

INSTALLATION & OPERATING MANUAL



Intertek

UL 197

MARSAL & SONS, INC.

ELECTRIC DECK OVENS

INTENDED FOR OTHER THAN HOUSEHOLD USE



Intertek

NSF/ANSI 4 2007

EDO 2136-1, EDO 42-1, EDO 57-1, EDO 42-3, EDO 57-3

FOR YOUR SAFETY

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

WARNING

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

WARNING

INITIAL HEATING OF OVEN MAY GENERATE SMOKE OR FUMES AND MUST BE DONE IN A WELL VENTILATED AREA. OVEREXPOSURE TO SMOKE OR FUMES MAY CAUSE NAUSEA OR DIZZINESS.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT REMOVE THIS COVER. NO USER-SERVICEABLE PARTS INSIDE. REPAIR SHOULD BE DONE BY AUTHORIZED PERSONNEL ONLY.

NOTE: ONLY PIZZA OR BREAD CAN HAVE DIRECT CONTACT WITH CERAMIC DECKS. ALL OTHER FOOD PRODUCTS MUST BE PLACED IN A PAN OR CONTAINER TO AVOID DIRECT CONTACT WITH CERAMIC DECKS.

THIS EQUIPMENT HAS BEEN ENGINEERED TO PROVIDE YOU WITH YEAR ROUND DEPENDABLE SERVICE WHEN USED ACCORDING TO THE INSTRUCTIONS IN THIS MANUAL AND STANDARD COMMERCIAL KITCHEN PRACTICES.

OVEN MUST BE KEPT CLEAR OF COMBUSTIBLES AT ALL TIMES!

THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE



INSTALLATION & OPERATING MANUAL

TABLE OF CONTENTS

I. INSTALLATION MANUAL

RECEIVING	2
LOCATION & MINIMUM CLEARANCES	2
INSTALLATION	2
STACKING	3
INSTALLATION OF DECKS	3
ELECTRICAL CONNECTION	4
FIELD CONNECTIONS	4
INITIAL START UP	5

II. OPERATING MANUAL

GENERAL BAKING	5
GENERAL BAKING TIPS	6
CLEANING	6
SERVICE & TROUBLESHOOTING	7
WIRING DIAGRAMS	8
WARRANTY	13

INSTALLATION MANUAL

MODELS COVERED

MODEL	NUMBER OF ELEMENTS	TOTAL KW	PHASE
EDO 57-1	6	12 KW (208-240 VAC)	1
EDO 57-1	6	12 KW (208-240 VAC)	3
EDO 42-1	4	8 KW (208-240 VAC)	1
EDO 42-3	4	8 KW (208-240 VAC)	3
EDO 2136-1	2	4 KW (208-240 VAC)	1

RECEIVING

Read the notice on the outside carton regarding damage in transit. **“Concealed Damage”**, damage discovered after opening the crate(s), must be reported immediately to the carrier. The carrier will perform an inspection of the damage and furnish forms for the consignee’s claim against the carrier. Retain all packing material including outer carton until the inspection has been completed.

LOCATION & MINIMUM CLEARANCES

Adequate air space must be provided for proper venting of the controls and provisions must be made for venting of the cooking vapors. The Oven must be installed in a well-ventilated area and following minimum clearances must be maintained at all times:

- **A 3” minimum air space MUST be left on the LEFT SIDE to allow adequate ventilation for the cooling of the controls. Access must also be available for service on the left side. Failure to do so will void the warranty.**
- Ovens can be installed with “Zero” clearances (back and right side only) from combustible and non-combustible materials.
- The ovens may be installed on combustible Flooring if mounted on the Legs provided.
- Keep the area around your oven free and clear of all combustible materials.

INSTALLATION

Place the oven and parts as close to the area of final installation before uncrating. Your ovens are packed sitting on their bottom. The base is shipped upside down on the bottom oven, if is a stacked unit, or just upside down on a single unit. The ovens may be flipped on their back to get it through a smaller doorway. The pallet may be left under the oven for convenience in further handling. Unpack carefully to avoid damage to the oven. If concealed damage is discovered, follow the instructions detailed in section 1 above.

1. Set the base in the approximate spot that the ovens will be installed. The front of the base is marked as the front. Level the oven base with the floor.
2. Using sufficient help, or proper lifting equipment, lift the bottom oven or single oven, on top of the base.
3. Align the front corners of the oven with the front corners of the base. Locate the four holes in the base with the same holes in the bottom of the oven and secure both with the four 1/3 x 20 bolts supplied with these instructions.

STACKING

These ovens can be stacked up to three high. Each unit is built exactly the same, so it does not matter in what order they are stacked.

Once the unit with the legs is in place with the proper lifting equipment gently place the next oven on top of the first one and line up the back and sides with each other. In case of a third unit, gently place the oven on top of the second one and line up the back and sides.

