

OWNER'S MANUAL

High Efficiency Gas Convection Oven

Standard Depth

8100 (Single) & 8192 (Stacked)

Bakery Depth

8300 (Single) & 8392 (Stacked)



WARNING:

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THESE INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

FOR YOUR SAFETY:

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.



MARKET FORGE
INDUSTRIES INC.

An Employee Owned Company

"The Premier Steam Cooking Equipment Manufacturer"

Form Number: S-6100 10/12

Printed in USA

35 Garvey Street, Everett, MA 02149
Telephone (617) 387-4100, (866) 698-3188, Fax (617) 387-4456, (800) 227-2659
custserv@mfii.com, www.mfii.com

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INTRODUCTION

Instructions to be followed in the event the user smells gas shall be posted in a prominent location in the kitchen area. This information shall be obtained by consulting the local gas supplier. Retain this manual for future reference.

Important Information:

Safe and satisfactory operation of your equipment depends on proper installation. Installation must conform with local codes, or in the absence of local codes, the National Fuel Gas Code, (*ANSI Z-223.1 Latest Edition*). In Canada installation should conform to installation codes for gas burning appliances and equipment standard (*CAN1-B149.1 Natural Gas*) or (*CAN1-B149.2 Propane Gas*).

Electrical wiring from the Electric Meter, main control box or service outlet to appliance must be electrically grounded in accordance with local codes or, in the absence of local codes, the National Electric Code (*ANSI/NFPA 70 Current*). In Canada wiring should conform with Canadian Electrical Code (*CSA-C22.1*).

Shipping Damage Claim Procedure:

The equipment is crafted and inspected carefully by skilled personnel before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of this equipment. If shipment arrives damaged:

Visible loss or damage:

Note the damage or loss on freight bill or express delivery and signed by the person making the delivery.

File claim for damages immediately:

Regardless of the extent of damages.

Concealed loss or damage:

If damage is noticed after unpacking, notify the transportation company immediately and file a "Concealed Damage" claim with them. This should be done within fifteen (15) days from the date delivered. Retain container for inspection.

Service:

Installation of the equipment should be performed by qualified, certified, licensed and/or authorized personnel who are familiar with and experienced in state/local installation codes.

Operation of the equipment should be performed by qualified and authorized personnel who have read this manual and are familiar with the functions of the equipment.

Service of the equipment should be performed by qualified personnel who are knowledgeable with Market Forge cooking equipment.

Air Supply and Ventilation:

The area in front of, around and above the appliance must be kept clear to avoid any obstruction of the flow of combustion and ventilation air. Adequate clearance must be maintained at all times in front and at the sides of the appliances for servicing and proper operation.

Means must be provided for any commercial, heavy-duty cooking appliance to exhaust combustion waste products to the outside of the building. Usual practice is to place the unit under an exhaust hood. Filters and drip troughs should be part of any industrial hood. Consult local codes before constructing and installing a hood.

Strong exhaust fans in this hood or in the overall air conditioning system can produce a slight vacuum in the room and/or cause air drafts, either of which can interfere with pilot or burner performance and can also be hard to diagnose. Air movement should be checked during installation; if pilot or burner outage problems persist, make-up air openings or baffles may have to be provided in the room.

INSTALLATION

READ BEFORE INSTALLING

Clearance:

When installing ovens against combustible surfaces (*rear or side walls*) 6" (152mm) clearance is required. When installing ovens against non-combustible surfaces (*rear or side walls*) 0" clearance is required.

Leveling:

A carpenter's spirit level should be placed on the oven's center baking rack and the unit leveled both front-to-back and side-to-side. If it is not level, cakes, casseroles, and any other liquid or semi-liquid batter will not bake evenly, burner combustion may be erratic, and the unit will not function efficiently.

If the floor is relatively smooth and level, the unit may be further leveled with adjustment in the foot of the leg. Units with casters must be leveled with shims. A unit will probably not return to the same position after being moved, requiring re-leveling after each and every move.

Rating Plate:

The rating plate is located in front of the oven below the oven section. Information on this plate includes the model, and serial number, BTU / hour input of the burners, operating gas pressure in inches WC, and whether the appliance is orificed for Natural or Propane gas. Pilot lighting instructions are also located in the same area.

UNIT MUST BE CONNECTED ONLY TO THE TYPE OF GAS IDENTIFIED ON THE RATING PLATE!

Electrical Connection:

Oven requires a 120 volt supply to operate the ignition system and blower. The supply cord provided along with the appliance is equipped with a three prong (*grounding*) plug for protection against shock hazard. The electrical service in the building must be equipped with a properly grounded three prong receptacle, in accordance with local codes, or in the absence of local codes, with the national electrical code, ANSI/NFPA 70-1987, in Canada, conform with Canadian electrical codes, CSA-C22.1.

Do not cut or remove the grounding prong from this plug. Wiring diagram is located on the backside of the appliance.

Disconnect power supply before cleaning or servicing.

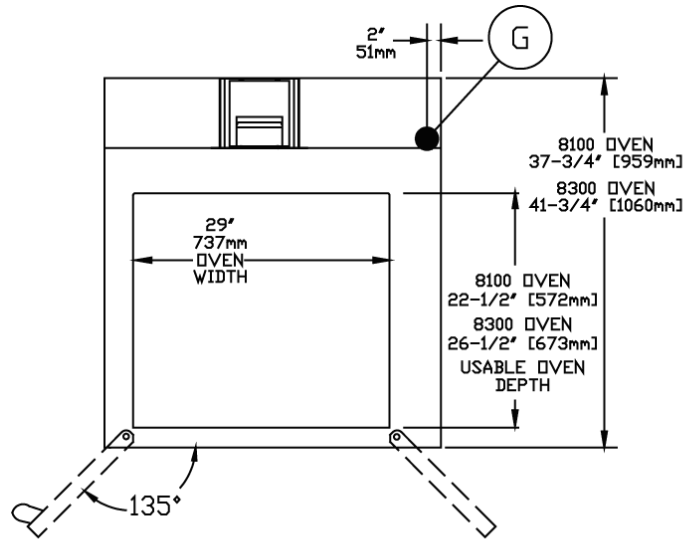
NOTE: *This appliance is not capable of being operated in the event of power failure. No attempt should be made to operate this appliance during power failure.*

Gas Connection:

Single Deck oven requires one gas connection. Stacked oven requires two gas connections. The gas supply (*service*) line must be the same size or greater than the inlet line of appliance. Oven uses a 3/4" NPT inlet. Sealant on all pipe joints must be resistive to LP gas.

