

INSTALLATION/OPERATION MANUAL
Retain for Future Reference.

GARLAND[®]
A WELBILT Company



GAS CONVECTION OVENS

MODELS: BCO-G-10 BCO-G-20



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

WARNING:
**IMPROPER INSTALLATION,
ADJUSTMENT, ALTERATION,
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.

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

WE SUGGEST INSTALLATION, MAINTENANCE AND REPAIRS SHOULD BE PERFORMED BY YOUR LOCAL AUTHORIZED SERVICE AGENCY LISTED IN YOUR INFORMATION PAMPHLET.

KEEP AREA FREE FROM COMBUSTIBLES!

FACTORY SPECIFIED REPLACEMENT PARTS MUST BE USED TO MAINTAIN CERTIFICATION. USE OF "GENERIC" REPLACEMENT PARTS MAY CREATE A HAZARD AND VOID CERTIFICATION.

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

NOTE: Unit must be installed with no less than six inches (6") clearance from combustible construction at both sides and flue riser back. Installation to Non-combustible construction is (0") clearance at both sides and six inches (6") at rear, the unit is suitable for installation on combustible floors.

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.

Continuous product improvement is a Garland policy, therefore specifications and design are subject to change without notice.

Continuous product improvement is a Garland policy, therefore specifications and design are subject to change without notice.

GARLAND[®]
A WELBILT Company

Garland Commercial Industries, Inc.
Freeland, Pennsylvania 18224

Phone (717) 636-1000
FAX: (717) 636-3903

P/N 1382638 R-2 (1/94)

Printed in the U.S.A.

GARLAND[®]
A WELBILT Company

Garland Commercial Industries, Inc.
Freeland, Pennsylvania 18224

Phone (717) 636-1000
FAX: (717) 636-3903

P/N 1382638 R-2 (1/94)

Printed in the U.S.A.

INTRODUCTION

CONGRATULATIONS! You have just purchased the finest commercial cooking equipment available anywhere.

Like any other fine, precision built appliance, it should be given regular care and maintenance. Periodic inspections by your dealer or a qualified service agency is recommended. 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.

We suggest installation, maintenance and repairs should be performed by your local authorized service agency listed in your information manual pamphlet, or you may call the factory at 1-800-424-2411.

TABLE OF CONTENTS

DIMENSIONS.....	3
INSTALLATION INSTRUCTIONS	4
INSTALLATIONS WITH CASTERS.....	5
INSTALLATION OF LEGS	7
GAS CONNECTIONS	9
ELECTRICAL CONNECTIONS.....	9
VENTING AND AIR SUPPLY.....	10
TESTING AND LIGHTING INSTRUCTIONS.....	11
OPERATION INSTRUCTIONS	12
PERFORMANCE RECOMMENDATIONS	13
PROBLEMS/SOLUTIONS.....	15
USE GUIDE	16
CLEANING	17

CUSTOMER NOTICE

OPTIONAL EXTENDED WARRANTY

GARLAND, with a tradition of superior equipment quality and performance, offers you, our valued customer, an additional one year limited warranty beyond our standard one year coverage.

This additional coverage for parts and labor may be purchased on a new equipment order or up to 60 days after the equipment purchase. Please contact your Equipment Dealer or Maintenance & Repair Center (list enclosed) to take advantage of this exceptional offer. Thank you for using GARLAND products. It is our pleasure to serve you.

- To reinstall reverse procedure. Place the bottom of the rack guide against the cavity wall. Keeping the top pulled away from the wall lift up. Push the top of the rack guide against the wall and push down locking it into place.

NOTE: Disconnect line cord from power before cleaning or servicing. Exercise caution in cleaning around the wires connection the temperature probe. These must not be pulled out or severed. Do not remove temperature probe cover.

OVEN INTERIOR - OPTIONAL PORCELAIN ENAMEL

Establish a regular cleaning schedule or wipe off on the same day when spillovers occur.

- Cool down oven.
- Remove oven racks.
- Lift rack guides on either side of oven off of holders, pull the top away from the cavity wall, when it's cleared the clips push down and remove. Racks and guides may be run through dishwasher while oven cavity is being cleaned.
- Clean with soap and water using a non-metallic scouring pad, if necessary. If dirt and grease have accumulated, a mild ammonia solution or commercial oven cleaner such as Easy-Off or Dow may be used.
- To reinstall reverse procedure. Place the bottom of the rack guide against the cavity wall. Keeping the top pulled away from the wall lift up. Push the top of the rack guide against the wall and push down locking it into place.

Note: Exercise caution in cleaning around the wires connection the temperature probe. These must not be pulled out or severed. Do not remove temperature probe cover.

