BroilVection™



Model JF143E/JF143-2E Electric Owner's Manual





FOR YOUR SAFETY:

Do not store or use gasoline or other flammable vapors or 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.

Broiler area must be kept free of combustible materials, and the flow of combustion and ventilation air must not be obstructed. Operating personnel must not perform any maintenance or repair functions. Contact your Nieco Authorized Dealer.

IMPORTANT: RETAIN THIS MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE



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A. GENERAL INFORMATION

A.1 Description

The Nieco® Model JF143E automatic broiler features patented BroilVection™ technology, easy cleaning and a simple and intuitive control package to help eliminate broiling problems and provide the operator with even greater control over the broiling environment.

This manual provides the safety, installation and operating procedures for the Nieco Automatic Broiler Model JF143E. We recommend that all information contained in this manual be read prior to installing and operating the broiler.

A.2 Warranty Information

Please read the full text of the limited Warranty in this manual.

If the unit arrives damaged, contact the carrier immediately and file a damage claim with them. Save all packing materials when filing a claim. Freight damage claims are the responsibility of the purchaser and **ARE NOT** covered under warranty.

The warranty does not extend to:

- Damages caused in shipment or damage as a result of improper use.
- Installation of electrical service.
- Normal maintenance as outlined in this manual.
- Malfunction resulting from improper maintenance not in accordance with the steps contained in this manual and any applicable training.
- Damage caused by abuse or careless handling outside of the normal operating procedures contained in this manual.
- Damage from moisture into electrical components.
- · Damage from tampering with or removal of any safety device.

IMPORTANT!

Keep these instructions for future reference. If the unit changes ownership, be sure this manual accompanies the equipment.

IMPORTANT

The Nieco Corporation reserves the right to change specifications and product design. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.





A.3 Service/Technical Assistance

If you experience any problems with the installation or operation of your broiler, contact your local Authorized Nieco Distributor.

Fill in the information bellow and have it handy when calling your authorized service agency for assistance. The serial number is on the broiler rating plate on the side of the unit.

For the name of your local Authorized Nieco Distributor, please call (800) 821-2141.

Use only genuine Nieco replacement parts in your broiler. Use of replacement parts other than those supplied by Authorized Nieco Distributors and Service Agencies will void the warranty and may significantly alter the performance of your broiler. The use of non-Nieco parts is capable of affecting these criteria, and may affect broiler performance, parts longevity and food safety. Your local Authorized Nieco Distributor and Service Agent has been factory trained and has a complete supply of parts for your Nieco Automatic Broiler.

You may contact the factory direct at (707) 284-7100 if you have trouble locating your local Nieco Distributor.

A.4 Important Safety Information

Throughout this manual, you will find the following safety words and symbols that signify important safety issues with regards to operating or maintaining the equipment:

⚠ WARNING ⚠

GENERAL WARNING. Indicates information important to the proper operation of the equipment. Failure to observe may result in damage to the equipment and/or severe bodily injury or death.

⚠ CAUTION **⚠**

GENERAL CAUTION. Indicates information important to the proper operation of the equipment. Failure to observe may result in damage to the equipment.

A WARNING A

ELECTRICAL WARNING. Indicates information relating to possible shock hazard. Failure to observe may result in damage to the equipment and/or severe bodily injury or death.



HOT SURFACE WARNING. Indicates information important to the handling of equipment and parts. Failure to observe caution could result in personal injury.



A.4 Important Safety Information (Continued.)

In addition to the warnings and cautions in this manual, use the following guidelines for safe operation of your Nieco Automatic Broiler:

- Read and follow all instructions before using this equipment.
- Install or locate broiler only for its intended use as described in this manual.
- Do not operate this equipment if it has a damaged cord or plug, if it is not working properly or if it has been otherwise damaged.
- This equipment should only be serviced by authorized personnel. Contact your local Nieco Distributor for adjustment or repair.
- Use only genuine Nieco replacement parts for your broiler. Failure to do so will void the warranty and may significantly alter the performance of your broiler. The use of non-Nieco parts is capable of affecting these criteria, and may affect broiler performance, parts longevity and food safety.

