



AUTOMATIC  
FOODSERVICE  
EQUIPMENT

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FLEXI-CHEF SYSTEM®  
AUTOMATIC ELECTRIC BROILER  
MODEL 615E

# OPERATING INSTRUCTIONS

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

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.

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

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# INSTALLATION

## PRE-INSTALLATION

Uncrate the broiler, and inspect for shipping damage. Contact the factory if there is obvious damage. Remove the tape securing the machine parts, and install the parts in their proper location. If you find concealed damage to any part of this unit, contact your freight carrier immediately. The factory warranty does not cover freight damage.

## MOUNTING

If the broiler was shipped with a tubular stand, refer to separate tubular stand assembly instructions.

**Note:** The four legs of the broiler stand are equipped with casters. Always set the brakes on the casters to prevent the broiler from shifting during operation or cleaning.

## HOOD REQUIREMENTS

This appliance must be installed under a ventilation hood of adequate size and capacity (approximately 400 CFM). The hood should be at least 6" larger in all dimensions than the appliance top, and be 12" to 18" above the top. Do not obstruct the flow of combustion and ventilation air. An adequate air supply must be available for safe and proper operation.

**Note:** See the National Fire Prevention Association booklet on ventilation of cooking equipment. Write to: NFPA, 470 Atlantic Ave., Boston, MA 02210. Local codes on venting must also be complied with.

## CLEARANCE

For proper installation, the minimum clearance from combustible and non-combustible construction is 6" from the back and 6" from the front of the machine. Keep appliance area free from combustibles.

To facilitate disassembly and service of the unit a minimum of 24" should be allowed on each end of the broiler to allow the drip trays and reflectors to be removed.

## ELECTRICAL CONNECTION

Power requirements are stated on the unit nameplate and must be connected accordingly. Before starting broiler, tighten all electrical connections in control box.

**Note:** This appliance must be electrically grounded in accordance with local codes or in the absence of local codes, the National Electrical Code, ANSI/NFPA No. 70-1990. In Canada, in accordance with the Canadian Electrical Code CSA 22.1 part 1, or local codes.

**WARNING: This appliance should be connected with a five-wire (3 phase, neutral, ground) plug for your protection against shock hazard. Be sure to plug directly into a properly grounded five-prong receptacle. Do not cut or remove grounding prong from plug.**

