



**INSTALLATION & OPERATION MANUAL
ELECTRIC CONVECTION OVEN FOR MODELS:
IRECO-1-208, IRECO-1-240**

Iron Range Company
801 A Technology Way
Libertyville, IL 60048

**FOR WARRANTY SERVICE CALL:
866-359-7378**



⚠ WARNING



This manual contains important information regarding your Iron Range Co unit. Please read the manual thoroughly prior to equipment set up, operation, and maintenance. Failure to comply with regular maintenance guidelines outlined in the manual may void the warranty. Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury or death.

MUST READ!

SAFETY PRECAUTIONS

Before installing and operating this equipment, be sure everyone involved in its operation is fully trained and aware of precautions. Accidents and problems can be caused by failure to follow fundamental rules and precautions.

The following symbols, found throughout this manual, alert you to potentially dangerous conditions for the operator, service personnel, or to the equipment.

	This symbol, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of fire or electric shock to persons.
	This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

 **FOR YOUR SAFETY TO AVOID SERIOUS PERSONAL INJURY AND PROPERTY DAMAGE:**

- **ALWAYS** install equipment in a work area with adequate light and space.
- **ONLY** operate on a solid, level, nonskid surface that is nonflammable and away from sinks and water hazards.
- **NEVER** bypass, alter, or modify this equipment in any way from its original condition. Doing so may create hazards and will void the product’s warranty.
- For your safety, please keep the machine away from any liquid, gas, or other substance, which is flammable or explosive.
- **Any self-modification, wrong installation, improper adjustment, or maintenance** can lead to property loss or casualty. Please contact the manufacturer for any adjustment or maintenance, and have the work done by a trained & qualified person.
- **This appliance should not be operated alone** by those who have physiological, perceptual, or mental disabilities or those who have insufficient experience or knowledge (including children). Only with sufficient supervision for the sake of personal safety, as well as proper instructions & guidance, those mentioned before may operate this device.
- **Keep** children away from the device.
- **Maintain a 2” clearance from the back of the motor for proper air flow. If the back of the motor is blocked or restricted air flow, the oven motor will fail. This is not a warranty issue.**
- **Clearance from combustibles:** Maintain a 2” clearance on the left & right side from combustibles. And a 6” clearance on the right side from high heat producing product(s). Eighteen (18) inch clearance on the right side is recommended for serviceability.

Keep appliance area free and clear of combustibles.

Retain this manual for future reference.

Congratulations! You have purchased one of the finest pieces of commercial cooking equipment in the market. You will find that your new equipment, like all Iron Range equipment, has been designed and manufactured to meet the toughest standards in the industry. Each piece of Iron Range equipment is carefully engineered, and designs are verified through laboratory tests and field installations. With proper care and maintenance, you will experience years of reliable, trouble-free operation. For the best results, read this manual carefully. All the information and guidelines of this user’s manual comply with certain applicable regulations, which come from our long-term accumulated knowledge and experience, as well as current project development situations. Should you have any questions, please don’t hesitate to contact us by calling the number below or going to our website www.ironrange.co

Please post or retain this document in a known location close to the device for reference for any user. Have each operator read this manual before carrying out and action on this device, especially when starting.

Iron Range declines any responsibility in the event users do not follow the instructions or guidelines stated herein.

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Read these instructions carefully before attempting installation. Installation and initial startup should be performed by a qualified installer. Unless the installation instructions for this product are followed by a qualified service technician (a person experienced in and knowledgeable of the installation of commercial gas and/or electric cooking equipment) then the terms and conditions on the Manufacturer’s Limited Warranty will be rendered void and no warranty of any kind shall apply.

SPECIFICATIONS

Convection Oven Voltage

⚠ CAUTION This unit is factory supplied 208 VAC OR 240VAC. This unit can be converted from three (3) phase to single (1) phase by changing the wiring on the terminal block. (See wire diagram on page 11 & 12)

⚠ WARNING In the United States, install the oven in accordance with: 1) State and local codes; 2) National Electrical Code, NFPA-70 (latest edition) and 3) NFPA Standard #96, Vapor Removal from Cooking Equipment (latest edition), available from National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

In Canada, install the oven in accordance with: 1) Local codes; 2) Canadian Electrical Code, CSA Standard C22.2 No. 1 (latest edition) and 3) Canadian Standard for Commercial Cooking Equipment CSA Standard C22.2 No.109 (latest edition).