The following warnings and cautions appear throughout the manual and should be carefully observed:

- Turn the broiler off, close the main gas valve, and disconnect the plug before performing any service, maintenance or cleaning on the broiler.
- Always allow the broiler to fully cool before performing any service, maintenance or cleaning. Failure to wait for the broiler to cool fully may result in personal injury.
- The procedures in this manual may include reference to the use of chemical products. The Nieco Corporation does not endorse the use of any particular cleaning/degreasing agent. Use only those chemicals that are approved for use in your restaurant.
- The broiler should be grounded according to local electrical codes to prevent the possibility of electrical shock. It requires a grounded receptacle with separate electrical lines, protected by fuses or circuit breakers of the proper rating.
- All electrical connections must be in accordance with local electrical codes and any other applicable codes.
- The use of adequate ventilation (as rated in this manual) with this broiler is mandatory.
 Failure to adequately ventilate this unit and provide safe operating distances (as specified in this manual) is a fire safety hazard. Follow the instructions for emergency broiler shutdown in the event of an emergency.
- No attempt should be made to operate this appliance in the event of a power failure.

WARNING ELECTRICAL SHOCK HAZARD. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH:

- Electrical ground is required on this appliance.
- Check with a qualified electrician if you are in doubt as to whether the appliance is properly grounded.
- Do not use water on or near the control box for risk of serious injury or death due to electrical shock.

WARNING, HIGH TEMPERATURES WITH HOT SURFACES. FAILURE TO FOLLOW THESE PROCEDURES COULD RESULT IN SERIOUS INJURY:

 Do not attempt to clean, disassemble or perform maintenance on this broiler until it is fully cooled as per the instructions contained in this manual.



B. INSTALLATION

B.1 Pre-Installation

Uncrate the broiler and inspect for shipping damage. Remove the tape securing the machine parts, and install the parts in their proper location. If there are obvious or concealed damages to any part of the broiler, please contact your freight carrier. The factory warranty does not cover freight damage.

B.2 Mounting

Follow the mounting instructions if this function is not performed by the installer.

B.3 Leveling

The grease drain system is based on a gravity-flow design. Therefore, it is extremely important that the broiler be placed on a level surface.

B.4 Hood Requirements

This appliance must be installed under a ventilation hood of adequate size. Do not obstruct the flow of combustion and ventilation air. An adequate air supply must be available for safe and proper operation.

For installations in the Commonwealth of Massachusetts the following shall apply: Venting shall be in compliance with NFPA Section 10.3.5.2 for the Model JF143E / JF143-2E.

B.5 Clearance

Keep appliance area free from combustibles.

To facilitate disassembly and service of the unit a minimum of 24" (610 mm) should be allowed on the control panel (feed end) of the broiler.

REQUIRED AND RECOMMENDED CLEARANCES

	REQUIRED for installation near combustible walls and construction	REQUIRED for installa- tion near non-com- bustible walls and construction	RECOMMENDED by Nieco for proper disas- sembly and service
Back of broiler	12" (305 mm)	0" (0 mm)	0" (0 mm)
Sides of broiler	12" (305 mm)	0" (0 mm)	0" (0 mm)
Front of broiler (Feed end)	12" (305 mm)	0" (0 mm)	24" (610 mm)

B.6 Electrical Connection

Power requirements are stated on the unit nameplate and must be connected accordingly. This appliance, 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, or the Canadian Electrical Code, CSA C22.2, as applicable. Before starting broiler, tighten all electrical connections in control box. An electrical wiring diagram can be found inside the control box.

Note: Disconnect power before servicing.

B.7 Pre-Operation Check

Be sure that all parts are installed in the proper location:

Ventilation is turned on Broiler is plugged in



C. OPERATION

C.1 **Controls and Indicators**

On the front of the broiler:

1.Belt Speed Control - Used to set the broil time for the meat belt



1.

2.

2. Main On/Off Switch - Turns the broiler on and off.



3. Power Indicator Light - Glows green when the power to the broiler is on.



On the side of the broiler:

4.Load Stabilizer Control - Controls the energy input to the broiler when it is under load.



5. Bun Platen Temperature Control - Used to control the temperature of the bun platen.



6.Belt Reverse Button - Push and hold to reverse the direction of the belt to help clear a belt jam.



C.2 OPERATING PROCEDURES

PRE-OPERATING PREPARATION

- Broiler is centered under hood and plugged in
- 2. Turn ventilation system on

⚠ WARNING **⚠**

THE VENTILATION SYSTEM MUST BE ON AT ALL TIMES DURING BROILER OPERATION. OPERAT-ING BROILER WITHOUT PROPER VENTILATION IS A SEVERE FIRE

NORMAL IGNITION

1. Turn the MAIN POWER SWITCH on.



2. Check the elements to verify they are on and glowing.





C.3 Shutdown Procedures

SHUTDOWN

- Allow the broiler to run free of any product for 10 minutes. This will burn the chain clean.
- 2. Turn off the Main Power Switch.