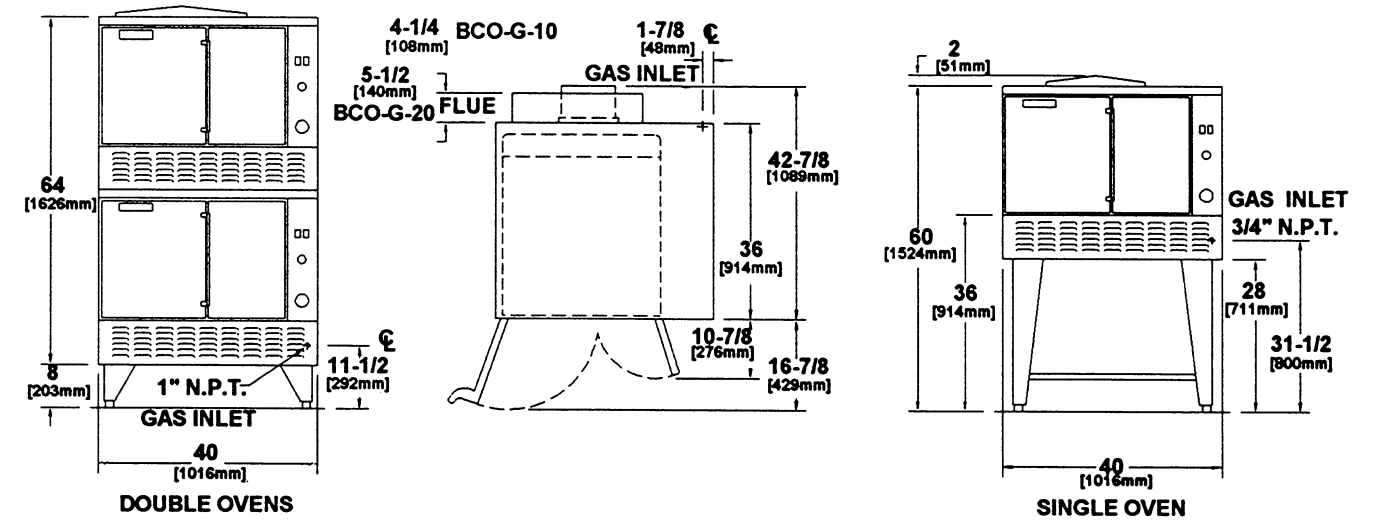
MOTOR CARE

The motor on your GARLAND 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. When the motor is operating, it cools itself internally by air entering at the rear of the motor case, provided proper clearance has been allowed.

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 life of the motor.

We recommend, at the end of the bake or roasting period, when the oven will be idle for any period of time or before shutting down completely, that the doors be left open, and by use of the cool-down position of the fan switch, the fan continues to run at least five minutes. The "Fan" should never be turned "Off" when the oven is "Hot".

DIMENSIONS AND SPECIFICATIONS



Interior Dimensions (per deck)

Model #	W	H	D
BCO-G-10	29/736	20 1/2/520	28 1/2/723
BCO-G-20	29/736	20 1/2/520	28 1/2/723

Installation Notes

NATURAL GAS (Available for LPG Operation) **ELECTRIC 120VAC/1PH**

BCO-G-10	BCO-G-20	BCO-G-10	BCO-G-20
80,000 BTU/HR	160,000 BTU/HR	One 1/2 HP Motor	Two 1/2 HP Motors
One 3/4" NPT gas inlet	One 1" NPT gas inlet	@ 6.2 amps	@ 6.2 amps ea.

Note: 6 ft. line cord w/plug supplied on each oven section.

Commercial cooking equipment requires an adequate ventilation system. For additional information refer to The National Fire Protection Association's standard #96. "Vapor Removal from Cooking Equipment."

INSTALLATIONS INSTRUCTIONS

INSTALLATION NOTES:

Combustible Wall Clearance*

Entry Clearance

Side:	6.0"	Crated	44.5"	(1130 mm)
Rear:	6.0"	Uncrated	32.5"	(826 mm)
Base:	8.0"			

* For reduced clearance refer to ANSI Z223.1/NFPA #54.

Clearances: From Combustible material 6" at rear and 6" sides.

The importance of the proper installation of Commercial Gas Cooking Equipment cannot be overstressed. Proper performance of the equipment is dependent, in great part, on the compliance of the installation with the manufacturer's specifications. In addition, compliance with the National Fuel Code ANSI Z223.1-1988(NFPA No. 54) or the latest edition and/or local codes is required to assure safe and efficient operation.

Before assembly and connection, check gas supply.

- A. The type of gas for which the unit is equipped is stamped on the data plate located behind lower front panel. Connect a unit stamped "NAT" only to natural gas; connect those stamped "PRO" only to propane gas.
- B. If it is a new installation, have gas authorities check meter size and piping to assure that the unit is supplied with sufficient amount of gas pressure required to operate the unit.
- C. If it is additional or replacement equipment, have gas authorities check pressure to make certain that existing meter and piping will supply fuel at the unit with not more than 1/2" water column pressure drop.
- D. Obtain a pressure regulator to deliver gas at the pressure shown on the rating plate. This unit is not supplied with a pressure regulator, but it is available as an option.

NOTE: When checking pressure be sure that all other equipment on the same gas line is on.

The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at pressures in excess of 1/2 PSIG (3.45 KPa).

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressure equal to or less than 1/2 PSIG (3.45 KPa).

NOTE: In Canada, the installation shall be in accordance with CAN/CGA-B149.1 NATURAL GAS INSTALLATION CODE or CAN/CGA-B149.2 PROPANE GAS INSTALLATION CODE and local codes where applicable.

NOTE: Adequate clearance must be provided for servicing and proper operation.

