

Электрические конвекционные печи серии Master MCO-E-5/25 с механическим управлением

Инструкция по эксплуатации

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


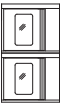

эл.почта: gub@nt-rt.ru || сайт: <https://garland.nt-rt.ru/>



models

MCO-E-5-C
MCO-E-25-C

Model Numbers

Model	Full-Size	Half-Size	Single Deck	Double Deck	Master ₂₀₀ Control
					
MCO-E-5-C		✓	✓		✓
MCO-E-25-C		✓		✓	✓

Warranty

Visit www.Garland-Group.com to view or download a copy of your warranty.

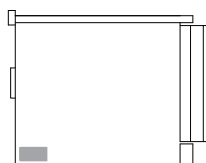
Serial Plate Location

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.

A duplicate serial number tag is located behind the control panel.

Ovens Built between 01-June-2011 and

- The serial plate is affixed to the lower left corner of the left body panel.



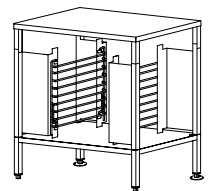
Ovens Built after 02-FEB-2015

- The serial plate is affixed to the upper right corner of the left body panel.



Accessories

- Stainless steel stand with rack guides, single deck oven only
- Swivel Casters (set of 4) with front brakes
- Extra oven rack

