> Gas Input Ratings shown are for installations up to 2,000 feet (610mm) above sea level. BTU input ratings must be derated for high altitude installations 		<ul style="list-style-type: none"> NOTE: No cord and plug on export units. Direct connection to junction box.
ENTRY CLEARANCE		<ul style="list-style-type: none"> Commercial cooking equipment requires an adequate ventilation system. For additional information, refer to the National Fire Protection Association's Standard NFPA 96. 		<ul style="list-style-type: none"> NOTE: Export voltages are available on request. 220-240 volt, 50 Hz, 0.4 amps, single phase.
Crated	Uncrated			
40" (1016mm)	38" (965mm)			

INPUT CHART - Natural Or Propane Gas					
Model Number	BTU/HOUR	Kw	Gas Inlet	Shipping Weight	
				LBS.	KGS.
CG-48F	120,000	35.00	3/4"	625	284
CG-60F	150,000	44.00	3/4"	765	348
CG-72F	180,000	52.70	1"	905	411

INSTALLATION

IMPORTANT: The installation must comply with local codes, or in the absence of local codes, with CAN/CSA - B149 Installation Code – latest edition or with the National Fuel Gas Code NFPA 54 ANSI Z223.1 – latest edition. All burner adjustments and settings shall be made by a qualified gas technician.

Serial Plate Location

All burner inputs are shown on the Serial/Rating Plate of each unit, located on the bottom of the control section near the front.

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 contains this information.

INSTALLATION Continued

We suggest installation, maintenance and repairs should be performed by your local authorized service agency listed in your information manual pamphlet.

In the event you have any questions concerning the installation, use, care or service of the product, write or call our Product Service Department.

This product must be installed by professional personnel as specified. Garland/U.S. Range products are not approved or authorized for home or residential use, but are intended for commercial applications only. Garland / U.S. Range will not provide service, warranty, maintenance or support of any kind other than for commercial applications.

General Information

Damage Check: check carton or crate for possible damage incurred in shipping. After carefully examining, check for "concealed" damage. Report any damage immediately to your carrier.

Legs, Casters & Leveling

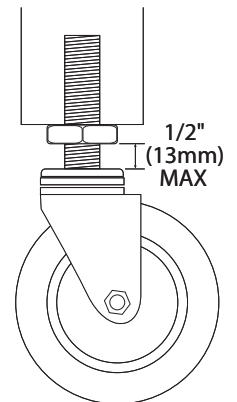
1. The unit must be installed on the legs or casters provided. A minimum 4 inch (101 mm) air space must be maintained below the unit for required air flow to the burner systems. Avoid placing any objects under the unit which could obstruct air flow to the burner systems.
2. For models equipped with casters, the installation shall be made with a connector that complies with the Standard for Connectors for Moveable Gas Appliances, ANSI Z21.69/CSA 6.16, Addenda Z21.69B-2006/CSA 6.16B-2006 (or latest edition), and a quick-disconnect device that complies with the Standard for Quick Disconnects for Use with Gas Fuel, ANSI Z21.41/CSA 6.9, Addenda Z21.41A-2005/CSA 6.16A-2005 (or latest edition).
3. Adequate means must be provided to limit movement of the appliance without depending on the connector and quick disconnect device or associated piping. This can be accomplished by attaching restraining chains/cables from floor or rear wall to rear of unit.

Ensure front casters are kept in the locked position except when the unit must be moved for cleaning or servicing, etc.

4. When the unit is installed in its operating location, level the unit by adjusting the leveling legs. Use a level across the front rear, and sides of each unit.

NOTE: The griddle plate may not rest evenly on the unit body if the unit is not properly leveled.

5. Each caster has a threaded stem to aid in leveling only. No caster should be adjusted beyond a maximum of one-half inch, (1/2"/13mm) of exposed thread with the locking nut tight against the stand leg, as shown.



Clearances

This unit must be installed in accordance with the following clearances in order to provide proper operation and servicing of the appliance.

Clearances	Sides		Back
	Left	Right	
Combustible	6" (152mm)	6" (152mm)	6" (152mm)
Noncombustible	0"	0"	0"
Service	Not Required		

Type of Floor or Base	Combustible
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Gas Connections

1. A readily accessible gas shut-off valve is provided on each unit, attached to the main manifold under the unit. The gas supply connection must be made with minimum 3/4 inch NPT pipe. Larger than 3/4 inch (19 mm) supply pipe may be required when a long run of supply pipe is necessary. Consult the pipe capacity tables in the installation code.
2. Have a qualified gas technician check the gas pressure to make certain that the existing gas facilities (meter, piping, etc.), will deliver the BTU's of gas required at the unit, with no more than 1/2 inch (12 mm) water pressure drop. When checking pressure, be certain that all the equipment on the same gas line is turned "ON".
3. The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 PSIG. (3.45 KPA).