3. Wait for 30 minutes for the broiler to cool.

A CAUTION **A**

FOR YOUR SAFETY: Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

⚠ CAUTION **⚠**

FOR YOUR SAFETY: In the event of a prolonged power failure, no attempt should be made to operate this appliance.



C.4 Control Operation

IMPORTANT: THIS BROILER IS SHIPPED WITH FACTORY PRESETS THAT MUST BE

Adjust the broil times for safe cook out of your products. If this is the initial start-up of your broiler, follow the procedures for automatic calibration to properly calibrate the broiler.

CONTROL OPERATION

1. SETTING BELT SPEEDS

Press up arrow to increase broil time; press the down arrow to decrease broil time. After you have set the control the display will be flashing. Press the center square to save your changes. NOTE: After making changes to the broil time, if you do not press the center square button, your changes will not be saved.

2. LOAD SENSING CONTROL

How it works:

The load sensing control cycles the elements to help keep the broiler stable during cooking.

3. CALIBRATION

Perform calibration in the morning when the broiler is cool.

- a. Turn the broiler on and set the set point (bottom number on the control) to 1000. Let the broiler warm up for one hour. Do not cook during the warm up period.
- b. After an hour, push the down arrow to lower the set point to 20° BELOW the actual temperature.
- c. Your broiler is now calibrated.

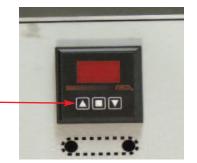
BUN PLATEN TEMPERATURE CONTROL

To change the set point temperature: Press and hold the center square button for 5 seconds until the control display changes to the flashing set point number. Use the up and down buttons to set the bun platen temperature. After you are done making your changes, press the center square button to save your changes.

The control will then display the new set point for a few seconds, then display the actual temperature.

Under normal operation, when the platen is warming up, the control will display 'Lo', then it will display 'Rdy' when it is ready for use.

Use the up and down arrows to set the time. Press the center square button to save your changes.



Calibration
Raise the set point temperature to 1000.

Let broiler run for 1 hour.

Lower the set point temperature to 20^a BELOW the actual temperature.

Do not cook during calibration.

The numbers on your broiler will be different than those shown here.









C.4 Control Operation

ADJUSTING THE BUN BELT

Use the adjustment levers to adjust the height of the bun platens. The lever on the right controls the crown side of the bun belt, while the left side control the height of the heel side of the bun belt. Adjust the levers up or down to increase or decrease the height of the bun platen for proper bun grilling.





D. CLEANING AND DISASSEMBLY

Turn broiler off. Disconnect the power supply to the broiler before cleaning or servicing. If this broiler is connected using a restraint, and disconnection of the restraint is necessary for cleaning or moving the broiler, the restraint must be reconnected after the broiler has been returned to its originally installed position. Allow to cool for 30 minutes prior to cleaning/disassembly. Leave the ventilation system on during cooling. Use only approved cleaning, degreasing and sanitizing solutions.

⚠ WARNING ⚠

LEAVE THE VENTILATION HOOD ON DURING COOLING. FAILURE TO DO SO COULD POSE A FIRE SAFETY HAZARD.

⚠ CAUTION ⚠

Follow the Disassembly and Reassembly steps to ensure proper operation of the broiler. Failure to do so may result in operational problems.

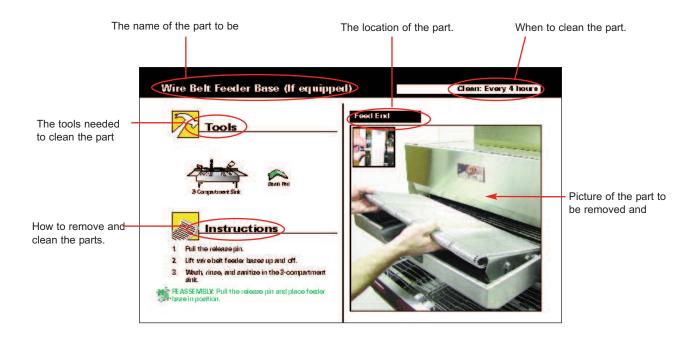
WARNING 📈

BROILER PARTS ARE HOT. DO NOT ATTEMPT TO DISASSEMBLE THE BROILER UNTIL IT IS FULLY **COOL. FAILURE TO FOLLOW THIS INSTRUCTION MAY RESULT IN** SEVERE INJURY.