CLEANING

Break-In Period

When oven is new, operate it for one hour at 450 degrees before you begin your normal cooking operation. After cooling, wipe the interior, including the racks, with a clean damp cloth.

Exterior Cleaning

Establish a regular schedule. Any spills should be wiped off immediately.

1. Wipe exposed, cleanable surface when cool with a mild detergent and hot water. Stubborn residue spots may be removed with a light weight non-metallic scouring pad. Dry thoroughly with a clean cloth.
2. 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. Use a water based stainless cleaner (Drackett Twinkle), if you want a high shine.
3. The control panel surface is easily cleaned with hot water, soap and a soft cloth. Do not use hard abrasives, solvent type materials or metallic scouring pads since these will scratch or cloud the surface.
4. Never spray the perforated areas or control panel with steam or water as this will allow moisture into the control cavity which could damage electrical components.

Interior Cleaning of Standard Aluminized Steel Interior Surfaces

The oven sides and top linings are formed of heavy gauge steel with an aluminum fused into its surface to provide for the reflectance of heat back to the food being prepared and to virtually eliminate the possibility of rust formation. Establish a regular cleaning schedule or wipe off on the same day when spillovers occur.

1. Cool down oven.
2. Remove oven racks.
3. Lift rack guides on either side of oven off of holders, pull the top away from the cavity wall, when it's cleared the clips push down and remove. Racks and guides may be run through dishwasher while oven cavity is being cleaned.
4. Use a concentrated detergent on a plastic pad to remove burned on soil. **DO NOT USE STEEL WOOL, OVEN CLEANER OR ABRASIVE POWDERS.** These will remove the aluminum. Rinse with warm water on a soft cloth. Be sure to remove all traces of detergent. Any discoloration which may remain after the soil build-up has been removed will not affect the performance of the oven.

USE GUIDE

PRODUCT	TEMPERATURE	TIME
Sheet Cakes (5 lbs. ea.)	325	18 min.
Soda Biscuits	400	6 min.
Yeast Rolls	325	20 min.
Corn Bread	350	20 min.
Gingerbread	300	18 min.
Chocolate Cake	325	20 min.
Chocolate Chip Cookies	375	8 min.
Sugar Cookies	325	12 min.
Yellow Cake	325	15 min.
Angel Food Cake	275	25 min.
Brownies	350	15 min.
Apple Turnovers	350	25 min.
Cream Puffs	300	30 min.
Apple Pie (fresh)	375	30 min.
Pumpkin Pie	275	35 min.
Berry Pie (frozen)	350	35 min.
Fruit Pie (frozen)	350	45 min.
Pizza (individual frozen)	450	5 min.
Macaroni and Cheese	350	30 min.
Cheese Sandwiches (toasted)	400	7 min.
Hamburger Patties	400	8 min.
Baked Potatoes (120 count)	400	55 min.
Fish Sticks	350	16 min.
Stuffed Peppers	350	15 min.
Chicken Parts	350	35-40 min.
Meatloaf	325	40 min.
Rolled Beef (20 lbs. ea.)	300	4 hrs.
Prime Rib	275	6 hrs.
Stuffed Pork Chops	375	25 min.
Lamb Chops (loin)	375	12 min.
Veal Roast (boned)	300	3 hrs.

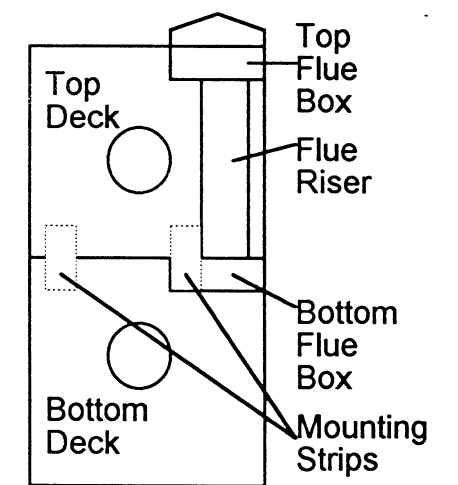
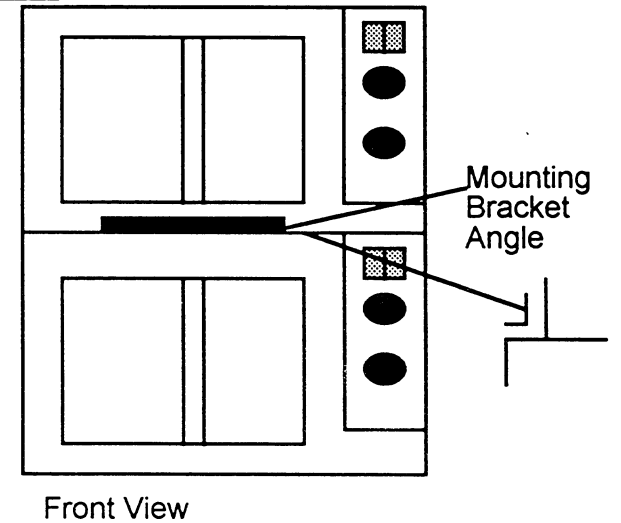
NOTE: THE SUGGESTED TIMES AND TEMPERATURES MAY VARY CONSIDERABLY FROM THOSE SHOWN ABOVE. THEY ARE AFFECTED BY WEIGHT OF LOAD, TEMPERATURE OF THE PRODUCT, RECIPE AND TYPE OF PAN.