INSTALLATION Continued

4. The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSIG. (3.45 KPA).
5. Make certain that new piping, joints and connections have been made in a clean manner and have been purged, so that the piping compound, chips, etc., will not clog valves and/or controls. Use pipe joint sealant that is approved for use with liquefied petroleum gas.
6. **WARNING:** check all gas connections for leaks, using a soap solution or similar means. Do not check with an open flame.
7. Each thermostat controls one zone burner through a combination dual solenoid/pressure regulator valve, complete with a pressure test spigot. The gas pressure on each combination valve must be checked when the unit is installed to ensure that the gas pressure is the same as specified on the Serial/Rating plate. For access to the pressure test spigots, turn the main power switch to the "OFF" position as a safety precaution, and hinge the lower front panel downwards. Pressure test spigots are located at the rear of each combination valve, including pilot combination valves. When your manometer is connected to the first combination valve for test, turn the manual shut off valve, located under the unit, to the open position (valve handle in line with piping). Turn the main power switch to "ON". All thermostat dials should be set to approximately 350°F (182°C). When all burners are operating, check the reading on the manometer. If not in accordance with the pressure specified on the Serial/Rating Plate, adjust the combination valve regulator accordingly. When satisfied with manometer reading, turn the main power switch to "OFF", remove the manometer test tube and recap the test spigot. Repeat this operation on each combination valve until each pressure regulator is set correctly. Turn each thermostat and the main power switch to "OFF".

NOTE: Make certain no electrical connections have been disturbed before replacing front panels.

Electrical Connection

IMPORTANT: This appliance must be electrically grounded in accordance with local codes, or in the absence of local codes, with the Canadian Electrical Code C22.1 (latest edition) or with the National Electrical Code ANSI/NFPA No. 70 (latest edition), whichever is applicable.

WARNING: Electrical Grounding Instructions

1. This appliance is equipped with a three prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three prong receptacle. Do not cut or remove the grounding prong from this plug.
2. A separate 15 amp service must be provided. For 120 volt usage, each unit is electrically equipped with a cord set with a three prong plug which fits any standard 120 volt, three prong grounded receptacle.
3. When the unit is ordered and built for 208/240 volt, the supply line must be connected to the wiring terminations located inside the terminal box. For ease in attaching the supply line, there is a removable cover on the terminal box. A wiring diagram is attached to the rear panel of each unit.

Ventilation

The unit must be installed in a location in which the facilities for ventilation permit satisfactory combustion of gas and proper venting. Proper ventilation is imperative for good operation of the appliance. The ideal method of ventilating a gas unit is the use of a properly designed ventilating canopy, which should extend at least 6" (152 mm) beyond all sides of the appliance (except against the wall, if the canopy is a wall installation). This is usually part of a mechanical exhaust system.

1. Appliances shall be located so as not to interfere with proper circulation of air within the confined space. All gas burners require sufficient air to operate.
2. Large objects should not be placed in front of the appliance which might obstruct the air flow through the front. Do not obstruct the flow of combustion and ventilation air.
3. Do not permit fans to blow directly at the appliance, and wherever possible, avoid open windows adjacent to the appliance sides and back; also wall type fans which create air crosscurrents within the room.

OPERATION INSTRUCTIONS

Lighting Instructions

1. First, make certain that the main power switch is set to "OFF"
2. Connect an electrical power cord to 120 volt supply.
3. Turn the gas shut off valve to the "OPEN" position (valve handle in line with piping).
4. Turn the main power switch to "ON", power switch green indicator should illuminate. Wait until gas pilot, green indicator illuminates followed by the main burner amber light indicator.

NOTE: Should pilot ignition fail after a few minutes turn the main power switch to "OFF".

Wait 5 minutes, then turn the main power switch back to "ON".

5. When the green indicators for their respective zones are illuminated, set the thermostats to the desired temperature settings.
6. The amber burner indicators cycle with the thermostat operation.

Note: During an electrical power interruption, turn power switch to the "OFF" position. This unit cannot be made to operate without electrical power.

Shut Down Instructions

1. Turn main power switch to "OFF" (thermostat dial settings may be left at their set point if preferred) at the end of daily operations.
2. For extended shut down, turn main power switch to "OFF", close the manual gas shut off valve and unplug the electrical cord set.

NOTE: Do not waste gas or abuse equipment by leaving thermostats at a high temperature setting, if not required. During idling periods, set thermostats to a low temperature setting. For example 175°F (79°C) to 200°F (93°C), to keep griddle warm. Set thermostats, as required, for periods of heavy load.