Single Oven Service Connections:

Models 8100 and 8300.

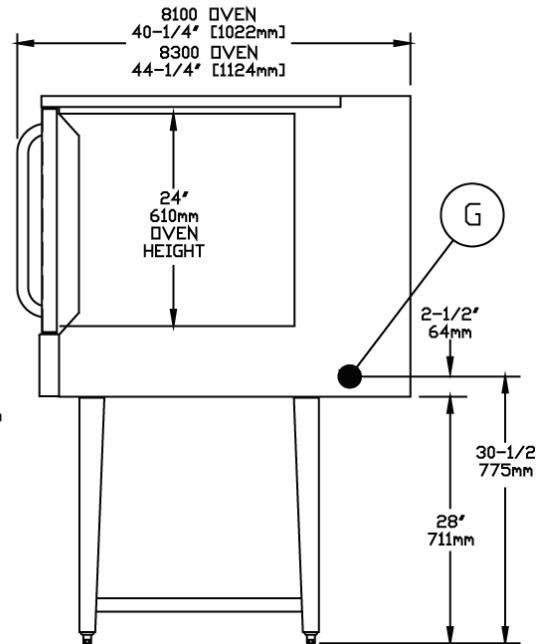
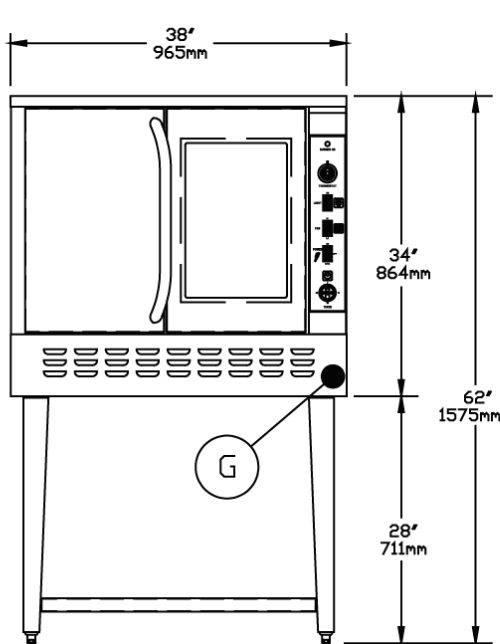


Gas Fired

G	Gas Connection – 3/4" (20mm) NPT on the right hand rear of the appliance.
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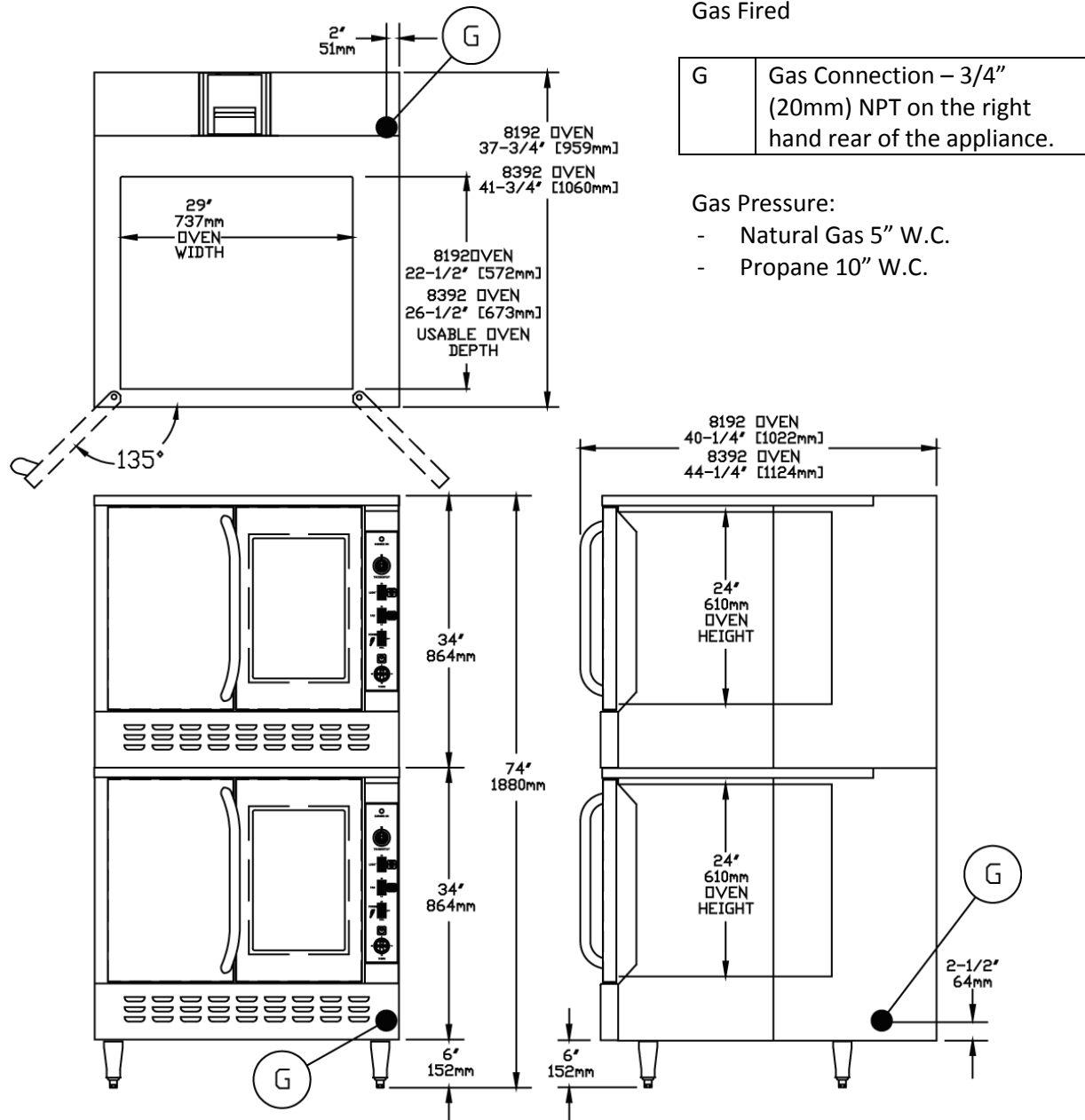
Gas Pressure:

- Natural Gas 5" W.C.
- Propane 10" W.C.