These models are designed, built, and sold for commercial use only.

Not suitable for residential or non-commercial installation.

SPECIFICATIONS

Model	Rack	Extenal			Interal Oven			Total KW's	AMP&Phase			Voltage	Crated Wegith	
		W	D	H	W	D	H		Single Phase	Three Phase				
IRECO-1-208	5	38	39.4	54.85	28.5	21.5	20	11	53	32	29	32	208VAC	579
IRECO-1-240	5	38	39.4	54.85	28.5	21.5	20	10.1-11.9	50	30	27	30	220-240VAC	579

***Rear Wall Clearance from back of motor: TWO INCHES (2”) MINIMUM,**

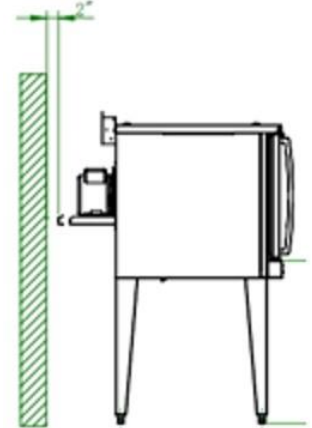
UNPACKING

Unpack the Electric Convection Oven immediately after receipt. Remove the Convection Oven from the crate; remove all packaging on and surrounding the unit and be certain to remove all protective plastics and residues from all surfaces. Make sure that all parts provided are located. Equipment must have legs and/or casters properly installed before use. Before using this equipment, it must be cleaned and dried thoroughly.

INSTALLATION

NOTE: It is vital that the purchaser of this equipment posts this manual in a prominent location for instructions to be followed if the user has questions on operations.

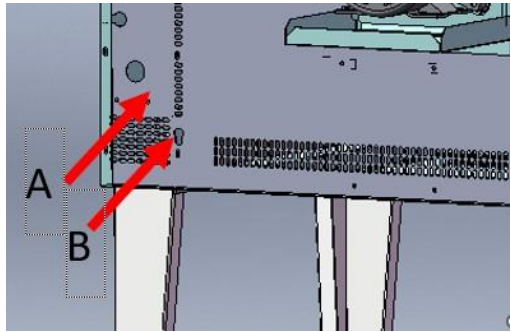
1. Read this manual thoroughly before installation and operation. DO NOT proceed with installation and operation if you have any questions or do not understand anything in this manual. Contact your local representative or Iron Range Company first.
2. Select a location for the Electric Convection Oven that has a level, solid, non-skid surface that is nonflammable and away from water hazards or sinks and is in a well-lighted work area away from children and visitors.
3. This equipment is recommended to be installed under proper ventilation as required by local code. ***NOTICE** Local codes regarding installation and ventilation vary greatly by area. The National Fire Protection Association states in its NFPA 96 latest edition (see NFPA page at the beginning of this manual) that local codes are “authority having jurisdiction” when it comes to requirements for installation of equipment. Therefore, the installation should comply with all local codes.
4. Noncombustible clearances: 2” sides (152 mm), 2” rear (152 mm), 6” floor (152 mm).
5. Do not obstruct the flow ventilation air under the unit by the legs or behind the unit by the flue. A minimum of two-inch (2”) clearance from the motor mounting plate is required.
6. There must be adequate clearance for the removal of the front and right-side panel.
7. Do not locate the oven adjacent to any high heat or grease-producing piece of equipment, such as a range top, griddle, broiler, fryer, etc., that could allow radiant heat to raise the exterior temperature of the oven above 130°F. **DO NOT MOUNT OTHER EQUIPMENT ABOVE THIS OVEN.**
8. Iron Range requires the installation to be performed according to the local and national electrical codes.



9. Attach each leg, to each corner of the oven and securely tighten. Legs must be installed to adequately provide proper ventilation to the unit. Install casters into the legs as shown into the permanently fastened adapter on the leg. The insert at the bottom of the leg must be replaced for this installation.