ADJUSTMENTS

NOTE: Each griddle has been factory tested and adjusted prior to shipment. It may be necessary to further adjust the unit as part of a proper installation. Such adjustments are the responsibility of the installer. Adjustments are not considered to be defects in material and workmanship, and they are not covered under the original equipment warranty.

Pilot Adjustment

A pilot adjustment valve is located in the line from each pilot combination valve. Pilot adjustment is accessible from behind the lower front panel. First remove the two screws securing the upper front panel to the body, in the upper right and left hand corners, and then slightly raise the panel to lift off. Remove to a safe area. Next, remove the two screws securing the lower front panel to the body, in the upper right and left hand corners and hinge the panel downwards.

Turning the small screw in the pilot adjusting valve clockwise reduces the amount of gas provided to the pilot(s). Turning the small screw counterclockwise increases the gas provided to the pilot(s). The gas should be adjusted to a 7/16 (11 mm) inch long flame, to ensure that the flame engulfs the top of the flame sensor.

Burners should always be warm when an adjustment to air shutters is made. To adjust air shutters, loosen the small screw along the side of the burner near the orifice. Lifting flames on the burner indicates too much air and this air shutter should be in a more closed position. Yellow tips on the flames indicate not enough air and the air shutter should be in a more open position. When the air shutter adjustments are complete on each burner, retighten the air shutter screw so that the correct setting is locked in place.

ADJUSTMENTS Continued

NOTE: Make certain no electrical connections have been disturbed. Replace both panels and secure to body.

The griddle thermostat is a precision instrument. It is carefully calibrated at the factory so that the dial setting matches the actual griddle temperature.

Thermostat Temperature Verification

1. Set each thermostat dial to the same temperature.
Unless the grill temperature is being verified for a specific function, use 360°F for the temperature setting.

Preheat the grill for 30 minutes before proceeding.

NOTE: Each minor line on the thermostat scale is 5 degrees F. Use care when making temperature adjustments.

2. Place the surface temperature probe in the locations indicated on Diagram A. Watch the amber indicator for the zone being measured. When the amber indicator is ON the burner for that zone is on. When the amber

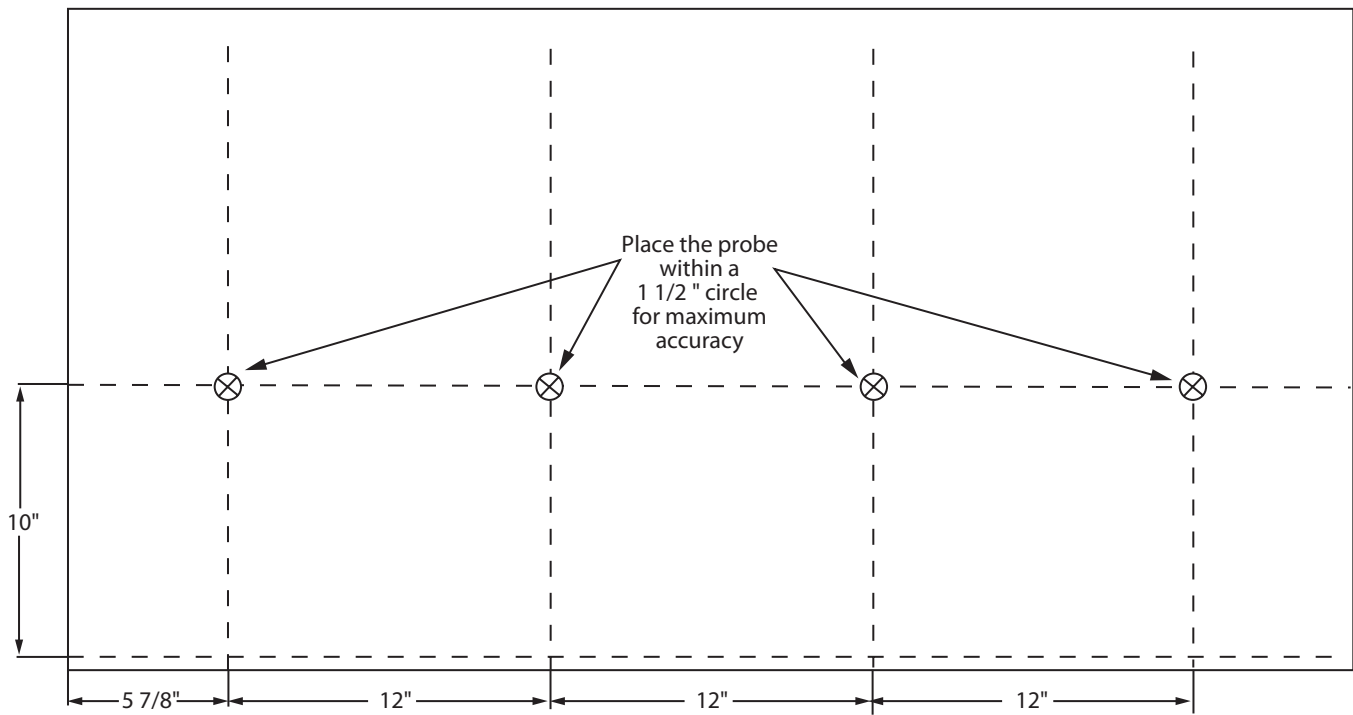
indicator goes OFF note the temperature. The measured temperature at the time the amber indicator switches off should be no more than $\pm 5^\circ\text{F}$ from the set temperature. If the error is greater than $\pm 5^\circ\text{F}$, but less than $\pm 10^\circ\text{F}$, then firmly grasp the thermostat dial (be sure to not change the 360° F setting) and loosen the dial set screw so that the dial can rotate freely on the thermostat shaft.