Stacked Oven Service Connections:

Models 8192 and 8392.



Manual Shut-Off Valve:

This installer-supplied valve must be installed in the gas service line ahead of the appliance and regulator in the gas stream and in a position accessible in the event of an emergency.

Pressure Regulator:

All commercial cooking equipment must have a pressure regulator on the incoming service line for safe and efficient operation, since service pressure may fluctuate with local demand. The pressure regulator comes with the oven. **Failure to install the pressure regulator will void the equipment warranty!**

The regulators supplied with MARKET FORGE INDUSTRIES, INC. Ovens, have 3/4" inlet /outlet openings and are adjusted at the factory for 5" WC (*Natural gas*) or 10" WC (*Propane gas*) depending on customer's ordering instructions.

Prior to connecting the regulator, check the incoming line pressure, as these regulators can only withstand a maximum pressure of ½ PSI (14"WC). If the line pressure is beyond this limit, a step-down regulator will be required. The arrow shown on the bottom of the regulator body shows gas flow direction; it should point downstream to the appliance. The red air vent cap on the top regulator is part of the regulator and should not be removed.

Any adjustments to regulators must be made only by qualified service personnel with the proper equipment.

Connections:

Please check installer-supplied intake pipes visually and /or blow them out with compressed air to clear any dirt particles, threading chips, or other foreign matter before installing a service line. When gas pressure is applied these particles can clog orifices. All connections must be sealed with a joint compound suitable for LP gas, and all connections must be tested with a soapy water solution before lighting any pilots!

Flexible Coupling, Connectors and Casters:

If the unit is to be installed with flexible couplings and /or quick-disconnect fittings, the installer must use a AGA design-certified commercial flexible connector of at least 3/4" NPT (*with suitable strain relief*). The flexible connector must comply with the standard for Connectors for Movable Gas Appliances, ANSI Z21.69 and addendum Z21.69a (*or latest edition*) and a quick-disconnect device that complies with the standard for quick-disconnect devices for use with Gas Fuel should comply with ANSI Z21.41 and addendum Z21.41a (*or latest edition*). If disconnection of the restraint is necessary, make sure to reconnect restraint after the appliance has been returned to its originally installed position. Domestic gas or water connectors are not suitable!*Restraining device may be attached to the back frame/panel of unit.

If the unit is to be installed with casters, a flexible connector must be used and the same ANSI standards apply. Locking front casters are provided to limit the movement of the appliance without depending on the connector or associated piping. A suitable strain relief must be installed with the flexible connector. All connections must be sealed with a joint compound suitable for LP gas and all connections must be tested with a soapy water solution before lighting pilots.

Lighting:

CAUTION: When lighting pilots and checking for leaks, do not Stand with your face close to the combustion chamber.

All MARKET FORGE INDUSTRIES, INC. appliances are adjusted and tested before leaving the factory, effectively matching them to sea level conditions. Adjustments and calibrations to assure proper operation may be necessary on installation to meet local conditions; low gas characteristics, to correct possible problems caused by rough handling or vibration during shipment, and are to be performed only by qualified service personnel. These adjustments are the responsibility of the customer and/or dealer and are not covered by our warranty. Check all gas connections for leaks with a soapy water solution before lighting any pilots.

DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS!

Putting an open flame beside a new gas connection is extremely dangerous. A. Turn the thermostat dial to the "OFF" position. Place the power switch to the "OFF" position. B. Wait five minutes. C. Place power switch to the "ON" position. Turn the oven thermostat to the desired temperature. D. For a complete shutdown, place the thermostat and power switch in the "OFF" position.