ALL PARTS ARE CLEANED ON A DAILY BASIS UNLESS OTHERWISE NOTED

Follow the steps for proper disassembly. Reverse the order for reassembly.

How to read the cleaning section





Cleaning the Broiler





Important Symbols



This "Stop" sign shows a step in the procedure that must be followed exactly or personal safety could be affected.



This warning symbol shows a step in the procedure that must be followed exactly or broiler performance could be affected.



This "puzzle" symbol shows a step in the reassembly procedure that must be followed.



Instructions

- Allow the broiler to run free of product for 10 minutes before turning it off. This allows any residue to burn off the chains.
- 2. Shut the broiler off and let it cool for 30 minutes before disassembly and cleaning.
- 3. Close the main gas valve and unplug the broiler before cleaning.
- 4. Always leave the ventilation hood on during the 30 minute cool down period.

Clean: Every 4 hours

- 5. Use only approved cleaning solutions.
- 6. Allow parts to air dry after cleaning.

Wire Belt Feeder Base (If equipped)



Tools



Scrub



Instructions

- 1. Pull the release pin.
- Lift wire belt feeder bases up and off.
- 3. Wash, rinse, and sanitize in the 3-compartment sink.



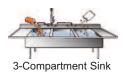
Feed End







Tools







Instructions

- 1. Lift and remove.
- 2. Wash, rinse, and sanitize in the 3-compartment sink.



REASSEMBLY: Hang feeder housing on brackets.

Feed End



Grease Pan Clean: Daily



Tools



Sorub





Degreaser

3-Compartment Sink



Instructions

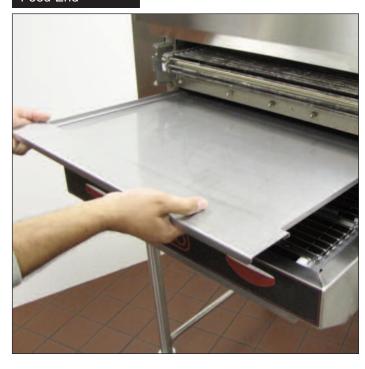
1. Slide grease pan out.



Make sure grease pan is cool before putting in water or it may warp the pans.

- 2. Take to sink area and spray with degreaser.
- 3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.

Feed End







Tools







Instructions

- 1. Slide the sheet out from under the bun platen.
- 2. Using a clean, damp cloth, wipe the sheet clean.



Feed End



Crumb Tray





Tools







Instructions

- Slide out from under bun belt.
- Wash, rinse, and sanitize in the 3compartment

Feed End













Instructions

- 1. Lift up and off.
- 2. Take to sink area and spray with degreaser.
- 3. Wash, rinse, and sanitize in the 3-compartment

Feed End



Discharge Heat Shield

Clean: Daily



Tools









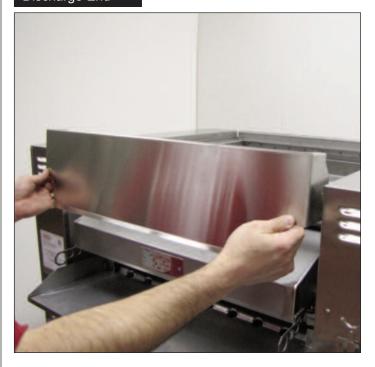


3-Compartment Sink



Instructions

- Lift up and off.
- Take to sink area and spray with degreaser.
- Wash, rinse, and sanitize in the 3compartment







Tools



Heat Resistant





Degreaser

3-Compartment Sink



Instructions

- Lift up and off.
- Take to sink area and spray with degreaser.
- Wash, rinse, and sanitize in the 3compartment

Discharge End



Sizzle Plate Clean: Daily



Tools



Heat Resistant







Degreaser 3-Compartment Sink



Instructions

- Lift sizzle plate up and off.
- Take to sink area and spray with degreaser.
- Wash, rinse, and sanitize in the 3compartment





Patty Catch Pan



Tools









Instructions

- Lift up and off.
- Take to sink area and spray with degreaser.
- Wash, rinse, and sanitize in the 3compartment

Discharge End



Clean: Daily

Stripper Blade Clean: Daily



Tools







Degreaser



Scrub Pad





Instructions

Tilt stripper blade away from chain; lift off brackets.



Make sure stripper blade is cool before putting in water or it may warp.

- 2. Take to sink area and spray with degreaser.
- Wash with a scrub pad, rinse, and sanitize in 3-compartment sink. the



REASSEMBLY: Hang stripper blade on brackets.