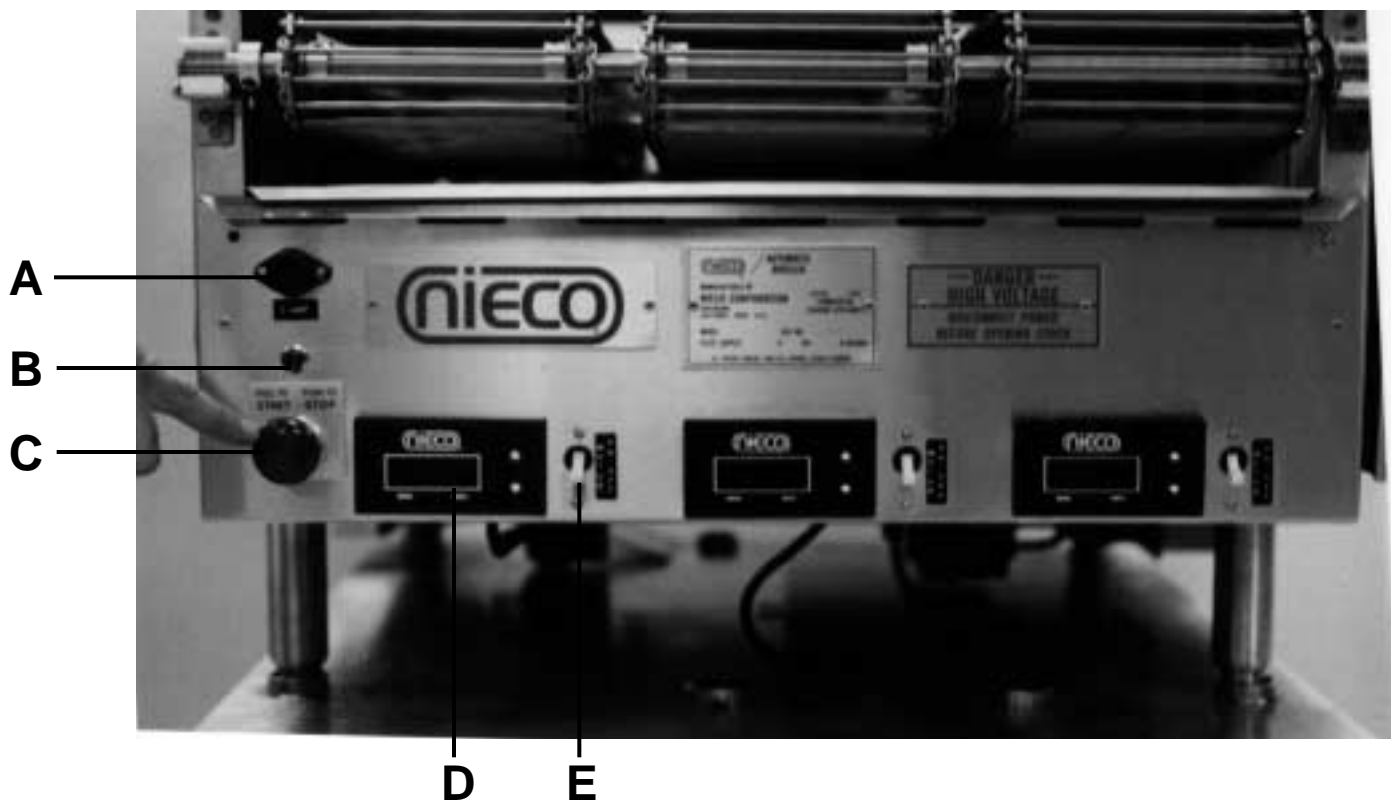
**Note:** This appliance cannot be safely operated in the event of a power failure. No attempt should be made to operate during a power failure. Disconnect power supply before servicing.

## PRE-OPERATION CHECK

Be sure that all parts are installed in the proper location. Refer to **OPERATION** section for starting procedure. Start broiler and test for proper operation.

# CONTROLS AND INDICATORS

MODEL 615E OR 815E



A. 5 Amp fuse

B. Power On Indicator Light (Red)

C. Main Power On/Off Switch (Red)

D. Digital Speed Controller (2 - 615, 3 - 815)

E. Motor On/Off Switches (White) (2 - 615, 3 - 815)

## STARTING PROCEDURE

Before starting broiler, ensure that all parts are installed in the proper location, the plug is properly inserted in the socket, and the ventilation hood is turned on.

1. Turn on the power to the broiler by pulling out the red On/Off switch (C).
2. Turn on the motor switches (E) and set the cook times on the digital speed controller (D).

## SHUTDOWN PROCEDURE

For **EMERGENCY** Shutdown, turn the Main Power Switch off. (PUSH Red Switch in.)

For planned shutdowns, perform the following procedure:

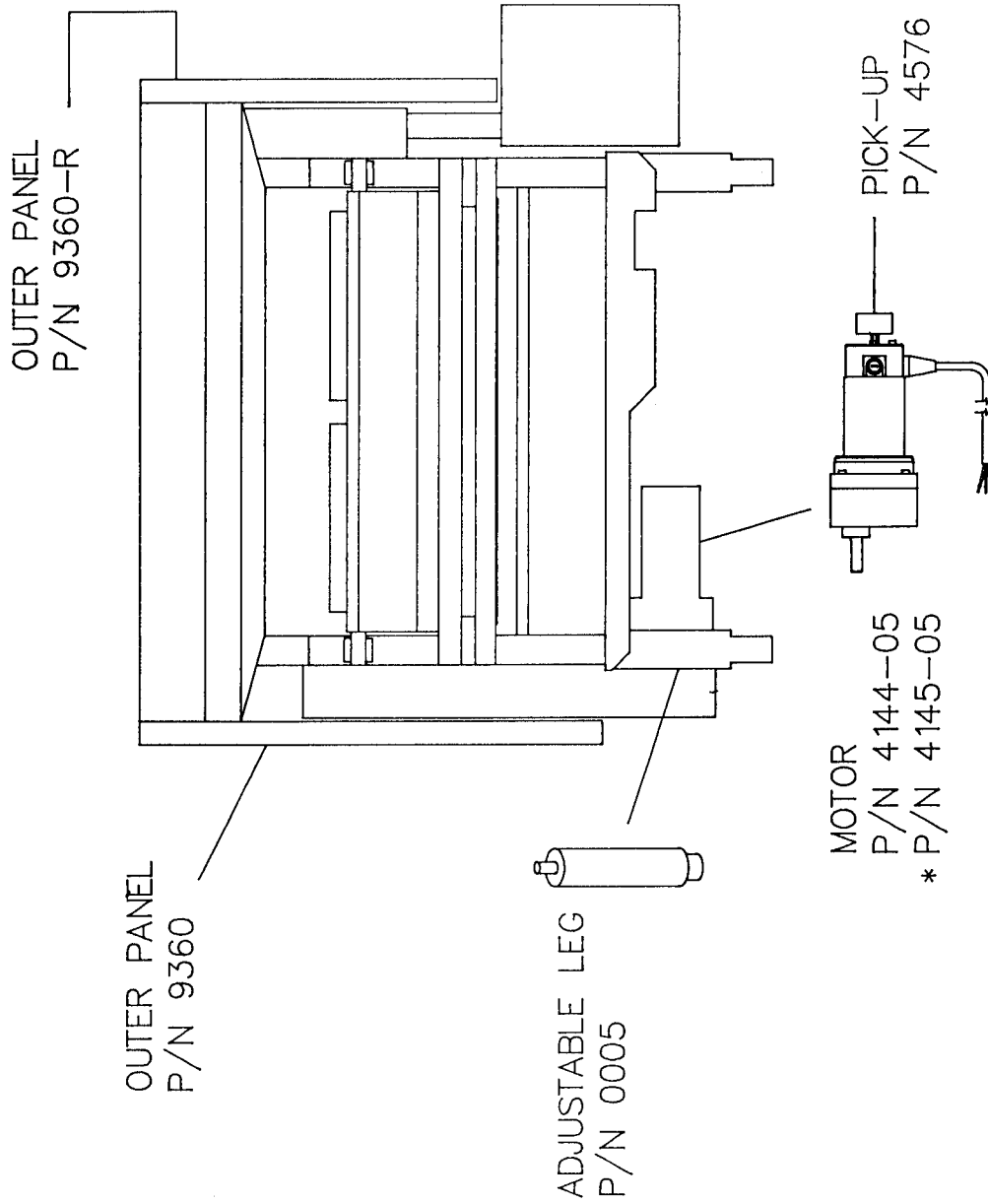
1. Clear machine of all food products.
2. Turn Main Power Switch off.
3. Turn Motor Switches off.