10. A restraining device is required for all appliances on casters. This is to limit the distance being pulled away from location and not to disconnect or add strain to the electrical connection, see D below. This device should be connected to a rigid surface like a

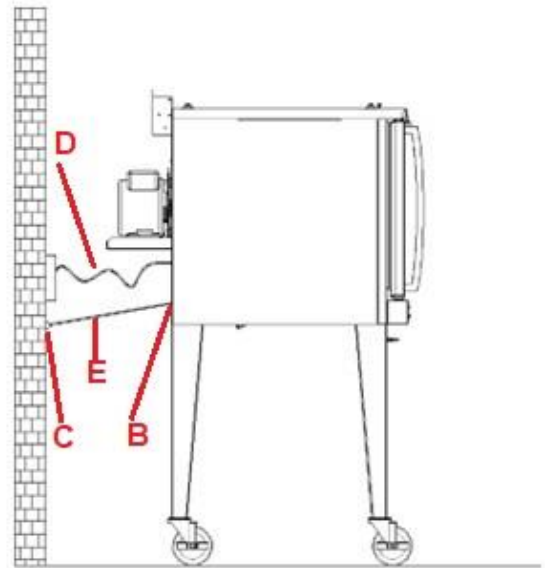


wall
or
floor,

see below C. (Do not connect to a gas line or electrical conduit as this will cause damage and harm.) The fixed length is no more than 4/5's of the electrical power cord, see below D. Iron Range does not provide the limiting restraint, it is to be supplied by others.

- A – Oven Back
 - B – Restraining Device Connection Point
 - C – Wall or Floor
 - D – Power Cord
 - E – Restraining device
- Instruction for Stacking Two Ovens**

If two ovens are needed, they can be stacked together. During the stacking, replace the long leg with the 6" leg or caster as indicated.



NOTE: The stacked ovens are required to be installed with legs or casters. Installation without legs or casters will void the warranty of the product.

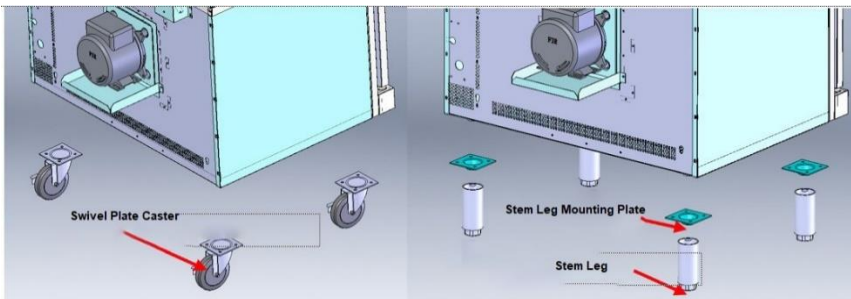
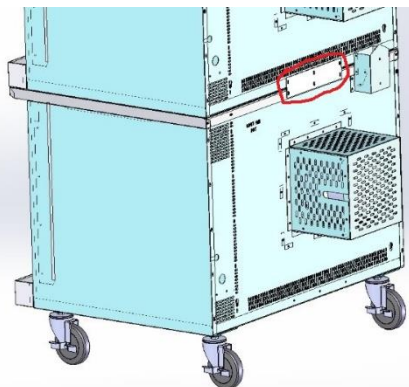


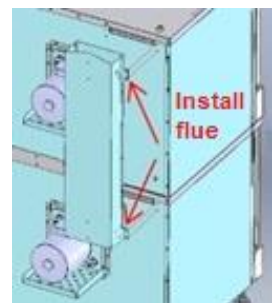
Fig.3 below in Figure 3.

For leg or caster installation please refer to the drawing



Install the banking strip provided in the stacking kit to secure the top oven to the bottom oven as seen on left.

Install the double deck flue as shown on the right.



ELECTRICAL CONNECTIONS

Before making any electrical connections, check the following:

- Voltage supply matches the voltage input on the data tag. Plugging into the incorrect voltage can damage your product and void the product warranty.
- Check to be sure the wire gauge is of proper size for the length and amperage required by the oven's electrical characteristics.
- Be sure to use a dedicated circuit breaker for each oven, and that the circuit breaker is sized according to the amperage used by the oven.
- Ground. Be sure there is a good ground connection.
- If the oven is installed on casters, you will be required to install strain-relief, per local and national electrical codes.