INSTALLATION FOR OVENS EQUIPPED WITH CASTERS

- A. The installation shall be made with a connector that complies with the Standard for Connectors for Moveable Gas Appliances, ANSI Z21.69-1987 (or the latest edition) and a quick disconnect device that complies with the Standard for Quick-Disconnect Devices for use with gas fuel, ANSI Z21.41-1989 (or latest edition).
- B. The front casters of the unit are equipped with brakes to limit the movement of the oven without depending on the connector and any quick-disconnect device or its associated piping to limit the appliance movement.
- C. The restraint can be attached to the unit near the gas inlet. If the restraint is disconnected, be sure to reconnect the restraint after the oven has been returned to its originally installed position.

DOUBLE DECK MODELS - BCO-G-20, BCO-G20-X

- A. Position insert in bottom leg opening and tap insert up into leg till it seats at collar. Attach eight inch (8") legs to lower oven section. Raise unit. Do not lay unit on its back or sides. Place the front legs on the oven so as to line up with four (4) attaching bolt holes. Secure leg to oven frame using (4) 1/4 x 20 bolts and washers provided. Repeat at rear of unit.
- B. Remove combustion chamber front of top deck (located under oven doors). Raise top deck into place and line up body sides and back of the unit. Position mounting angle to line up with four attaching holes located in center of unit. You, the installer, must drill two holes in the main top of the bottom deck to secure the mounting angles. Secure mounting angle with four (4) metal screws provided. Fasten the rear of the two (2) units together, with mounting strips to line up four attaching holes located in the base of the top deck and the top of the lower deck.
- C. The flue for the Convection Oven consists of three pieces. A Lower flue box and an upper flue box and a riser which connects the two flue boxes. Attach flue box over flue opening at the rear of the top unit with screws provided. Do the same for bottom units. Once complete install the flue riser as shown in diagram.
- D. Assemble the stacking pipes provided in the Stacking Kit. Check leveling of unit four(4) ways (by the oven rack inside the oven), and hook up gas feed line.
- E. Plug the cord set of each unit into a 115 Volt power supply outlet.
- F. Maintain Clearance from combustibles.



CAUTION: DISCONNECT POWER SUPPLY BEFORE ATTEMPTING TO CLEAN OR SERVICE.

Each gas appliance shall be located with respect to building construction and other equipment so as to permit access to the appliance. Such access and clearance may be necessary for servicing and cleaning.