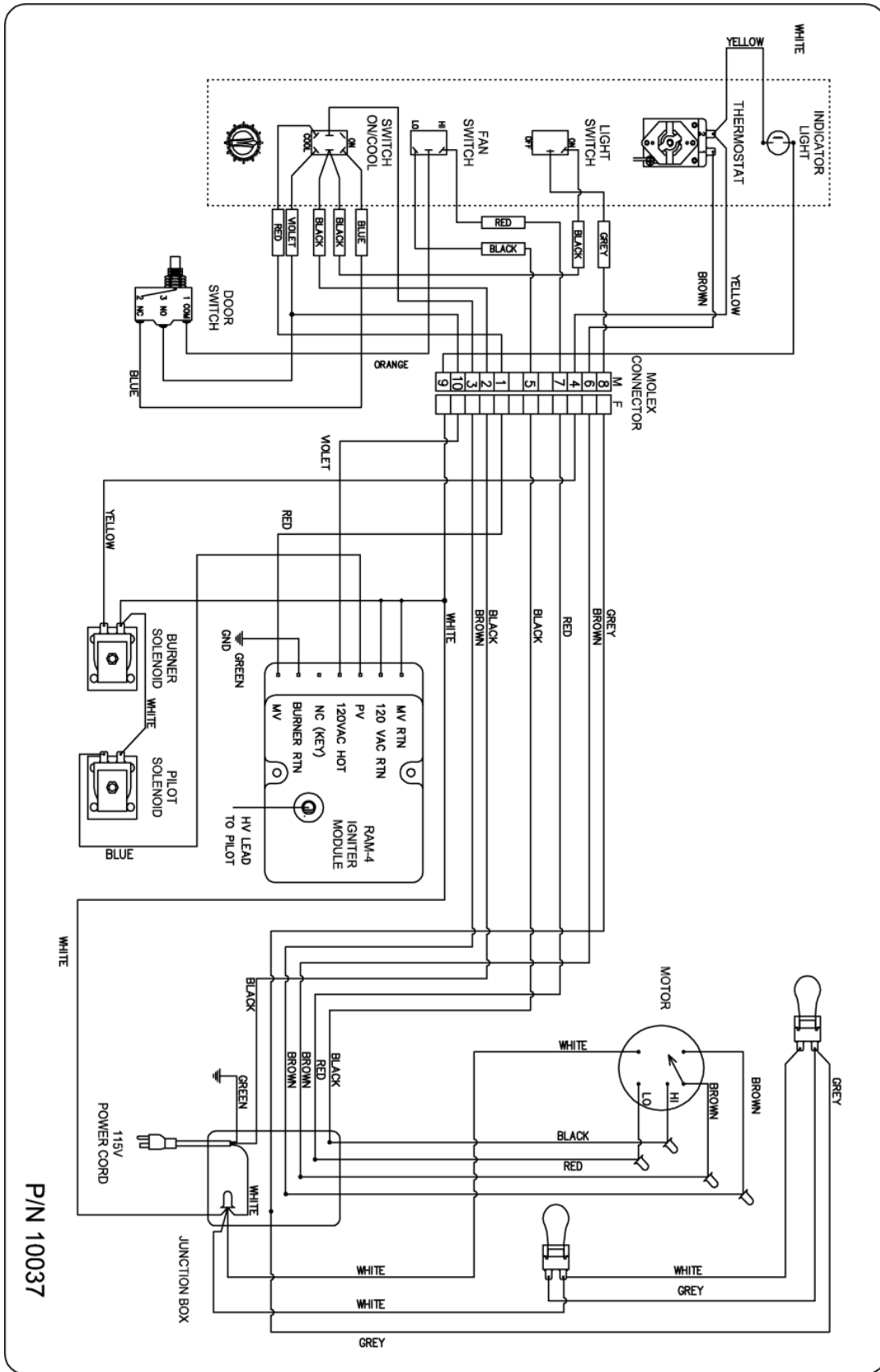
Check for Gas Leaks:

1. Remove the kick plate and the component cover at the rear of the oven
2. Check pilot tubing and burner tubing for leaks at the connectors with a soapy water solution.
3. Light the pilot as described above.
4. Turn the thermostat to any setting and the burner should light.
5. Check the burner orifice elbow connection downstream of the valve with a soapy water solution.
6. Check the burner visually for blue flame. There should be no yellow tips or soot. If yellow tipping occurs, call an authorized service person to adjust the burner air shutter.

Final Preparation:

On initial installation, turn the oven to 250 degrees and operate for about 1 hour, then reset the thermostat to its maximum and operate for another hour. This will drive off solvents remaining in the unit. At the end of this second hour, turn the thermostat OFF, open the door and set the switch to 'cool'. Oven should then be thoroughly washed using hot, soapy water before being used.

Wiring Diagram:



P/N 10037

ASSEMBLY

DO NOT MOUNT oven on a curb base. Use legs/casters provided. Adequate air space at the bottom and rear of the unit must be provided for proper venting of blower motor. DO NOT USE door to lift or move oven!!! All ovens must be installed on leg assembly or casters shipped with the unit. The leg/stand assembly parts or casters are shipped separately.

Caster Installation on Legs:

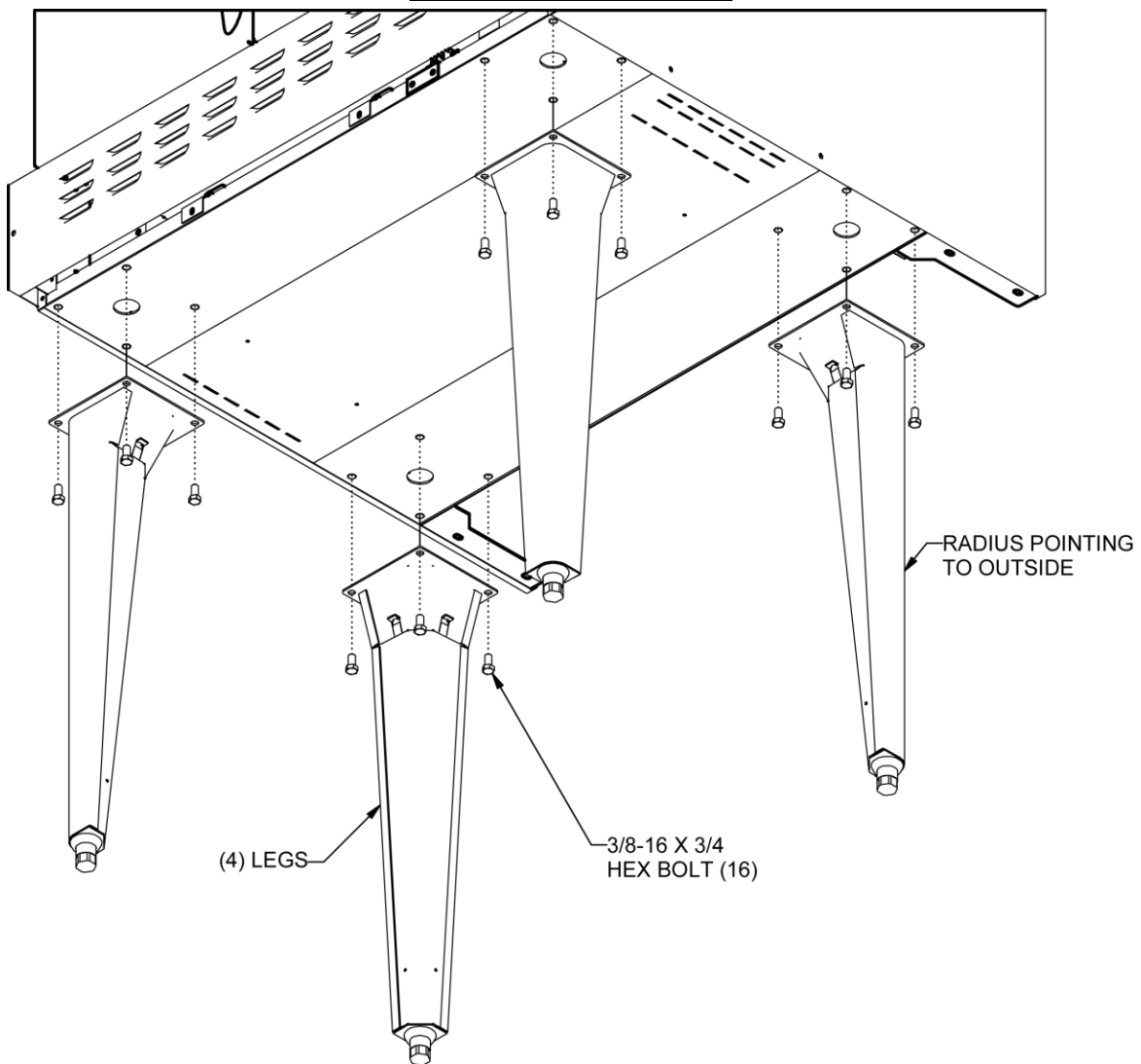
If casters are provided, match holes on the caster with holes on the oven bottom base and fasten with bolts provided. **NOTE: Front casters are locking type.**