Bun Blade Clean: Daily



Tools





Heat Resistant



3-Compartment Sink



Instructions

- 1. Lift up and off.
- 2. Take to sink area and spray with degreaser.
- 3. Wash, rinse, and sanitize in the 3-compartment sink.

Discharge End



Grease Chute Clean: Daily



Tools









Instructions

- 1. Lift up and off.
- 2. Take to sink area and spray with degreaser.
- 3. Wash, rinse, and sanitize in the 3-compartment sink.





Grease Box Clean: Daily



Tools



Scrub Pad







Instructions

- Lift grease box off.
- Take to sink area and spray with degreaser.
- Wash with a scrub pad, rinse, and sanitize in 3-compartment sink. the



REASSEMBLY: Put grease box on before the grease trough.

NOTE: If your broiler is on legs and not a stand your grease box will be as shown in picture two.

Side



Incendalyst™





Tools



Heat Resistant Gloves



Instructions



EXTREMELY HOT! Be careful not to burn

- 1. Grasp handle and lift Catalyst off to remove from Shroud.
- 2. SOAK IN WARM WATER FOR 1 HOUR. WATER ONLY. NEVER RINSE WITH USE ANY CHEMICALS ON THE CATALYST.
- 3. Lay flat to drain water and let air dry overnight.

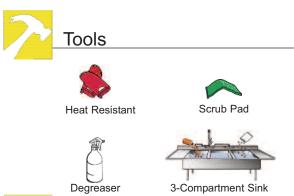
Top



CAUTION: Extremely Hot



Chimney Clean: Monthly





Instructions

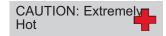


EXTREMELY HOT! Be careful not to burn yourself.

- 1. Lift Incendalyst™ chimney up and off.
- 2. Take to sink area and spray with degreaser.
- 3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.

Top





Air Boxes Clean: Weekly



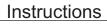
Tools



stant 3-Compartment Sink



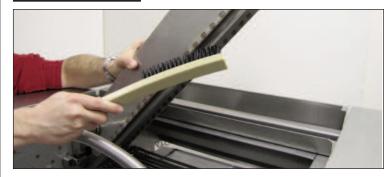
Heat Resistant



- 1. Lift air upper air box from the top of the broiler. It is not necessary to detach them.
- 2. Use a stiff brush to clean any clogged burner holes.



Top







Chain Shafts Clean: Daily



Tools





Instructions

- 1. Scrape each shaft of both belts on the discharge end with the value shaft cleaning tool. The tool located on the clip on the back of the end with the wide end of The tool is broiler.
- 2. Wipe shaft cleaning tool with a towel.





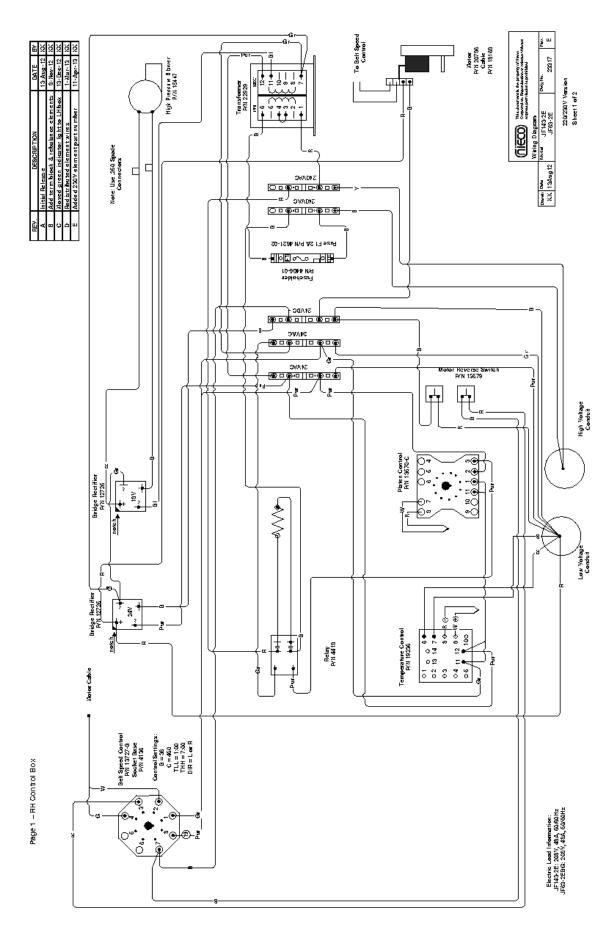
E. TROUBLESHOOTING

Always verify that the broiler is properly assembled, the hood is on, and the broiler is plugged in.