Exhaust Canopy: Cooking appliances inherently create a good deal of heat and smoke and should be installed under an efficient exhaust hood with flameproof filters. Please refer to your local codes for distances from floor to exhaust canopy for proper ventilation.

NOTE: Smoke appearing on initial use of the appliance is normal. This is a result of the oil in the manufacturing process that is burning off. This will occur for several minutes during the first use or seasoning process.

⚠️ WARNING

The appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, NFPA 70, or the Canadian Electrical Code, CSA C22.2

COMMISSIONING or START - UP: Commissioning or Start Up of your new Convection Oven is of the utmost importance. Commissioning is the thorough check by a qualified service provider. This is to ensure that the installation and function of your new convection oven is working properly and efficiently. Please contact your Iron Range representative for details and information.

⚠️ FIRE HAZARD

Do not install or use without legs or casters.
Use of this equipment without legs can cause the appliance to overheat and cause a fire.

⚠️

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instruction thoroughly before installing or servicing this equipment.

⚠️ FIRE and INJURY or DEATH HAZARD

Injuries or death can occur if this equipment is not used properly. To reduce risk of injury or death:

- Keep the appliance area free and clear from combustibles.
- Do not obstruct the flow of ventilation air.
- Do not spray controls or the outside of the appliance with liquids or cleaning agents.
- Let hot appliance cool before cleaning or moving.
- The appliance should only be used in a flat, level position.
- Do not operate unattended.

⚠️

FIRE, INJURY or DEATH HAZARD

This equipment must be installed by a qualified installer in accordance with all federal, state, and local codes. Failure to install this equipment properly can result in injury or death.

IMPORTANT SAFEGUARDS AND SAFETY INSTRUCTIONS



When using commercial cooking equipment, basic safety precautions should always be followed, including the following:

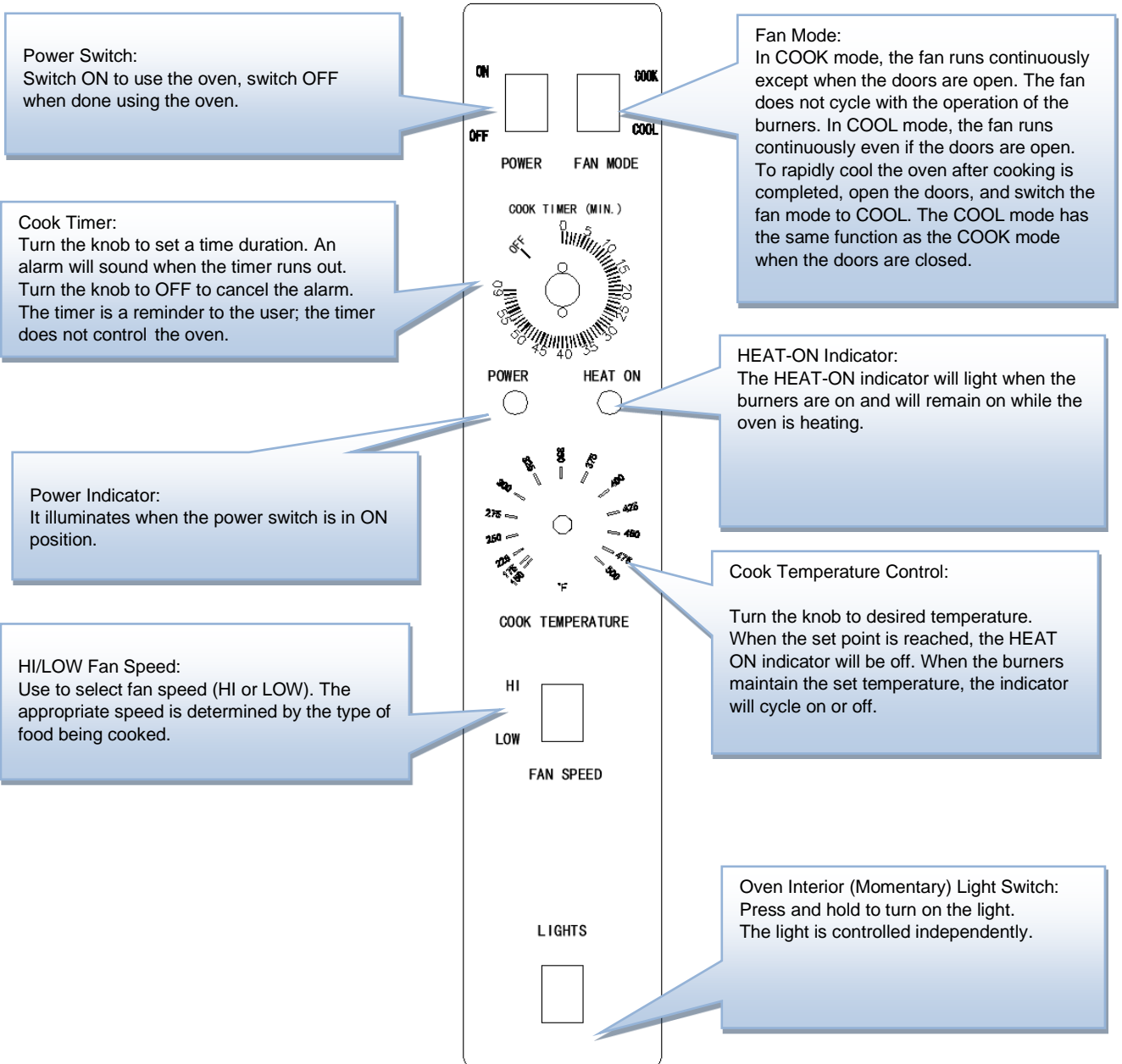
The Convection Oven outside surfaces may become HOT after use. Use caution when touching the unit.