Instructions for oven Leg (Stand) Assembly:

Assemble the leg assembly as follows: *(For 8100 & 8300 Models Only)*

1. Remove legs from package.
2. Line leg plate holes with holes at the bottom of the base.
3. Secure with (4) 3/8-16 bolts.

Figure 1, Stand Assembly

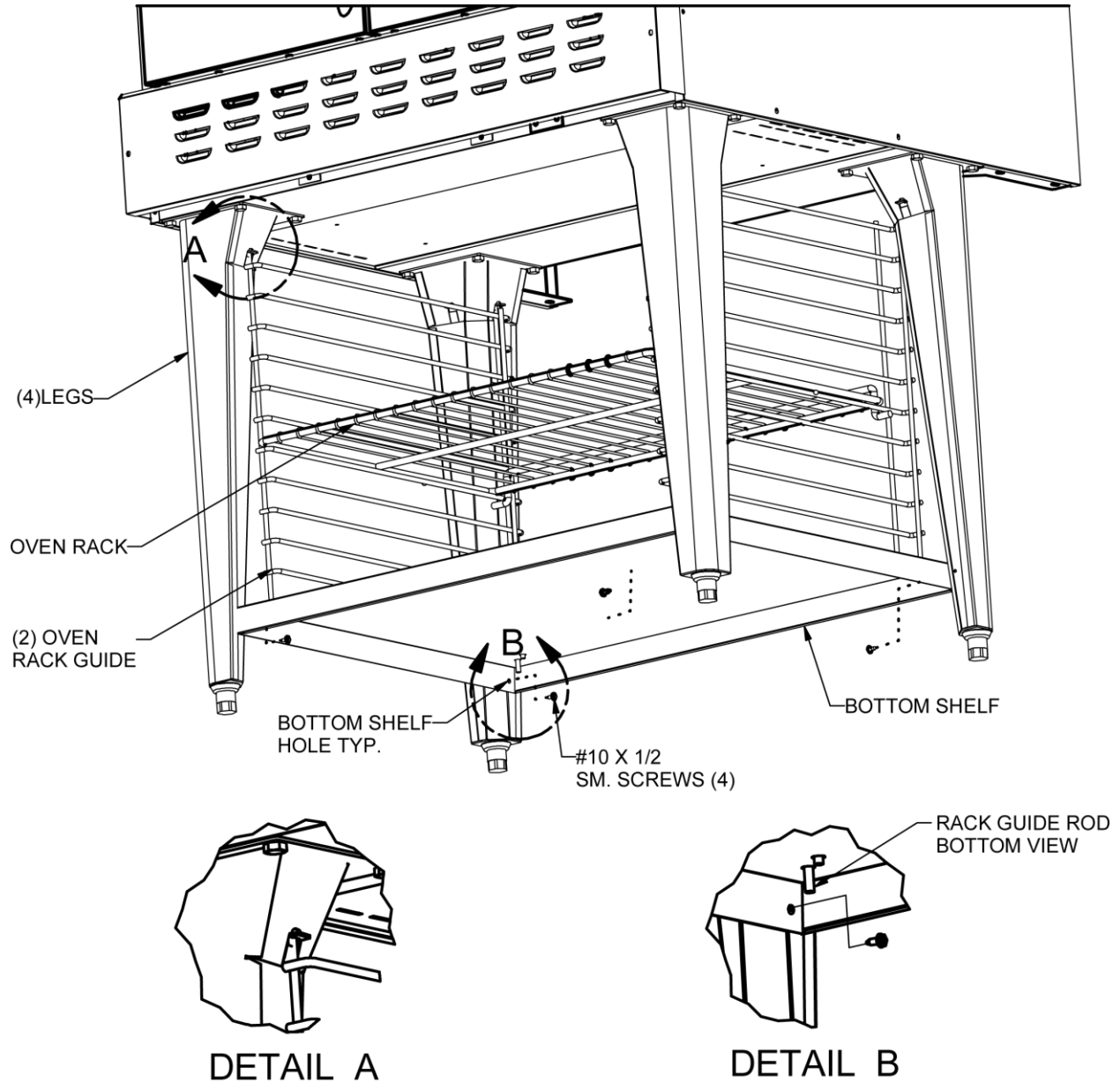


Instructions for Optional Bottom Shelf and Rack Guide Assembly:

Assemble as follows: (For 8100 & 8300 Models with Standard Leg Assembly already Installed)