**CAUTION:** Always turn machine completely off before unplugging power cord.

**CAUTION:** Allow machine to cool before removing any parts.

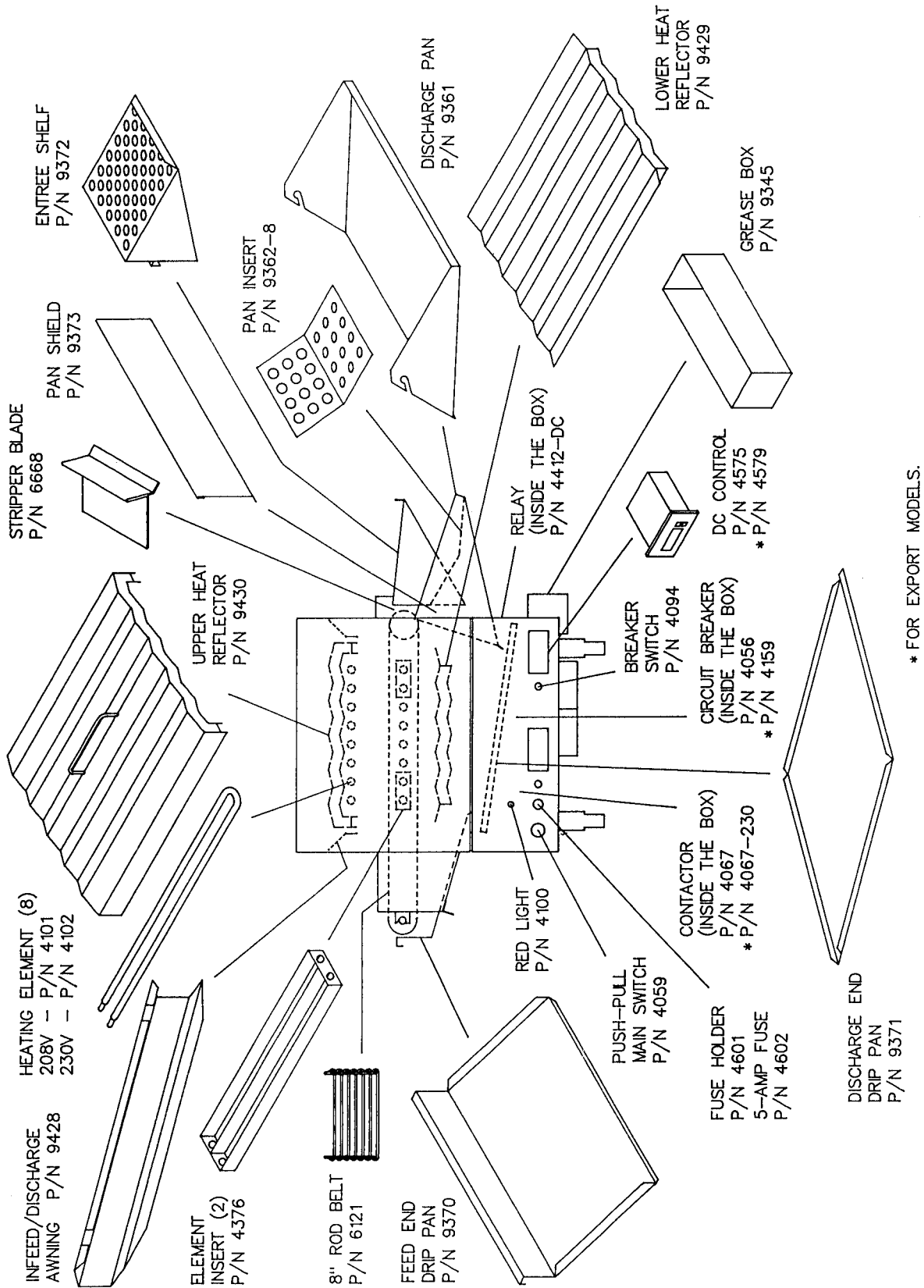
# PARTS AND LOCATION

## MODEL 615E - FEED END VIEW



# PARTS AND LOCATION

## MODEL 615E - FRONT SIDE VIEW



# CLEANING INSTRUCTIONS

**Do not spray anything on or in the control box. Doing so may damage the broiler.**

## DAILY CLEANING

Clear broiler of all food product before shutting down to clean. Allow broiler to cool before handling parts.

1. SHEET METAL PARTS. Remove all trays, drip pans, stripper blades, reflectors, and side panels. Wash with water and an approved multi-use detergent.
2. SHAFTS. Scrape clean the drive shafts with the special tool provided if necessary.

## WEEKLY CLEANING

1. Clean the frame of the broiler as necessary to remove grease build up.

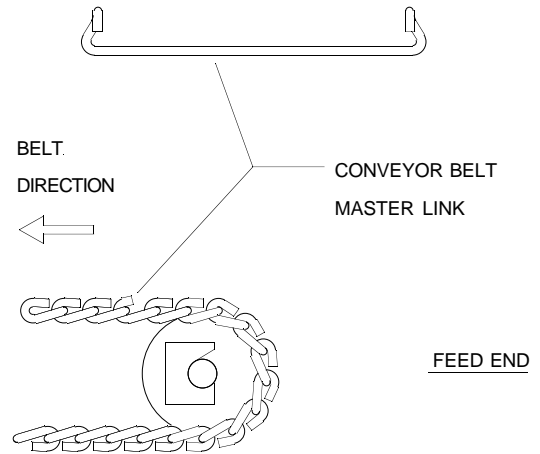
## MAINTENANCE

The 615E has very few regular maintenance items. With proper care the broiler will provide many years of reliable service.