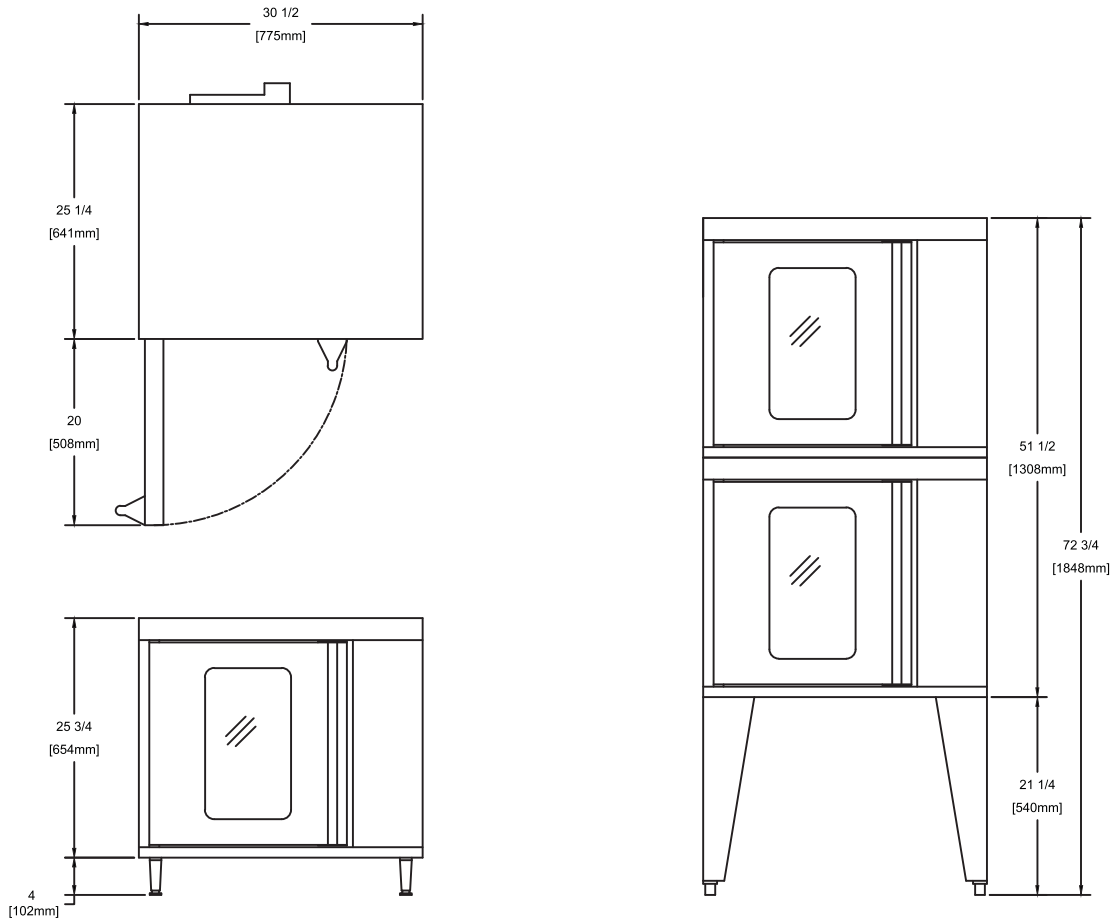


DIMENSIONS AND SPECIFICATIONS

Package	Total kW	Nominal Amperes Per Line							
		208V/1Ph	240V/1Ph	208V/3Ph			240V/3Ph		
				X	Y	Z	X	Y	Z
Standard	5.6	27	23	23	12	14	20	12	14
Option	7.5	39	33	23	21	22	20	18	19

Model	Interior Dimensions (per deck)			Shipping Information	
	Width	Height	Depth	Lbs./Kg	Cu. Ft.
MCO-E-5-C	15-1/2" (939mm)	20 (510mm)	21 1/8 " (537mm)	340/155	38.5
MCO-E-25-C	15-1/2" (939mm)	20 (510mm)	21 1/8 " (537mm)	680/310	77

* **NOTE:** Double deck ovens are provided with individual supply connections



INSTALLATION

Entry Clearance

- Crated: 37" (940mm)
- Uncrated: 31" (788mm)

Installation Clearance

NOTE: Always provide adequate clearance for maintenance and operation.

- Installation adjacent to combustible and non-combustible wall, minimum clearance:

	Left Side	Control Side	Rear
Single-Deck	1" (26 mm)	1" (26 mm)	1" (26 mm)
Double-Deck	1" (26 mm)	2" (51 mm)	1" (26 mm)

- Installation near high heat producing equipment, minimum clearance:

	Left Side	Control Side	Rear
Single-Deck	1" (26 mm)	6" (153 mm)	3" (77 mm)
Double-Deck	1" (26 mm)	6" (153 mm)	3" (77 mm)

Notice

Avoid installing ovens near equipment, such as char-broilers or fryers, which generate high heat and high grease laden air.

- Clearance for Service (recommendation):

	Control Side, minimum
Single-Deck	12" (305 mm)
Double-Deck	12" (305 mm)

NOTE: Install units with casters in very tight locations for ease of service.

WARNING: Care must be taken in installation to allow for airflow around units, especially when placed near other heat producing sources. A 4" spacing is recommended for the control side of the oven from other heat producing sources.

Installation of Ovens Equipped with Casters

- Adequate means must be provided to limit the movement of the appliance without depending on the connector wiring.
- The front casters of the unit are equipped with brakes to limit the movement of the oven without depending on the connector wiring to limit the appliance movement.
- A restraint can be attached to the unit. If the restraint is disconnected, be sure to reconnect the restraint after the oven has been returned to its originally installed position.

Installation of Double Deck Models

- Position insert in bottom leg opening and tap insert up into leg until it seats at collar. Attach 21 1/4" (540mm) legs to lower oven section. Raise unit or lay on its left side. 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) 3/8-16 x 3/4 bolts and washers provided. Repeat at rear of unit.
- Place the unit that will be the bottom oven upright. Raise top deck into place and line up body sides and back of the unit. Fasten the rear of the units together, with the stacking bracket provided in the stacking bracket kit, using the instructions provided in the kit.
- Check leveling of unit four (4) ways (using a common carpenter's level on the rack inside the oven).
- Maintain clearance from combustibles.

CAUTION: Disconnect both ovens from electrical supply before servicing to protect against shock!

Ventilation

WARNING: Inadequate ventilation may result in a high ambient temperature at the rear of the oven. Excessive ambient temperature can cause tripping of the blower motor's thermal overload protection device. This condition must be corrected immediately to avoid damage to the blower motor.

IMPORTANT : Large objects should not be placed in front of this oven, which would obstruct the airflow 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.

INSTALLATION Continued

Electrical Connections

Before attempting the electrical connection, the rating plate should be checked to ensure that the unit's electrical characteristics and the supply electrical characteristics agree.