Carefully rotate the dial to indicate the temperature registered by your temperature indicating device and re-tighten the set screw. Each minor line on the thermostat dial's scale is 5°F.

Reposition the dial to the calibration temperature setting of 360° F. Allow sufficient time for the grill surface temperature to stabilize and repeat the above instructions.

If the temperature is greater than $\pm 10^\circ\text{F}$, consult a service technician.

Drawing A



MAINTENANCE & CLEANING

Stainless Steel

Stainless steel should be cleaned using a 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 soft clean 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 embedded and rust.

NEVER USE STEEL WOOL

Griddles

Preparing A New Griddle

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

Seasoning the Griddle

1. Using a clean cloth, rub a thin and even layer of oil into the griddle surface. Oil should be an unsalted shortening or high temperature cooking oil.
2. Set the griddle thermostat to 66°C (150°F) and heat the griddle surface until the oil begins to caramelize (turn a golden brown colour).
3. Scrape off the caramelized oil with a standard spatula.
4. Repeat step 1, and set the griddle thermostat to 135°C (275°F).
5. Repeat step 2 & 3. The griddle is now seasoned and ready for use.

Cleaning Instructions (After Each Use)

1. Using a traditional 64mm-76mm (2 1/2"-3") scraper or spatula scrape the griddle surface (to remove food particles and oil residues) towards the grease trough using even back to front strokes. Deposit debris into the chute.

2. Using a clean cloth, rub a thin and even layer of oil into the griddle surface.
3. Remove the grease drawer, empty and wash thoroughly with soap & water. Replace.

Cleaning Instructions (For Heavy Build Up)

NOTE: After using cleaners & grease cutter, re-season the griddle.

Apply to a warm griddle for best results.

1. Using a traditional 64mm-76mm (2 1/2"-3") scraper or spatula scrape the griddle surface (to remove food particles and oil residues) towards the grease trough using even back to front 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, sloop 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 a mild detergent, clean the surface and rinse thoroughly with a 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 above. The griddle is now ready for use.

Griddle Do's & Don'ts

Do's

1. Season the griddle. This will prevent foods from sticking and make it easier to keep the surface clean.
2. Keep the surface clean. Scraping the surface throughout 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 periods will conserve energy and prevent the plate from overheating.

MAINTENANCE & CLEANING Continued

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 in and caramelize which 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 overheat the griddle to preheat faster. Preheating only takes 15 – 20 minutes.

SERVICING

To ensure efficient and safe operation of the appliance it is recommended that servicing be carried out at regular intervals, the frequency of which will vary, depending on the installation conditions and usage. Usually once per year is adequate.

Servicing must be carried out by competent persons in accordance with the law.

SAFETY

It is essential that the instructions in this booklet be 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 a competent person has rectified the fault.

TROUBLE SHOOTING GUIDE

PROBLEM	CHECKS REQUIRED	ACTION REQUIRED
1. No Heat	Is cord set plugged into receptacle?	Connect cord to receptacle or check fuse/ breaker
	Is Manual Gas Valve turned to "ON"?	Turn Manual Gas Valve to "ON"
	Is Main Power switch indicator illuminated?	Turn Main Power switch to "OFF" wait 5 minutes, then turn Main power switch to "ON". If condition persists, send for a qualified service technician.
2. One Zone Not Hot Enough	Is thermostat set to correct temperature?	Reset the thermostat. If condition persists, send for a qualified service technician.
3. One Zone Too Hot	Is thermostat set too high?	Reset thermostat
	Is thermostat indicator constantly "ON"?	Reset thermostat. Send for a qualified service technician.

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