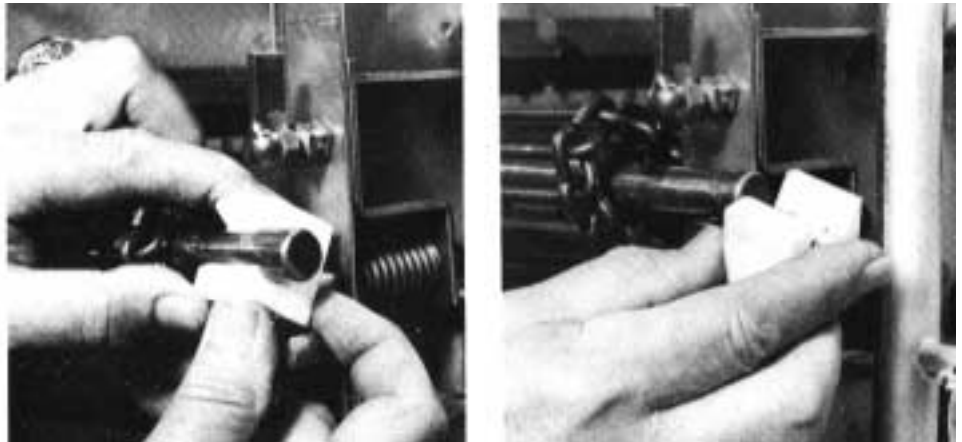
- Handle sheet metal parts carefully to avoid dents and breakage.
- Salts and marinades can corrode the belts and reflectors. If possible, salt food after removing it from the broiler.
- If you have to replace any of the elements, make sure you order elements that are rated for the supply voltage to the machine. Rotating the elements periodically will increase their life.
- The motors contain carbon brushes which will eventually need to be replaced. If you notice that your motor is running loud, occasionally tripping the breaker switch, or causing the conveyor to move erratically, replace the motor brushes. Contact your Nieco Authorized Distributor for replacement brushes.

# CONVEYOR BELT REMOVAL

1. Run the conveyor belt until the master link is located near the drive shaft. (The master link has a shorter knuckle, to allow it to be uncoupled easily.)