THE ELECTRICAL POWER LINES MUST BE INSTALLED IN ACCORDANCE WITH:

- The National Electrical Code, ANSI/NFPA No. 70 latest edition (USA)
- Canadian Electrical Code, CSA C22.2
- Any other applicable National, State or municipal codes and regulations..

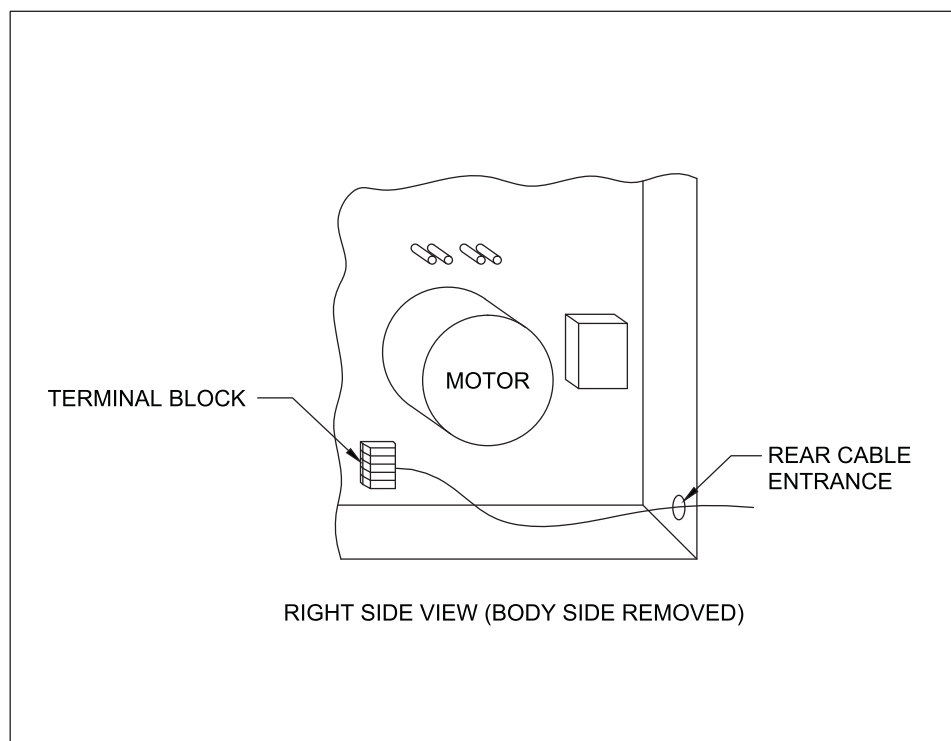
THE FOLLOWING CONDITIONS MUST BE ADDRESSED:

1. Switch panel size
2. Overload protection
3. Wire type
4. Wire size
5. Temperature limitations of the wires
6. Method of connection (Cable, Conduit, etc.)

The service line will enter through the rear of the unit and is

to be connected to the terminal block (see diagram below). The terminal block is accessed by removing the right side body panel.

Input voltage and phasing must match the units voltage and phasing. Wiring diagram is attached to the main back of each oven. Visually check all electrical connections. Energize electric service to units. The range is wired standard for three phase connections. If it is necessary to change to single phase, please refer to wiring diagram attached to the rear of the oven. Service and unit voltage must agree.



OPERATING INSTRUCTIONS

Master 200 Solid State Control with Electromechanical Timer

Modes

In Off Mode

When the oven is off, there are no lights or indicators.

Start Up

Press the **COOK/OFF/COOL DOWN** rocker switch to the "**COOK**" position. The green lamp will light indicating the oven is powered in cook mode.

The oven will begin to heat to the temperature set on the thermostat dial. The amber lamp will light indicating the heat is active. As the heat cycles on and off to maintain the set temperature this light will go on and off accordingly.

The door must be closed for the oven to operate in cook mode. Opening the door will cause the heat to stop and the motor and fan will shut off. This is a safety feature.

Fan Speed

The fan speed can be either high (1725RPM) or low (1150RPM). The fan speed is controlled by the left rocker switch marked high and low.