- Never directly touch the cooking surface while the Convection Oven is on.
- Always turn off the unit when not in use, servicing or adjusting any parts or attachments, and before cleaning.
- Never leave the Convection Oven to operate overnight unattended.
- Do not operate any equipment with damaged, kinked, or nicked insulation exposing bare wires. Turn off the power supply immediately and call your electrician. The external wiring is not part of the oven. If the oven has been dropped or damaged in any manner call for service.
- The use of attachments not recommended or sold by the manufacture may cause fire, injury or even death.
- **DO NOT USE OUTDOORS.**
- Do not use this equipment for any use other than the use intended by the manufacturer.
- Never use the Convection Oven as a heating source.
- The convection oven does not contain **any** user-serviceable parts. A dealer or recommended qualified service technician should carry out repairs. Do not remove any components or service panels on this product.
- Never bypass, alter, modify, or attach any unauthorized parts to this equipment. Doing so may create a hazard and will void the warranty.
- We take every consideration in the manufacturing process to ensure that all products are safe. Steel cutting procedures used to manufacture these items result in sharp edges. These sharp edges are removed to the best of our ability; however, we insist the operator take care when in contact with this piece of equipment.
- Always keep hands, hair, and clothing away from the heating source.

OPERATING INSTRUCTIONS

Explanation Of Controls

A convection oven is a different type of oven that offers many features and advantages to food service operation. The additional capabilities and features of the convection oven require some learning to those that have not experienced using a convection oven. However, the operation of the oven is not difficult to understand or control once you have some practice. See the controls in the following set of explanations:



Operations

Turn the oven ON and select the cooking temperature. Two additional controls are used to control the fan (as described below). The timer is a reminder to you of when to remove food from the oven. The timer does not control the temperature of the oven.

To COOK:

1. Turn the oven ON using the Power Switch at the top of the control panel.
2. Select the desired fan speed using the Fan Speed switch. The appropriate fan speed (HI or LOW) depends on the type of food being cooked.
3. Switch the Fan Mode switch to COOK. The fan will run continuously when the oven doors are closed (the fan does not cycle on and off with the burners). (If this switch is set to COOL, the only difference is that the fan will continue to run when the oven doors are open.)
4. Set the cooking temperature by turning the Cook Temperature Control until the indicator mark on the knob is pointed to desired cooking temperature. The HEAT ON indicator will light when the burners are on and will remain on while the oven preheats.
5. Wait until the HEAT ON indicator has come on and gone out three times. At that time the oven will have reached the set cooking temperature and is properly pre-heated.
6. Open the oven doors, load the product into the oven, and close the doors. (For best results load bottom to top, and unload top to bottom.)
7. You can use the Cook Timer as a reminder of when to remove the load from the oven. If so desired, turn the Cook Timer knob until the indicator mark points to the desired cooking time (up to 55 minutes). The timer knob will rotate counterclockwise as the timer runs down, indicating how much time remains. You can turn the knob while cooking to increase or decrease the remaining time. When the timer runs out, a buzzer will sound for a short time, then turn itself off. (To immediately silence the buzzer, turn the Cook Timer knob to the OFF position.) The timer is a reminder to you; the timer does not control the oven. If you open the oven doors, the burners and fan will shut off until the doors are closed. However, the timer will continue running even if the doors are open.
For ovens that are equipped with an oven interior light, to turn on the light, press and hold the switch located at the bottom of the control panel.

To COOL DOWN the oven:

When the load has finish cooking, you can rapidly cool down the oven by following the directions below:

1. Turn the thermostat to minimum temperature setting.
2. Open both doors, then set the FAN MODE switch to COOL. The fan will run to cool down the oven. (For the most rapid cooling, switch the Fan Speed Switch to HI)
3. When the oven has cooled sufficiently, turn the switch to COOK Mode for the next Cooking. Or when finished cooking for the day, allow the oven to cool down for at least 30 minutes before shutting down. (This will prolong the life of the convection oven fan motor.)
4. Once cool then the Cook Temperature Control to the lowest setting (fully counterclockwise) and turn Power Switch to OFF.

CAUTION: Please follow the COOL DOWN instruction noted above to avoid any burns as the oven will be hot.

CLEANING & MAINTENANCE INSTRUCTIONS



WHEN CLEANING THE CONVECTION OVEN BLOWER WHEEL, BE SURE THE POWER SWITCH IS IN THE OFF POSITION. FOR YOUR SAFETY, DISCONNECT THE ELECTRICAL POWER SUPPLY TO THE APPLIANCE BEFORE CLEANING.

1. Before cleaning, be sure the oven is cool, and the power switch is in the off position.
2. Carefully clean the appliance daily to guarantee its proper operation and long life. Remove the oven-interior racks and rack slide frames. (The rack slide frames are readily removable by merely raising to disengage them from their mounting brackets.) Wash the racks and rack slides in a sink with mild detergent and warm water. Dry them thoroughly with a clean cloth.
3. Look to see if any foreign matter has accumulated in the blades of the blower wheel, (particles of aluminum foil is very common) The debris in the blower wheel will reduce the air flow circulation inside the oven and as a result will be poor bake performance. Use a stiff brush to remove debris and baked on matter from the blade of the blower wheel. Then wash with soap and water.
4. Wash the interior surfaces with mild detergent and warm water. Rinse thoroughly with clean water. For stubborn/baked on debris a commercial oven cleaner may be used. Do not use steel wool in the interior of the oven, particles of the steel wool could be left behind and may contaminate food products. Scotch-Brite® pads or similar ones that are non-metallic may be used.