INSTALLATION OF LEGS, STAND

VERIFY ALL PARTS ARE PRESENT BEFORE BEGINNING ASSEMBLY

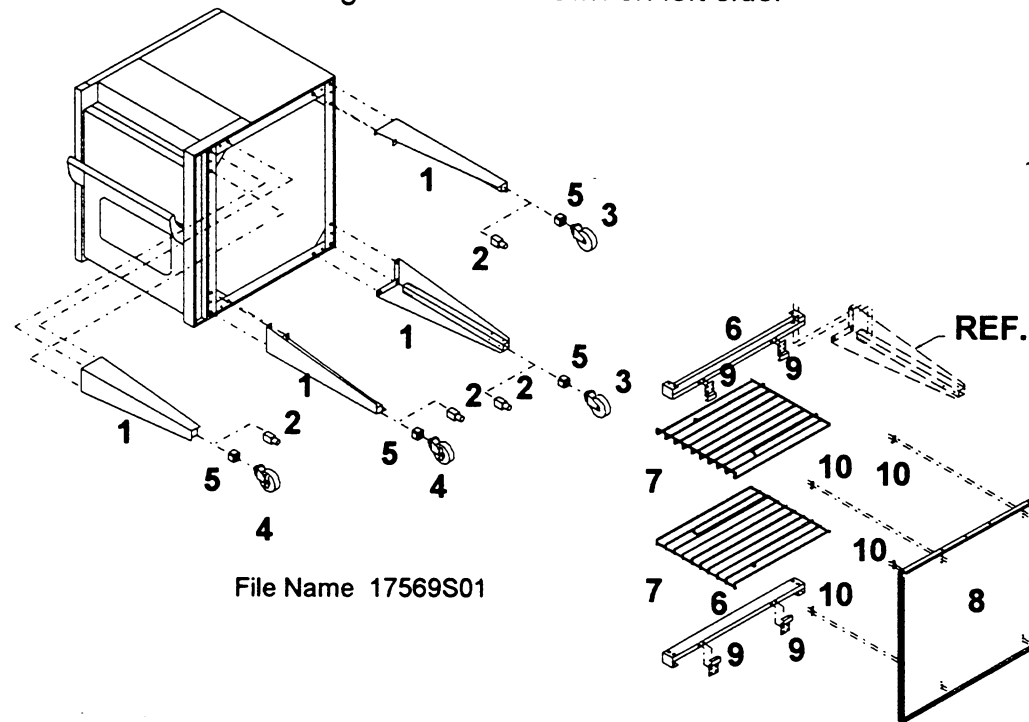
PARTS LIST

ITEM #	QTY	DESCRIPTION
1.	4	LEGS
2.	4	SQUARE FOOT INSERTS (FOOT VERSION ONLY)
3.	2	HEAVY DUTY CASTERS WITHOUT BRAKES(CASTER VERSION ONLY)
4.	2	HEAVY DUTY CASTERS WITH BRAKES(CASTER VERSION ONLY)
5.	4	CASTER PAD ASSEMBLIES(CASTER VERSION ONLY)
6.	2	OPEN STAND UPPER RACK SUPPORT (OPEN BASE VERSIONS ONLY)
7.	2	RACK GUIDES (OPEN BASE VERSIONS ONLY)
8.	1	OPEN STAND LOWER RACK SUPPORT
9.	4	RACK GUIDE CLIPS (TOP)
10.	4	RACK GUIDE CLIPS (BOTTOM)
	1	BAG OF HARDWARE
	12	3/8" - 16 x 3/4" BOLTS
	12	3/8" FLAT WASHERS
	16	10-24 x 3/4" HEX HEAD MACHINE SCREWS
	16	#10 SPLIT RING LOCK WASHERS
	16	10 - 24 HEX NUTS
	28	#10 x 3/4" TRUSS HEAD SHEET METAL SCREWS

TOOLS REQUIRED FOR ASSEMBLY

- | | |
|-----------------|-------------------------------|
| 1. 9/16" Wrench | 3. 1" Wrench |
| 2. 3/ 8" Wrench | 4. Phillips Head Screw Driver |
| | 5. Hammer (Foot Version Only) |

Diagram of unit shown on left side.



File Name 17569S01

PROBLEMS/SOLUTIONS

Problems	Solutions
If cakes are dark on the sides and not done in the center.....	Lower oven temperature.
If cakes edges are too brown.....	Reduce number of pans or lower oven temperature.
If cakes have light outer color.....	Raise temperature.
If cake settles slightly in the center.....	Bake longer or raiseoven temperature slightly. Do not open doors too often for long periods.
If cake ripples.....	Overloading pans or batter is too thin.
If cakes are too coarse.....	Lower oven temperature.
If pies have uneven color.....	Reduce number of pies per rack or eliminate use of bake pans.
If cupcakes crack on top.....	Lower oven temperature.
If meats are browned and not done in center	Lower temperature and roast longer.
If meats are well done and browned.....	Reduce time. Limit amount of moisture.
If meats develop hard crust.....	Reduce temperature or place pan of water in oven.
If rolls have uneven color.....	Reduce number or size of pans.

5. When practical, start cooking the lowest temperature product first and gradually work up to higher temperatures.
6. If you find that your previous temperature setting is more than 10 degrees higher than needed for succeeding loads, use the cool down mode on the fan to reach the desired temperature before resetting thermostat.
7. When loading oven, work as quickly as possible to prevent loss of heat.
8. Oven will continue to heat even though the timer goes off. Product should be removed from the oven as soon as possible to avoid over cooking.
9. Center pans on racks and load each shelf evenly to allow for proper air circulation within the cavity.
10. When baking, weigh or measure the product in each pan to assure even cooking.
11. When cooking five pans, use rack positions 2,4,6,8, and 10, starting from the top.
12. Do not overload the oven. Five pans are suggested for most items, i.e., cakes, cookies, rolls, etc.: however, the maximum (10 pans) may be used for fish sticks, chicken nuggets and hamburgers. Cooking times will have to be adjusted.
13. Muffin pans should be placed in the oven back to front or with the short side of the pans facing the front. This results in the most evenly baked product.
14. When rethermalizing frozen casseroles, preheat the oven 100 degrees over the suggested temperature: return to cooking temperature when the oven is loaded. This will help compensate for the introduction of a large frozen mass into the cavity.
15. Use pan extenders or two inch deep 18"x26" pans for batter type products which weigh more than eight pounds, i.e., Pineapple Upside Down Cake.
16. Never place anything directly on the bottom of the oven cavity. This obstructs the air flow and will cause uneven results.

NOTE: Moisture will escape around the doors when baking products with heavy moisture content, such as: chicken, potatoes, and etc.

All units have a controllable vent. The vent control is located at the inner front top of the oven cavity. Movement to the left will close the vent and movement to the right will open the vent. Keep vent closed during preheat. The desired dryness or moisture of the finished product will dictate the setting of the vent.

ASSEMBLY INSTRUCTIONS FOR OPEN BASE

1. Raise unit or lay it on its left side.
2. For foot versions take a hammer and lightly tap a square foot insert (2) into each leg.
3. For caster versions attach a caster pad assembly (5) to the bottom of each leg. Position caster pad (5) and drill four 11/64 diameter holes in leg and fasten caster pad to leg with #10 Phillips head sheet metal screws.
4. For caster versions screw the heavy duty casters with brake (4) into the front legs and the heavy duty casters without brakes (3) into the rear legs.
5. Attach each leg (1) with three 3/8" bolts and flat washers.
6. Mount right and left open stand upper rack support (6) to the front and rear legs using #10 Phillips head sheet metal screws.
7. Mount four rack clips (9) to the upper rack supports (6) with 10-24 bolts, nuts and lock washers. If the holes at the edge of the rack clip (9) are used it will accommodate 18" x 26" pans, if the holes in the center of the rack clip (9) are used it will accommodate oven racks.
8. Mount the open stand lower rack support (8) to the legs using #10 Phillips head sheet metal screws.
9. Place the rack guides (7) on the rack clips (9). Attach the bottom of each rack guide (7) to the lower rack support (8) with two lower rack clips (10) with 10-24 nuts, bolts and lock washers.
10. Make sure all bolts and screws are tight.
11. Stand the unit up.
12. Move the unit into its desired location.
13. Level the oven using a 1" wrench to adjust the feet or the casters.