2. Lift the shaft up and slide the teflon bearing block out.



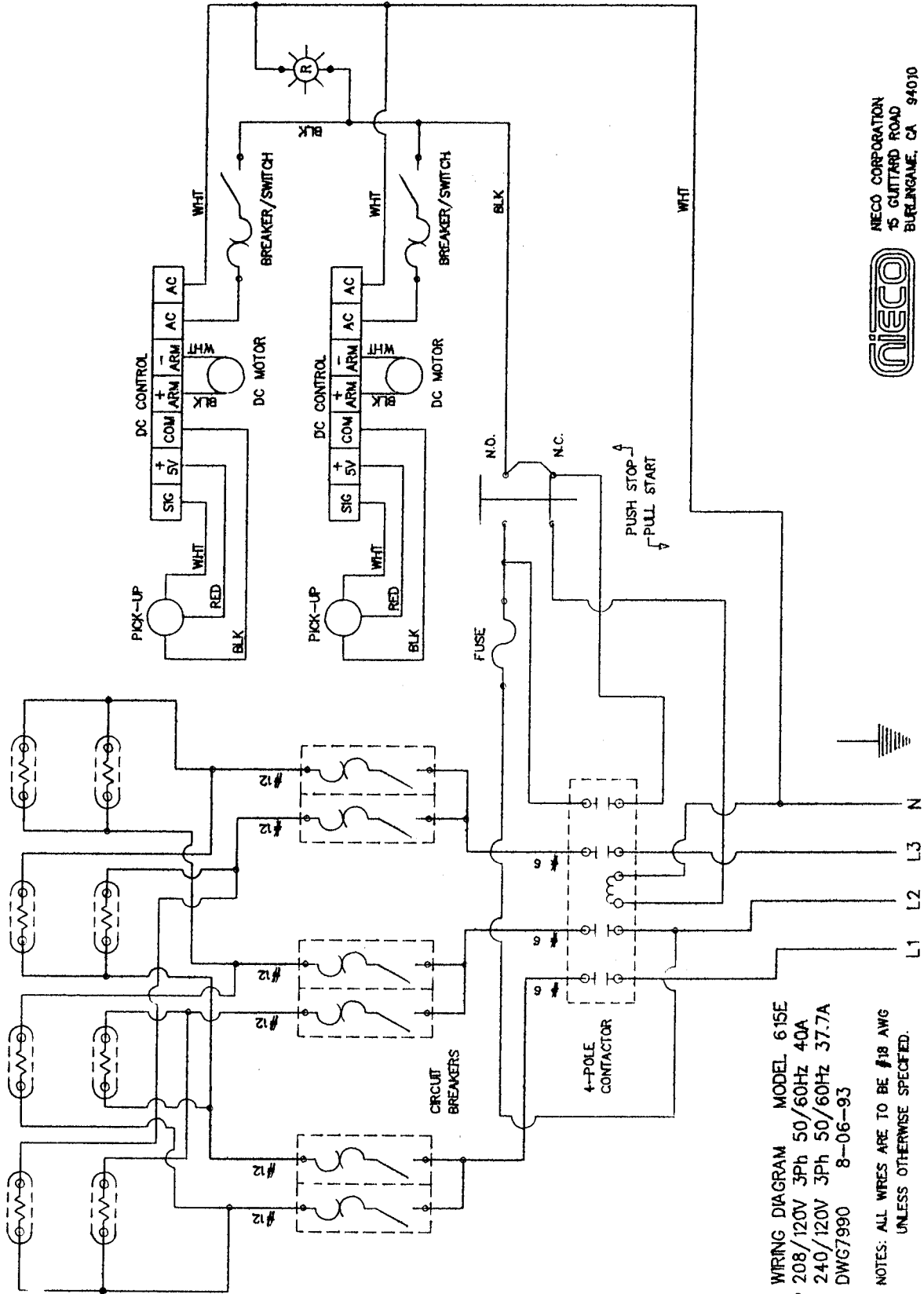
3. Unhook the belt at the master link.



# WIRING DIAGRAM

HEATING ELEMENTS

● 208V 1600W \* 230V 1600W



WIRING DIAGRAM MODEL 615E  
 ● 208/120V 3Ph 50/60Hz 40A  
 \* 240/120V 3Ph 50/60Hz 37.7A  
 DWG7990 8-06-93

NOTES: ALL WIRES ARE TO BE #18 AWG  
 UNLESS OTHERWISE SPECIFIED.