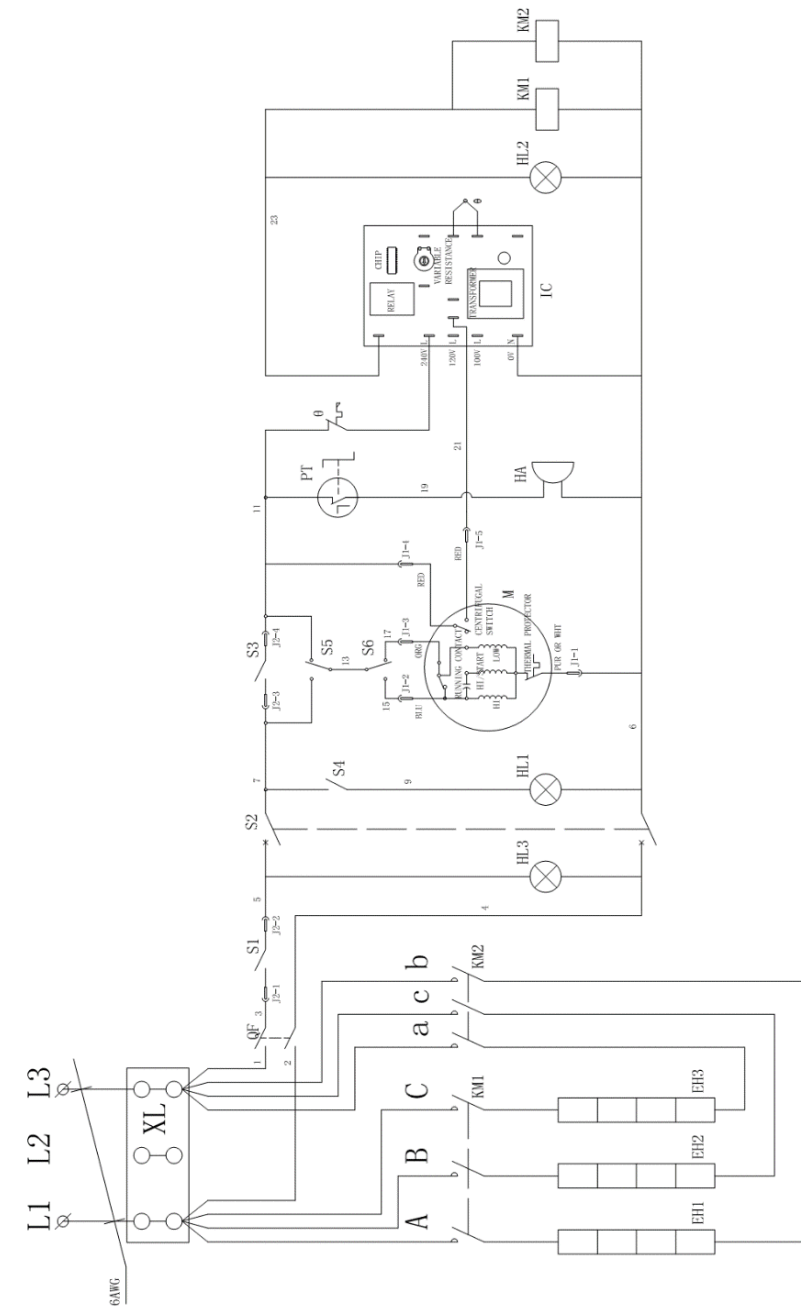
MONTHLY CLEANING

- Clean around the rear of the oven, especially the rear of the motor. Be sure the cooling vents are not blocked with lint or debris. If so, use a stiff bristle brush to clean.

CLEANING STAINLESS STEEL SURFACES

- On the stainless front or interiors, deposits of baked on splatter may be removed with any non-toxic industrial stainless steel cleaner.
- Apply cleaners when the oven is cold. Always rub with the grain of the metal. Never in a circular direction.
- Using Scotch-Brite® pads in combination with powdered cleanser to remove tint and darkened areas. Always scrub in the direction of the grain of the stainless steel.

Electrical Wire Diagram: 1 Phase



XL--connecting terminal	S6--fan switch(HI or LOW)
KM1/KM2--AC contactor	HL1--interior light
EH1 EH2 EH3-- electric heating elements	HL2/HL3--indicator light
QF--air switch	M--motor
S1--protection switch of Electrical box	PT--timer
S2--power switch	HA--buzzer
S3--Door control	IC--electronic thermostat
S4--interior light switch	θ--temperature limiter
S5--cooling switch	

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801 A Technology Way
Libertyville, IL 60048**

**FOR WARRANTY SERVICE CALL:
866-359-7378
IRECO-1-208 IRECO-1-240**

A product with the Iron Range Company name incorporates the best in durability and low maintenance. We all recognize, however, that replacement parts and occasional professional service may be necessary to extend the useful life of this unit. When service is needed, contact an Iron Range Authorized Service Agency, or your dealer. To avoid confusion, always refer to the Model Number, Serial Number, and the Voltage Type of your unit.

Conforms to UL STD.197
Certified TO CSA STD. C22.2 NO.109
CONFORMS TO NSF/ANSI STD.4