No power to broiler when the switch is turned on.	Check: Broiler is plugged in. Ventilation hood is on. Circuit Breaker on wall panel is on.	
Power is on, broiler is lit, but the conveyor belts are not turning.	Check for a jam in the conveyor belt. Check the stripper blade to make sure they are installed properly.	
Feeder belt not moving.	Make sure the feeder is assembled properly. Check for jam. Make sure the drive pin is engaged.	
Feeder jams.	Make sure the burgers are not frozen together.	
Burgers sticking to slide or stripper blade.	Clean the slide and stripper blade very thoroughly. Check cookout temperature (undercooking).	
COOKING PROBLEMS Burgers under or over cooked.	Adjust conveyor belt speed.	
Excessive flaming in broiler.	Clean the catalyst if equipped. Check the hood for proper operation. Check product for overcooking.	

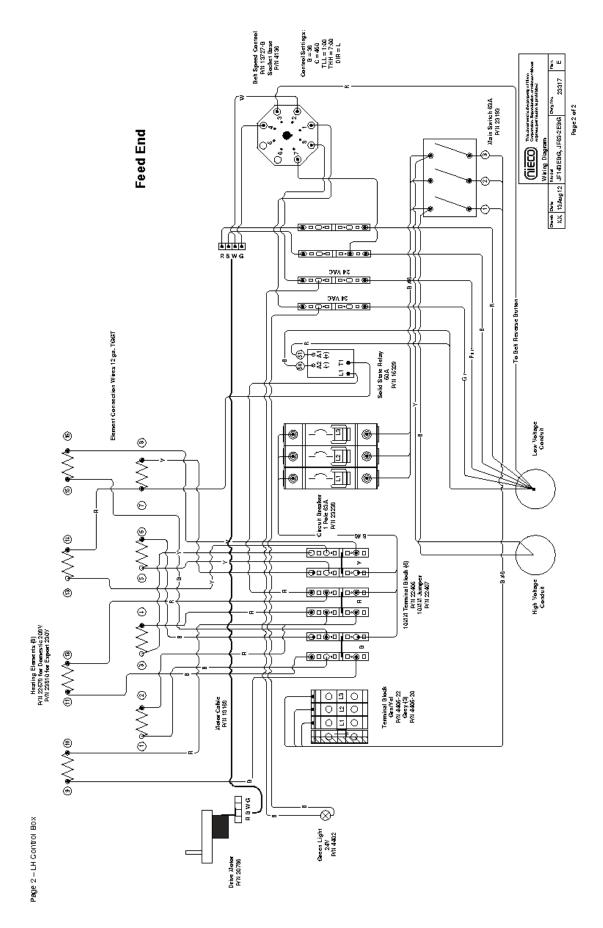


F. WIRING DIAGRAM





F. WIRING DIAGRAM





G. SPECIFICATIONS

AUTOMATIC BROILER Model JF63E-BG

DIMENSIONS	Inches	mm
Length	42.34	1075
Height (on stand)	57.62	1463
Width	34.73	882

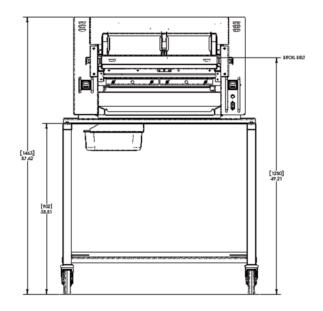
ENERGY

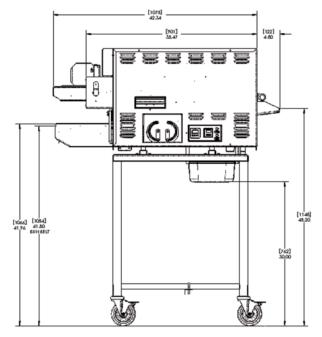
Average Usage 16.2 Kw/h

208V 3 55A 220V 3 53A 380V 3 30A

WEIGHT

485 lbs 219 Kg





⚠ CAUTION **⚠**

All electrical connections must be in accordance with local electrical codes and any other applicable codes.

⚠ CAUTION **⚠**

Do not operate the broiler at gas pressures other than those stated here. Doing so will affect the operation of your broiler.





Revision History:

Date Notes REV

4-25-2013	Released	Α
8-6-2014	General Updates	В



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