ASSEMBLY INSTRUCTIONS FOR STAND

1. Raise unit or lay it on its left side.
2. For foot versions take a hammer and lightly tap a square foot insert (2) into each leg.
3. For caster versions attach a caster pad assembly (5) to the bottom of each leg. Position caster pad (5) and drill four 11/64" diameter holes in leg and fasten caster pad to leg with #10 Phillips head sheet metal screws.
4. For caster versions screw the heavy duty casters with brakes (4) into the front legs and the heavy duty casters without brakes (4) into the rear legs, (single deck only).
5. Attach each leg (1) with three 3/8" bolts and flat washers.
6. Make sure all bolts and screws are tight.
7. Stand the unit up.
8. Move the unit to its desired location.
9. Level the oven using a 1" wrench and adjust the feet or the casters.
12. Attach the rack guides to the upper rack supports using the remaining rack guide clips. Attach these clips using #10-24 x 3/4" PHILIPS head machine screws, #10-24 hex nuts.
13. Tighten all screws and nuts.
14. Stand the unit up.
15. Move the unit to its desired location.
16. Level the oven using a 1" wrench to adjust the feet or the casters.

ASSEMBLY INSTRUCTIONS FOR DOUBLE DECK CASTERS

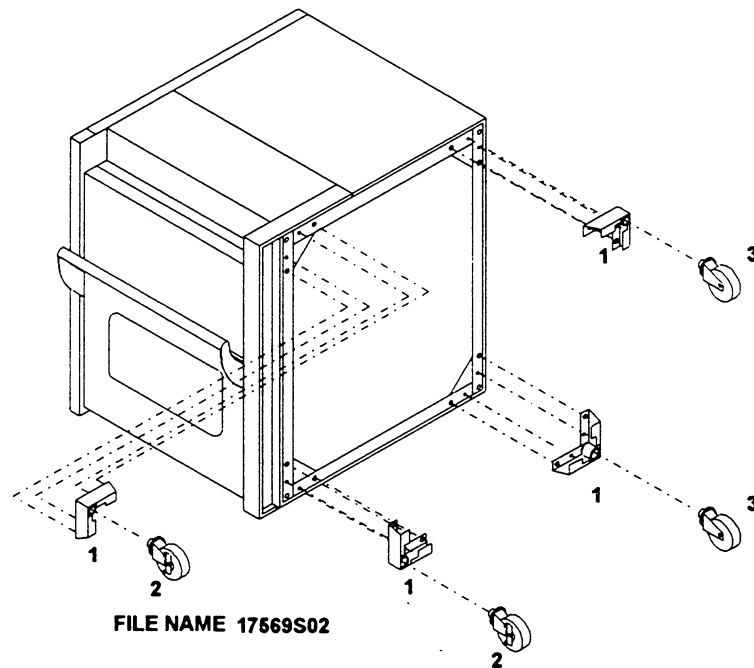
VERIFY ALL PARTS ARE PRESENT BEFORE BEGINNING ASSEMBLY

PARTS LIST

ITEM #	QTY	DESCRIPTION
1.	4	CASTER PADS ASSEMBLY
2	2	HEAVY DUTY CASTER WITHOUT BRAKE
3	2	HEAVY DUTY CASTER WITH BRAKE
	1	BAG OF HARDWARE
	8	3/8" - 16 x 3/4" BOLTS
	8	3/8" FLAT WASHER
	8	1/4" HEX TYPE B SHEET METAL SCREWS
	8	SPLIT RING LOCK WASHERS

TOOLS REQUIRED FOR ASSEMBLY

1. 9/16" Wrench
2. 3/8 " Wrench
3. 1" Wrench



ASSEMBLY INSTRUCTIONS FOR DOUBLE DECK CASTERS

1. Raise unit or lay it on its left side.
2. Attach each caster pad (1) with two 3/8" bolts and flat washers and two 1/4" hex type "B" sheet metal screws and lock washers.
3. Screw the heavy duty casters with brakes (2) into the front casters pads and the heavy duty casters with out brakes (3) into the rear caster pads.
4. Make sure all bolts and screws are tight.
5. Stand the unit up.
6. Move the unit into its desired location.
7. Level the oven using a 1" wrench to adjust the casters.

SHUT DOWN INSTRUCTIONS

1. Turn thermostat dial 7 to off position. Return power switch 4 to off.
2. If the unit is to be shut down for an extended period of time, close the manual gas service valve (located behind the combustion chamber safety cover).

POWER FAILURE

In the event of a power failure, no attempt should be made to operate this oven. This unit is gas operated but has electrical features, motor, electric thermostat and solenoid.

FOR YOUR SAFETY: KEEP YOUR APPLIANCE AREA FREE FROM COMBUSTIBLES.