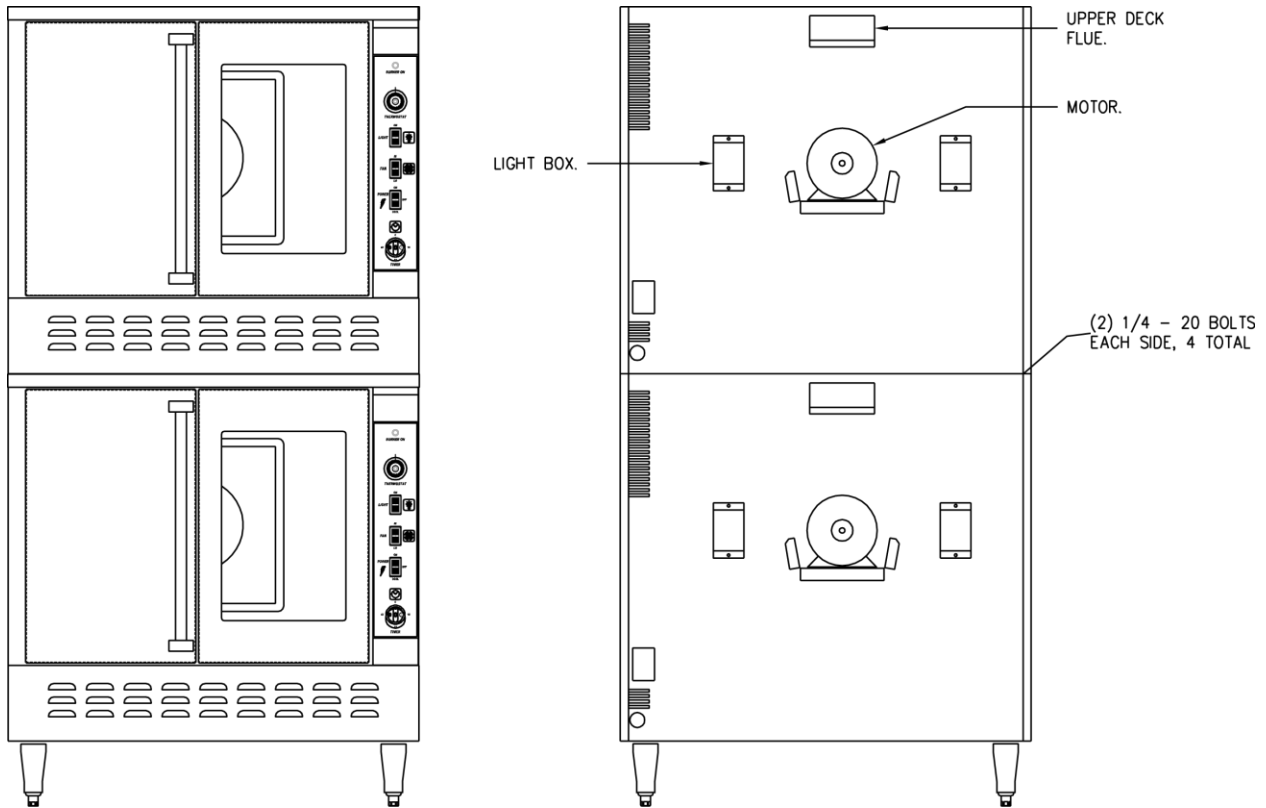
1. Line up bottom shelf hole with holes on the legs and secure with #10 x 1/2 SMS as shown on detail "B"
2. Fold up the inner tab about 90° on each leg using pliers. Fold as shown on detail "A"
3. Insert (Bottom Rack Assembly) on upper side and line up holes on (Bottom Shelf) See detail "A" and "B"

Figure 2, Optional Bottom Shelf and Rack Guide Assembly



Stacking Assembly

Figure 3, Stacked Models 8192 and 8392 Shown



Assembling Stacked Oven:

1. Match holes on the legs with oven bottom base and screw with bolts provided.
2. Set top oven on top of bottom oven.
3. Bolt down at rear and front as shown in (Figure 3). Remove top kick plate to access screwing the front bolts.
4. Assemble bottom flue extension (not shown).

Caster Installation on Stacked Ovens:

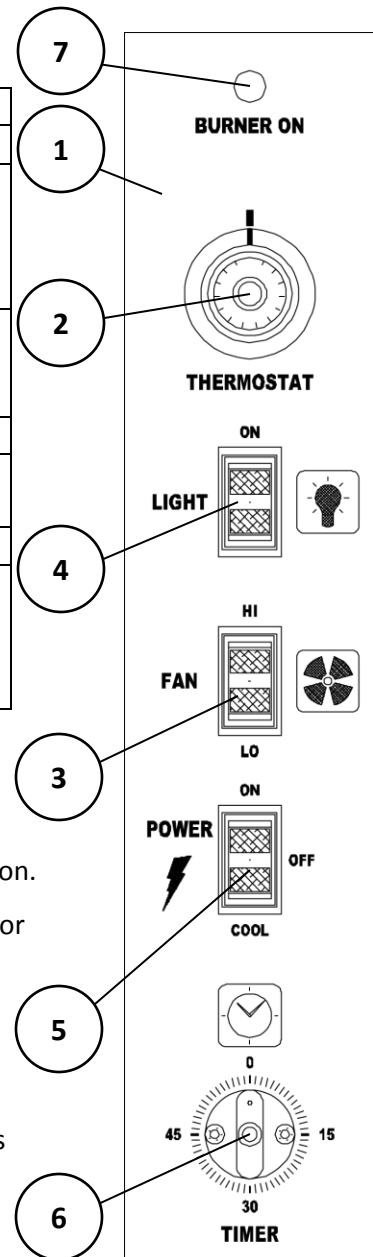
If casters are provided, match holes on the caster with holes on the oven bottom base and fasten with bolts provided. **NOTE:** Front casters are locking type.