THE SEAM BETWEEN EACH OVE SHOULD NOT EXCEED 1/8". USING A NSF APPROVED SILICONE SEALANT (NOT INCLUDED WITH OVEN) SEAL THE SEAMS BETWEEN EACH OVEN. IN ORDER TO COMPLY WITH NSF REQUIREMENTS, IT IS THE INSTALLER'S RESPONSIBILITY TO VERIFY THAT THE CLEARANCE BETWEEN THE OVENS IS LESS THAN 1/8" BEFORE APPLYING THE SEALANT AND TO USE NSF APPROVED SILICONE SEALANT.

INSTALLATION OF DECKS

Stone Decks for Pizza Application are shipped in a separate carton. Two are provided with each oven (one in EDO 2136 model). THIS MATERIAL IS HEAVY AND FRAGILE AND SHOULD BE HANDLED CAREFULLY.

1. Slide one slab into the baking chamber on the left side, lowering the front end carefully to avoid chipping of the deck corners; then push tightly against the left oven wall.
2. Repeat the above for the second slab, pushing it as tightly as possible against the other slab in order to prevent any gaps.

ELECTRICAL CONNECTION

GENERAL INSTRUCTIONS

1. Only a licensed electrician should make the electrical connections.
2. Make sure electrical supply corresponds with that specified on the rating plate.
3. Only use copper conductors rated at 90° Celsius suitably sized for the electric current drawn.
4. All pole disconnect(s) must be provided by the installer.
5. When installed, unit must be electrically grounded in accordance with the local codes and/or the latest edition of the National Electric Code ANSI/NFPA No. 70 in USA or Canadian Electrical Code, CSA Standard C22.1, Part 1 in Canada.

FIELD CONNECTIONS

1. Feed power cable (supplied by the customer) through the access hole at the left side or at the back of the oven and pull the cable to the front of the oven.
2. Following the appropriate wiring diagram conforming to the rating plate, connect the power supply leads to the field wiring terminal block. The ground wire should be connected to the grounding lug.
3. For single phase 2-wire or three phase 3-wire supplies, the controlling branch circuit is designed to operate at 208-240 volts AC and is prewired at the factory between L1 and L2 of the field wiring terminal block.
4. For three phase 4-wire 230/400 Volts AC 50hz supplies, the controlling branch circuit is designed to operate at 230 volts AC and is prewired at the factory between L1 and N of the field wiring terminal block.
5. Make sure all connections are tight, then replace the access cover(s) and control panel(s).

FIELD WIRING AND CIRCUIT BREAKER RECOMMENDATIONS

MODEL	RECOMMENDED FIELD WIRE SIZE	RECOMMENDED CIRCUIT BREAKER SIZE
EDO 57-1	6 AWG	60 AMP
EDO 57-3	8 AWG	40 AMP
EDO 42-1	8 AWG	40 AMP
EDO 42-3 **This model is unbalanced	8 AWG	30 AMP
EDO 2136-1	10 AWG	20 AMP

INITIAL STARTUP

After installation, your oven will need a few hours to evaporate the moisture in the deck and in the insulation, and to burn off the thin coat of oil on the sheet metal parts.

THE FOLLOWING STEPS MUST BE COMPLETED BEFORE YOUR NEW OVEN IS READY FOR USE.

1. Place the oven in a well ventilated area in order to deal with the ensuing smoke and smell.
2. Open the oven door and make sure the oven cavity is empty and that the decks are properly installed
3. Close the oven door and set both controls on High. Set the temperature knob to 300° Fahrenheit (150° Celsius) for about one hour.

IT IS HIGHLY RECOMMENDED TO PROP THE DOOR OPEN ABOUT ONE INCH WITH A PIECE OF WOOD TO AID IN THE ESCAPING OF THE OUTGASSES. IF NOT, THE OUTGASSES MAY STAIN THE AREA AROUND THE DOOR OPENING.

4. After that, close the door and increase the temperature 100° Fahrenheit per hour to 600° Fahrenheit. This procedure will remove most of the moisture and help insure good bake results.

OPERATING INSTRUCTIONS

GENERAL BAKING

NOTE: ONLY PIZZA AND BREAD PRODUCTS CAN HAVE DIRECT CONTACT WITH THE CERAMIC DECK. ALL OTHER FOOD PRODUCTS MUST BE PLACED IN A METAL PAN OR PORCELAIN DISH TO AVOID DIRECT CONTACT WITH THE CERAMIC DECK.

Pizza can be baked on the deck, on screen or in a pan. When you determine the right combination of method, ingredients and temperature that results in the correct bake for your crust, sauce and cheese combination and you customer's taste, mark and keep it.

Deck baking refers to baking pizza directly on the deck. Generally it is a thin product that requires a temperature of at least 550° Fahrenheit (290° Celsius).

Screen baking refers to baking pizza on a screen. The screen lifts the pizza off the deck. The screen may be removed near the end of the bake time to give the bottom of the pizza a crispier crust and darker color. Baking temperatures range from 500° Fahrenheit (260° Celsius) to 550° Fahrenheit (290° Celsius).