TO CONSERVE ENERGY

Do not waste energy by leaving controls at high temperature settings during idle periods. Lower settings will keep oven warm and ready for next use period. Reset controls as required for heavy load period.

IMPORTANT

All gas burners and pilots need sufficient air to operate and large objects should not be placed in front of this oven, which would obstruct the air flow through the front.

Objects should not be placed on main top rear of oven while in use. This could obstruct the venting system of the units flue products.

FOR YOUR SAFETY: KEEP YOUR APPLIANCE AREA FREE FROM COMBUSTIBLES.

PERFORMANCE RECOMMENDATIONS

Your GARLAND Convection Oven will give you the best quality product and service if you familiarize yourself with the following operation suggestions and information.

1. Preheat oven thoroughly (appx. 20 minutes) before use.
2. As a general rule, temperature should be reduced 25 to 50 degrees from that used in a standard/conventional oven. Cooking time may also be shorter, so we suggest closely checking the first batch of each product prepared. Use the cooking chart as a guide.
3. Use the chart of suggested times and temperatures as a guide. These will vary depending upon such factors as size of load, temperature and mixture of product (particularly moisture) and density of product.
4. Keep a record of the times, temperature and load sizes you establish for various products. Once you have determined these, they will be similar for succeeding loads.

OPERATING INSTRUCTIONS

EXPLANATION OF CONTROLS

Switch Cool Down: In this position, the fan motor will run continuously either with the oven door in the open or closed position.

Timer: Turn timer clockwise to desired time. It will count down to zero and the buzzer will sound. The buzzer will continue until the dial is turned counterclockwise to the OFF position.

NOTE: Operation is the same for the five hour timer.

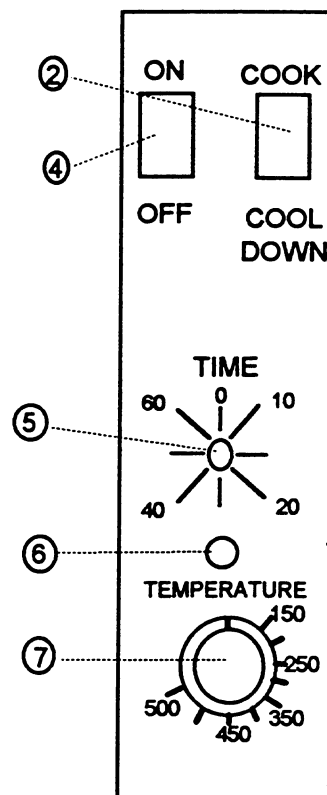
Light: Illuminates when power switch is placed in "ON" position. When temperature is reached, the light goes out.

Temperature Control: The temperature indications are shown on the dial's surface. Turn the dial to desired temperature.

MANUAL CONTROLS

NOTE: Manual pilot lighting is required on standard ovens.

1. Activate power switch 4. Activate cook switch 2.
2. Set temperature dial 7 to desired temperature setting.
3. Allow a minimum 20 minute preheat time. When desired temperature is reached, the illuminated (amber) 6 indicating light will go out.
4. Load oven, for best results; load bottom to top. Set timer if desired. *See cooking chart for suggested times and temperatures.



AUTOMATIC COOL DOWN FEATURE

1. Turn temperature dial 7 to "OFF" position, set mode switch 2 to cool down position.
2. Open oven doors. Allow a minimum of 30 minutes for the oven temperature to be reached.
3. At the end of daily use, we recommend that the doors be left slightly open for complete cooling.

GAS CONNECTIONS

The 1" NPT inlet at the rear must be considered in piping the gas supply for double stack units, (3/4" NPT for single deck units). Undersized gas supply line(s) may restrict the gas supply and affect performance. If other gas appliances are supplied by the same supply line, the supply line must be sized to carry the combined volume without causing more than 1/2" pressure drop at the manifold of each appliance on the line at full rate. Pressure regulators are required for proper operation of these models. Pressure regulators are not supplied with these ovens from the manufacturer but are available as optional equipment. Pressure regulators setting are 4.0" W/C for those stamped "NAT" for natural gas and 10.0" for those stamped "PRO" for propane gas.

ELECTRICAL CONNECTIONS

A 15 AMP service must be provided for each oven. For 115v usage, a cord and plug is provided but connection to the electrical service must comply with local codes; or in the absence of local codes, with the National Electrical Code, ANSI/NFPA No. 70- 1990 (or the latest edition).

Each oven is electrically equipped with a cord set with a three prong plug which fits all standard 115v three prong grounded receptacle.

Wiring diagrams are attached to the rear of the unit and a copy of most common units wiring diagrams are included in this manual.

WARNING: ELECTRICAL GROUNDING INSTRUCTIONS

All ovens, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes with the National Electrical Code ANSI/NFPA 70-1990 (or the latest edition).

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.**

WARNING

This product contains chemicals known to the State of California to cause cancer and/or birth defects of other reproductive harm. *Installation and servicing of this product could expose you to airborne particles of glasswool/ceramic fibers. Inhalation of airborne particles of glasswool/ceramic fibers is known to the State of California to cause cancer. Operation of this product could expose you to carbon monoxide in not adjusted properly. Inhalation of carbon monoxide is known to the State of California to cause birth defects or other reproductive harm.