OPERATION

Control Panel

ITEM	PART NO.	DESCRIPTION	FUNCTION	QTY.
1	93-5053	Lexan Decal	Easy to clean surface.	1
2	93-5037	Thermostat Control Knob	Regulates oven temperature controls heating element operation.	1
3	93-5039	Fan Switch	Two position fan switch. Controls fan speed either high or low.	1
4	93-5038	Light Switch	Momentary switch.	1
5	93-5040	Power Switch	Three position switch – on, off, cool down.	1
6	93-5041	Timer	60-minute timer.	1
7	93-5036	Burner Switch	Indicates when thermostat is calling for heat and the heat or burners are on.	1

1. Check that power is available to the oven
2. Arrange shelf positions according to the item to be cooked.
3. Close doors. Move fan switch to HIGH or LOW. Fan should come on.
4. Set thermostat dial to desired cooking temperature. Heat indicator light should come on
5. Allow oven to preheat for about 5-10 minutes. Preheating is complete.
6. Load oven. The load should be adjacent to the oven, so the doors will be open as short a time as possible.
7. Close doors. Set timer for desired cooking time.
8. Buzzer will sound at end of preset interval. Oven is ready to unload.
9. If oven temperature is to be lowered, set the thermostat to the desired temperature to cool interior. Press the cool down switch. The fan will continue to run with no heat.
10. This will help cool down the cooking compartment more rapidly.
11. For daily shutdown, place oven thermostat and power switch in OFF position. For extended shut- down, leave doors ajar as well.
12. To view product while cooking press the momentary light switch. (see item 4).



MAINTENANCE

Any piece of equipment works better and lasts longer when maintained properly. Cooking equipment is no exception. Your MARKET FORGE INDUSTRIES, INC. oven must be kept clean during the working day and thoroughly cleaned at the end of the day.

CAUTION: Never use Ammonia in an Oven that is warmer than room temperature and always have direct ventilation.

Daily Cleaning:

1. Remove the baking racks. Wash in hot soapy water, and replace after the rest of the oven is cleaned.
2. Scrape off any food particles with a nylon griddle scraper. Be very careful about scratching the porcelain finish on the oven liner panels.
3. Wash all the above with hot soapy water, then reassemble.
4. Baked on spills may be loosened and stubborn stains removed with ordinary household ammonia and scrubbing with a nylon pad in a cold oven only.
5. Do not allow spray type oven cleaners to come into contact with the temperature probe in the oven.
6. After cleaning the oven, rinse well with $\frac{1}{4}$ cup of vinegar to one quart of clear water solution to neutralize any caustic residue of the cleaning compound. Wipe dry.
7. To increase the life of the motor, follow these instructions:
 - a) Never run oven with motor off.
 - b) After you finish cooking and the oven is not to be used for more than 1/2 hour. Place the switch to the "COOL" position and open the door. When oven temperature is equal to room temperature turn unit off.

Periodic Cleaning:

Check the ventilation system periodically to see that nothing has fallen down into the exhaust vents. Lubricate the pivot pins of the oven door hinge. Use a multi-purpose lubricating oil sparingly so as to not drip oil needlessly.

Your appliance should be checked for safe and efficient operation at least once a year by qualified service personnel.

Cleaning Stainless Steel:

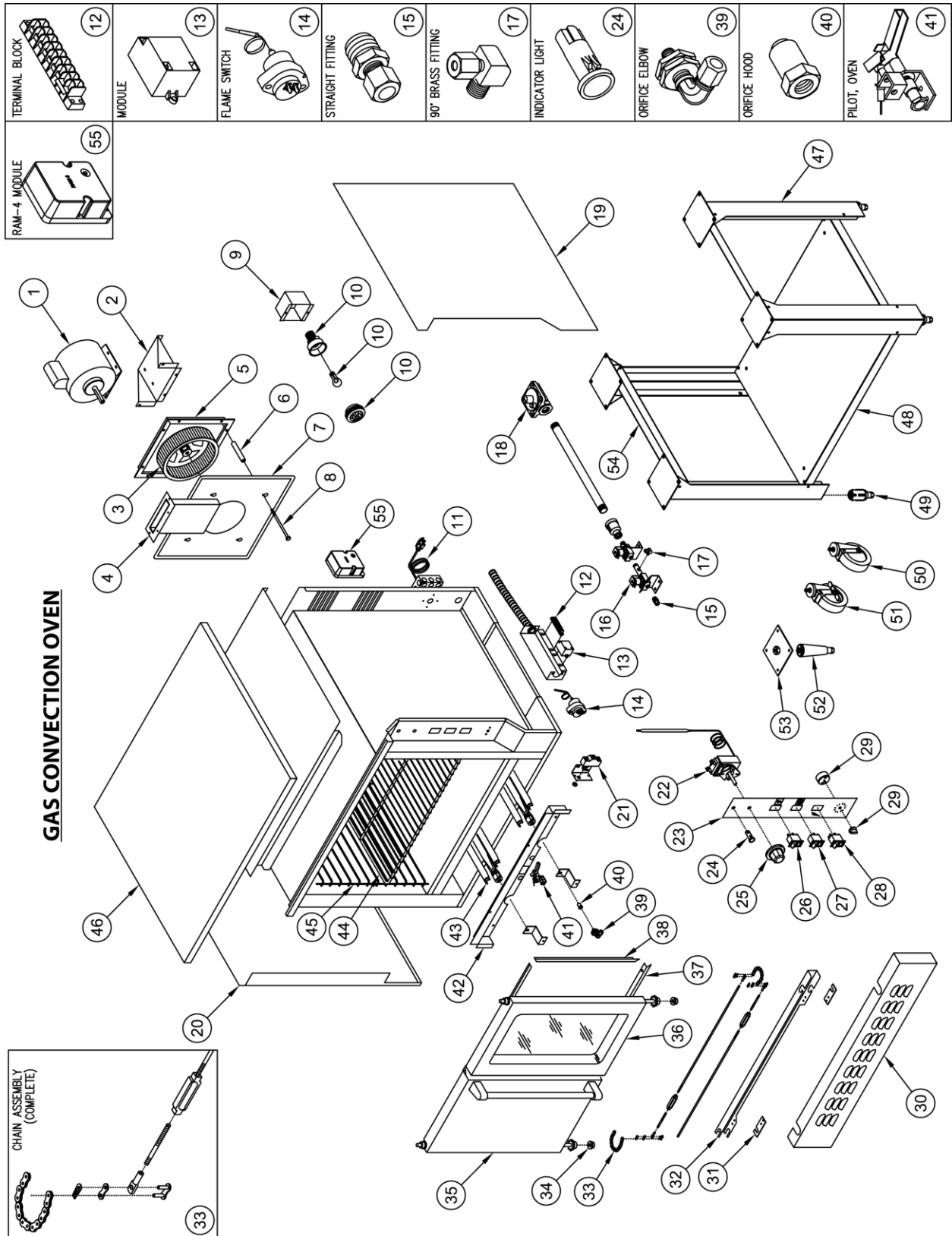
All stainless steel body parts should be wiped regularly with hot soapy water during the day and with a liquid cleaner designed for this material at the end of each day.