Pan baking refers to baking pizza in pans. Crusts can be thick or thin and toppings range from light to heavy. Baking temperatures for pan baking range from 450° Fahrenheit (235° Celsius) to 500° Fahrenheit (260° Celsius).

GENERAL BAKING TIPS

- At day's end, turn the thermostat off, leaving the TOP and BOTTOM heat controls set for the next day's operation
- In the morning, preheat for one hour at 50° Fahrenheit (30° Celsius) lower than your baking temperature. Set TOP and BOTTOM heat controls for a faster recovery.
- 15 to 20 minutes before loading the oven, raise the thermostat setting to your baking temperature and make sure the TOP and BOTTOM control switches are set correctly for the product you intend to bake.

FOR EXAMPLE: 6 ON TOP CONTROL AND 3 ON BOTTOM CONTROL. IT IS RECOMMENDED TO NEVER COOK WITH EITHER CONTROL SET ON HIGH. LEAVE THE TOP CONTROL ON 6 AND ADJUST THE BOTTOM HEAT UP AND DOWN TO GET DESIRED BAKE.

- When the oven has not been used for a while, there is a tendency for the bake deck to get very hot. Consequently, when it is slow and the oven is idling, set the thermostat at least 50° Fahrenheit (30° Celsius) lower than your normal baking temperature. Then when you put in the pizza, increase the thermostat to the normal setting, providing the quick extra top heat required balancing with the bottom heat. At the end of the bake, the thermostat should then be turned down to the lower setting before the deck gets too hot again.
- Frequently scrape and brush off decks to remove burnt residue which can cause an "off" flavor and an increase in bake time.
- Heavily topped pizza or pan pizza require lower bake temperatures and longer bake times as compared to a regular thin crust pizza with light toppings.
- Any type of pan or screen may be used in this oven. When choosing pans, be sure to pick a pan which is closest in height to your product.

NOTE: DARK COLORED PANS AND SCREENS TRANSFER HEAT BETTER THAN LIGHT COLORED ALUMINUM PANS OR SCREENS. THE LATTER ONES THEREFORE MUST BE SEASONED BEFORE USE. TO DO THIS, APPLY A HEAVY COATING OF COOKING OIL INSIDE AND OUT AND BAKE IN OVEN AT 500 DEGREES° FAHRENHEIT (260° CELSIUS) FOR ABOUT ONE HOUR OR UNTIL ALL SMOKE HAS GONE.

CLEANING THE OVEN

OVEN EXTERIOR: CLEAN ONLY WHEN THE OVEN IS COLD!

- Deposits of baked-on splatter and grease, or discoloration may be removed with a stainless steel cleaner or by using any commercial cleaner recommended for stainless steel. Always rub with the grains and apply very light pressure. Rinse well.

FIBRAMENT DECKS: HEAVY AND FRAGILE! HANDLE WITH CARE!

- The baking decks should be cleaned by using a long-handled scraper and stiff wire brush. At the end of each day, turn the thermostat up to its maximum setting and let the oven sit at that temperature for a least a half hour. This will burn off the food spilled onto the baking deck during the day's production and turn it to ash. This ash can then be brushed off the next day before turning the oven on.
- The baking decks should be scraped and brushed during the day also to keep them clean. To remove excessive crumbs or carbon, the baking decks and the oven cavity may be vacuumed when the oven is cold.

SERVICE & TROUBLESHOOTING

The ovens are designed to be as trouble free as possible. Keeping the oven clean, *especially the cooling fan vent holes*, is about all that is normally required. However, if your oven stops operating, check the following:

1. THE FAN AREA: If the unit stops heating and the thermostat light doesn't go on when the temperature is increased, but the fan is still running, then the oven is in an overheated state. The Hi-limit safety has tripped. Once the oven control area has cooled, then the oven will turn back on. However, the reason for this issue is probably because the fan area is clogged with grease and dust. Be sure to clean this area regularly.
2. THE THERMOSTAT: Check to see if the set temperature has been reached and that the thermostat has turned off the power to the heat control switches, indicator lamp, relays, and heating elements. The light will go back on when the oven calls for heat.
3. THE INFINITE TOP AND BOTTOM HEAT CONTROL SWITCHES: Check to see if these are ON. They must be in a set position, rather than "Off", for the relays and the heating elements to operate.
4. THE POWER SUPPLY FUSES/BREAKERS: Check to see if these are blown or have tripped. Check circuit breakers first. **FUSES MUST BE CHECKED BY A TRAINED TECHNICIAN. FUSES ARE NOT COVERED BY WARRANTY.**

If the oven still does not operate, disconnect the power supply to the unit by turning off the main switch, and then contact the factory, factory representative, or an authorized service agency at 1 (800) 983-9027

ALL SERVICING SHOULD BE PERFORMED BY A FACTORY AUTHORIZED TECHNICIAN ONLY.