VENTILATION AND AIR SUPPLY

Proper ventilation is highly important for good operation. The ideal method of venting a GAS Convection Oven is through the use of a properly designed canopy which should extend 6" beyond all sides of the appliance and 6'6" from the floor.

A strong exhaust fan will create a vacuum in the room, for an exhaust system vent to work properly, replacement air must enter the room in which the vent is located. For proper air balance contact your local H.V.A.C. contractor.

All gas burners and pilots need sufficient air to operate and large objects should not be placed in rear and bottom of this oven which would obstruct the air flow through the front.

INSTALLATION OF A DIRECT FLUE

When the installation of a canopy type exhaust hood is impossible the oven may be direct vented. Before direct venting check your local codes on ventilation.

If the unit is to be connected directly to a direct flue, it is necessary that a flue cap assembly and 8" draft diverter (for double deck units) or a flue cap assembly and 6" draft diverter (for single deck units) be installed to insure proper ventilation.

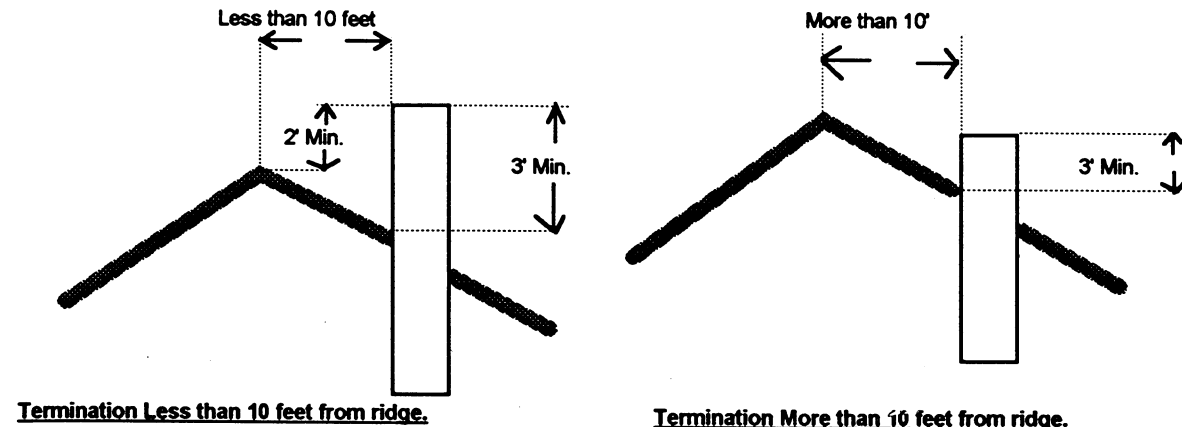
Direct venting as described above, should be positioned on the existing flue box and fastened with sheet metal screws provided. All parts described above are available from GARLAND.

NOTE: Each oven has been factory tested and adjusted prior to shipment. It may be necessary to further adjust the oven as part of a proper installation. Such adjustments are the responsibility of the installer.

Adjustments are not considered defects in material and workmanship, and they are not covered under the original equipment warranty.

DO NOT UNDERSIZE VENT PIPE! This can cause resistance to flow and impede good venting.

If a horizontal run must be used it should rise no less than 1/4" for each linear foot of run. The flue should rise 2' to 3' above the roof line or 2' to 3' above any portion of a building within a horizontal distance of 10 feet.



TESTING AND LIGHTING INSTRUCTIONS

PILOT LIGHTING INSTRUCTIONS: MANUAL PILOT ONLY

1. Open combustion chamber door located directly under oven doors.
2. Depress and hold the red reset button located on the oven safety valve.
3. With a lighted taper, ignite the pilot which is located to the right of the burner package about 9" inward from the manifold.
4. Once the pilot ignites it is necessary to hold the red reset button until the pilot thermocouple is heated (appx. 1 min.).
5. Release the red button if the pilot does not stay lit, wait five minutes and repeat this procedure.

MODELS WITH INTERMITTENT ELECTRONIC IGNITION SYSTEMS & CONTROLS

1. Turn on main gas valve. Open the combustion chamber drop door and leak test all fittings and connections upstream from the service valve located on the redundant combination gas valve. Should any gas leaks be detected, turn OFF main gas valve, correct the problem and retest.
2. Open shutoff valve located on the redundant combination gas valve. Activate rocker switch on control panel to cook position. Adjust thermostat to desired temperature. Amber light on control panel will cycle with burner. The pilot and burner is now ignited by direct spark. Check all fittings again and correct any leaks and recheck.

NOTE: All electronic ignition systems are supplied with a redundant gas valve. Therefore, the unit is not supplied with an external pressure regulator.

NOTE: During installation there will be air in the gas line, this air will have to bleed off before ignition can be established. The electronic ignition system has a eight second lock-out as a safety device.

POWER FAILURE:

In the event of a power failure, no attempt should be made to operate this oven. This unit is gas operated but has electrical features, motor, controls and solenoid.

IMPORTANT: All gas burners need sufficient air to operate and objects should not be placed on main top rear of unit while in use. This could obstruct the venting system of the units flue products.

FOR YOUR SAFETY: KEEP YOUR APPLIANCE AREA FREE FROM COMBUSTIBLES.