Cool Down

Pressing the **COOK/OFF/COOL** down rocker switch to the **COOL DOWN** position activates the fan and motor to cool the oven cavity. The door must be open slightly for the fan and motor to start. The heat is not active in this mode.

Optimal cool down will be achieved with the door open slightly. Opening the door too far will shut the fan and motor off. This is a patented safety feature.

Pressing the button to the **OFF** position cancels the cool down and turns the oven off.

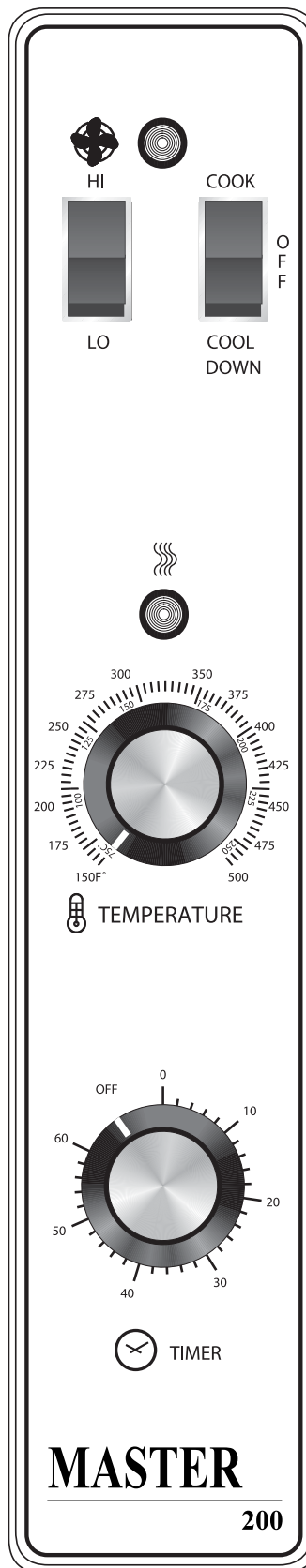
Temperature

The temperature range is from 150° to 500°F (66°C to 250°C) is controlled by rotating the temperature dial and aligning the indicator to the desired temperature.

Timer

The timer is set by rotating the dial clockwise aligning the indicator to the desired time cycle. The timer will count down from 2 minutes to 60 minutes. At the end of the timing cycle the buzzer will sound. The buzzer is turned off by rotating the dial counter-clockwise to the off position.

NOTE: The timer does not control heating.



PERFORMANCE RECOMMENDATIONS & SAFETY PRECAUTIONS

1. Preheat oven thoroughly (approx. 20 minutes) before use.
2. As a general rule, temperature should be reduced 25° to 50° from that used in a standard/convection oven. Cooking time may also be shorter, so we suggest closely checking the first batch of each product prepared.
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.
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° higher than needed for succeeding loads, COOL DOWN to reach the desired temperature before setting a new cooking temperature.
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 1, 3, 5, 7 and 9, starting from the top.
12. When re-thermalizing frozen casseroles, preheat the oven 100° 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.
13. Never place anything directly on the bottom of the oven cavity. This obstructs the airflow and will cause uneven results.

Note: Moisture will escape around the doors when baking products with heavy moisture content, such as chicken, potatoes, etc. This is normal.

PROBLEM/SOLUTIONS

Problem	Solution
Cakes are dark on the sides and not done in the center	Lower oven temperature
Cakes edges are too brown	Reduce number of pans or lower oven temperature
Cakes have light outer color	Raise temperature
Cake settles slightly in the center	Bake longer or raise oven temperature slightly. Do not open doors too often or for long periods
Cake ripples	Overloading pans or batter is too thin
Cakes are too coarse	Lower oven Temperature
Pies have uneven color pans	Reduce number of pies per rack or eliminate use of bake pans
Cupcakes crack on top	Lower oven temperature
Meats are browned and not done in center	Lower temperature and roast longer.
Meats are well done and browned	Reduce time. Limit amount of moisture
Meats develop hard crust	Reduce temperature or place pan of water in oven.
Rolls have uneven color	Reduce number or size of pans.