DO NOT USE steel wool, abrasive cloths, cleaners or powders to clean stainless surfaces! If it is necessary to scrape stainless steel to remove encrusted materials, soak in hot water to loosen the material; then use a wood or nylon scraper.

DO NOT USE a metal knife, spatula, or any other metal tool to scrape stainless steel. Scratches are almost impossible to remove.

ILLUSTRATED PARTS

Gas Convection Oven Exploded View



Gas Convection Oven Parts List

ITEM NO.	PART NO.	DESCRIPTION
1	93-5008	Motor
2	93-5009	Motor Bracket
3	93-5010	Blower
4	93-5011	Snorkel Tube Weld Assembly
5	93-5012	Motor Mount Weld Assembly
6	93-5013	Blower Spacer Tube
7	93-5041	Blower Baffle Cover
8	93-5015	Shoulder Bolt (1/4-20 x 4")
9	93-5016	Light Bulb Cover R/H
	93-5017	Light Bulb Cover L/H
10	93-5018	Light Bulb (<i>Complete Set</i>)
11	93-5019	Power Cord 6 Feet
12	93-5020	Terminal Block
13	93-5021	Spark Module
14	93-5022	Flame Switch
15	93-5023	Straight Fitting (3/8 CC x 3/8 NPT)
16	93-5024	Solenoid Valve
17	93-5025	Brass Fitting (1/4 CC x 1/8 NPT x 90°)
18	93-5026	Gas Pressure Regulator (Natural Gas)
	93-5027	Gas Pressure Regulator (Propane Gas)
19	93-5028	Side Panel – Right Access for 8300 & 8392 ^(RCOD)
	93-5029	Side Panel – Right Rear for 8300 & 8392 ^(RCOD)
	93-5030	Side Panel – Right Side for 8100 & 8192 ^(RCOS)
20	93-5031	Side Panel – Left Side for 8300 & 8392 ^(RCOD)
	93-5032	Side Panel – Left Side for 8100 & 8192 ^(RCOS)
21	93-5033	Door Switch
22	93-5034	Thermostat
23	93-5035	Control Panel Decal
24	93-5036	Indicator Light
25	93-5037	Thermostat Dial
26	93-5038	Switch, Momentary Oven Lights
27	93-5039	Switch, Oven Fan, High/Low
28	93-5040	Switch, Power – 3 Positions
29	93-5041	Timer – Knob & Manual Timer
30	93-5042	Kick Plate
31	93-5043	Bushing Holder (Door Lock-In Bracket)
32	93-5044	Channel Sprocket Support
33	93-5045	Chain Assembly (Complete Set)
34	93-5046	Bushing (1/2 I.D. x 5/8 O.D.)
35	93-5047	Door Assembly – Left Side
36	93-5048	Door Assembly – Right Side

ITEM NO.	PART NO.	DESCRIPTION
37	93-5048	Door Gasket (Top & Bottom)
38	93-5050	Door Gasket (Sides)
39	93-5051	Orifice Elbow (3/8 CC x 3/8-27)
40	93-5052	Orifice Hood #33 (Brass) Natural 40,000 BTU for 8300 & 8392 (RCOD)
	93-5053	Orifice Hood #49 (Brass) Propane 40,000 BTU for 8300 & 8392 (RCOD)
	93-5054	Orifice Hood #36 (Brass) Natural 35,000 BTU for 8100 & 8192 (RCOS)
	93-5055	Orifice Hood #50 (Brass) Propane 35,000 BTU for 8100 & 8192 (RCOS)
41	93-5056	Oven Pilot – Natural Gas
	93-5057	Oven Pilot – Propane Gas
42	93-5058	Oven Front Baffle
43	93-5059	“U” Burner – 40,000 BTU for 8300 & 8392 (RCOD)
	93-5060	“U” Burner – 35,000 BTU for 8100 & 8192 (RCOS)
44	93-5061	Oven Rack for 8300 & 8392 (RCOD)
	93-5062	Oven Rack for 8100 & 8192 (RCOS)
45	93-5063	Oven Rack Guide – Right Side 8300 & 8392 (RCOD)
	93-5064	Oven Rack Guide – Left Side 8300 & 8392 (RCOD)
	93-5065	Oven Rack Guides for 8100 & 8192 (RCOS)
46	93-5066	Oven Top Liner for 8300 & 8392 (RCOD)
	93-5067	Oven Top Liner for 8100 & 8192 (RCOS)
47	93-5068	Leg – Single Oven (Complete Set of 4)
48	93-5069	Bottom Shelf for 8300 (RCOD)
	93-5070	Bottom Shelf for 8100 (RCOS)
49	93-5071	Adjustable Bullet Feet (One Piece Only)
50	93-5072	Cater 5” w/out brake plate mounting for 8392 & 8192 Stacked Ovens
	93-5073	Caster w/brake stem mounting for 8392 & 8192 Stacked Ovens
51	93-5074	Cater 5” w/out brake plate mounting for 8300 & 8100 Single Ovens
	93-5075	Caster w/brake stem mounting for 8300 & 8100 Single Ovens
52	93-5076	6” Leg for Stacked Ovens Only
53	93-5077	Leg Plate – for 6” Leg Only
54	93-5078	Rack Guide, Upper Bracket
55	93-5079	RAM-4 Spark Module