COOKING GUIDE

The following suggested times and temperatures are provided as a starting guide. Elevation, atmospheric conditions, recipe, cooking pans and oven loading may affect your actual results.

PRODUCT	TEMPERATURE (°F)	TIME
Cakes		
White Sheet Cakes – 5 lbs	300°	20 min
White Sheet Cakes – 6 lbs	300°	22 min
Yellow Sheet Cake – 21 oz	325°	15 min
Yellow Sheet Cake – 5 lbs	325°	22 min
Chocolate Layer Cake – 21 oz	300°	22 min
Angel Food Cake	375°	22 min
Brownies	350°	15 min
Breads		
Soda Biscuits	400°	6 min
Yeast Rolls	325°	24 min
Sweet Bread	325°	24 min
Corn Bread	350°	22 min
Gingerbread	300°	24 min
Apple Turnovers	350°	25 min
Cream Puffs	300°	25 min
Sugar Cookies	325°	12 min
Chocolate Chip cookies	375°	8 min
Apple Pie (Fresh)	375°	25 min
Blueberry Pie (Fresh)	350°	30 min
Blueberry Pie (Frozen)	300°	50 min
Pumpkin Pie (Frozen)	300°	50 min
Frozen Pizza	300°	6 min
Macaroni & Cheese	350°	15 min
Fish Sticks	350°	16 min
Stuffed Peppers	350°	45 min
Baked Potatoes	350°	60 min
Meats		
Chick Parts	350°	45 min
Hamburger Patties-10/lb frozen	350°	8 min
Hamburger Patties - 10/lb fresh	350°	5 min
Hamburger Patties - 4/lb frozen	350°	12 min
Hamburger Patties – 4/lb fresh	350°	8 min
Meatloaf – 4lb	325°	45 min
Bacon	350°	10 min
Roast Beef 20lb	325°	3 hr 15 min
Prime Rib 10lb	300°	1 hr 45 min
Stuffed Port chops	350°	45 min
Lamb chops	375°	40 min
Boneless Veal Roast	300°	3 Hr

CLEANING AND MAINTENANCE

NOTE: Disconnect line cord from power supply before cleaning or servicing.

Break-In Period

When oven is new, operate it for one hour at 375°F (191°C) 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. The oven should always be allowed to cool sufficiently before any cleaning is attempted.
2. Wipe exposed, cleanable surface when cool with a mild detergent and hot water. Stubborn residue spots may be removed with a lightweight non-metallic scouring pad. Dry thoroughly with a clean cloth.
3. Stainless Steel surfaces can often be cleaned adequately using a mild soap and warm water solution on a sponge of soft cloth. Dry thoroughly.

Stubborn stains may be removed by using a non-metallic abrasive pad, rubbing in the direction of the metal's grain. If necessary, for particularly heavy deposits, you may mix a thin paste of water and scouring powder, and apply it with a sponge. Be careful to apply light pressure and remember to rub only in the direction of the grain in the metal.

4. 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.
5. Never spray the perforated areas of the control panel with steam or water jets, as this allow moisture into the control cavity. Moisture could damage the electrical components or place the operator at risk of electrical shock.

Interior Cleaning

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. Racks and guides may be run through dishwasher while oven cavity is being cleaned.

4. 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.
5. 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 guide against the wall and push down locking it into place.

Fan Area Maintenance

If aluminum foil is routinely used to wrap food or cooking vessels during oven operation, the following preventive maintenance must be performed:

1. Turn power switch to "Off" position
2. Remove oven racks and rack guides.
3. Remove air baffle and clean any stains or deposits.
4. Check blower wheel and air baffle for particles of aluminum foil or food deposits. Clean fins of blower wheel. (CAUTION: edges of blower wheel fins may be sharp).
5. Reinstall the air baffle, rack guides and oven racks.

This simple practice, if performed on a regular basis will keep your Garland oven operating at peak performance.

Motor Care

The motor on your 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 slightly. Operate the oven in COOL DOWN mode in accordance with the operating instructions until the oven is sufficiently cooled.

NOTE: Optimal cool-down will be achieved with the door open slightly.

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