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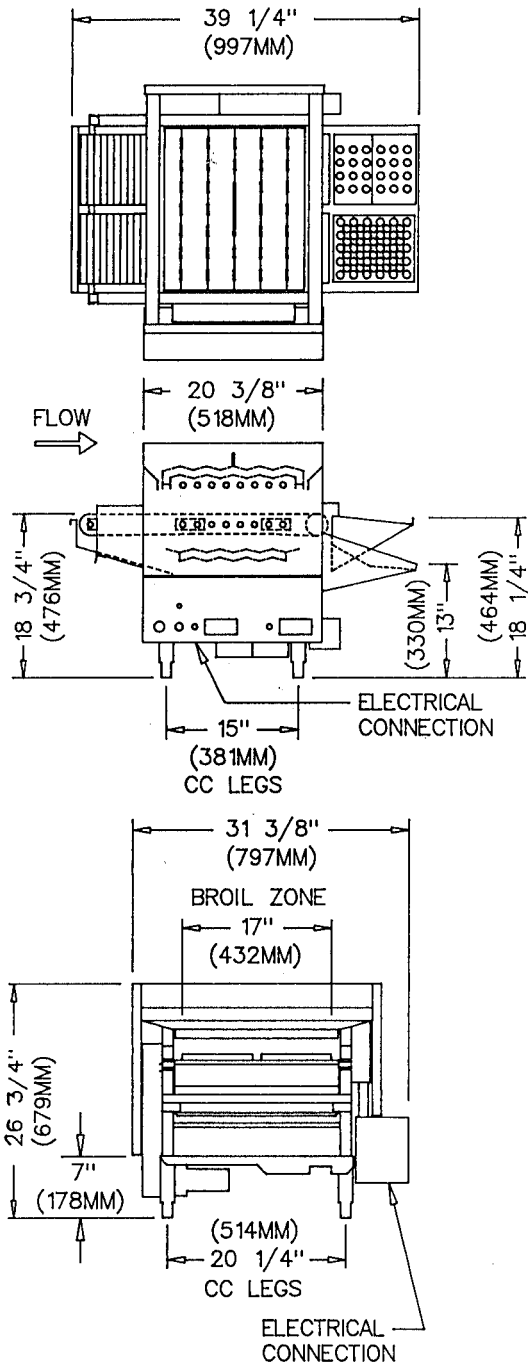
# TROUBLE SHOOTING GUIDE

Identify the problem in the left column, and look for probable causes and solutions in the right hand columns. Probable causes are listed in "most likely to happen" order. This sequence should be used to isolate the problem. Once the cause is found, refer to OPERATION and PARTS AND LOCATION sections for explanation of function or repair part needed. Wiring diagram is located inside electrical control box cover.

PROBLEM	PROBABLE CAUSE	SOLUTION
<b>1. All elements go out or fail to heat up.</b>	<ol style="list-style-type: none"> <li>1. Unit not plugged in properly.</li> <li>2. Breaker switch on wall panel tripped.</li> <li>3. Broiler circuit breaker tripped.</li> <li>4. Broiler on/off switch defective.</li> <li>5. Main contactor not closing.</li> <li>6. Main contactor not staying closed.</li>   <li>7. Fuse Blown.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug in properly.</li> <li>2. Reset circuit breaker.</li> <li>3. Reset circuit breaker.</li> <li>4. Replace.</li> <li>5. Replace contactor coil.</li> <li>6. Replace on/off switch and check for loose wires.</li> <li>7. Replace.</li> </ol>
<b>2. Some elements are on, but others refuse to heat.</b>	<ol style="list-style-type: none"> <li>1. Defective element.</li> <li>2. Circuit breaker tripped.</li> <li>3. Loose or broken wire.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace.</li> <li>2. Reset.</li> <li>3. Check all wires. Tighten or replace.</li> </ol>
<b>3. Elements appear hotter or colder than usual.</b>	<ol style="list-style-type: none"> <li>1. Supply voltage is different than the element ratings.</li> </ol>	<ol style="list-style-type: none"> <li>1. Correct supply voltage or install elements that are rated for the supply voltage.</li> </ol>
<b>5. Conveyor belts won't advance.</b>	<ol style="list-style-type: none"> <li>1. Conveyor belt jammed.</li> <li>2. Machine not plugged in properly.</li> <li>3. Wall circuit breaker tripped.</li> <li>4. Motor control switch off.</li> <li>5. Motor speed dial turned to zero.</li> <li>6. SCR unplugged or defective.</li> <li>7. Drive chain broken.</li> <li>8. Drive sprocket loose.</li> <li>9. Gear motor defective.</li> <li>10. Speed pot defective.</li> <li>11. Loose or broken wire.</li> <li>12. Motor unplugged.</li>   <li>13. Fuse Blown.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove jam. Reset motor switch.</li> <li>2. Plug in properly.</li> <li>3. Reset circuit breaker.</li> <li>4. Turn on.</li> <li>5. Increase setting.</li> <li>6. Plug in or replace.</li> <li>7. Repair or replace.</li> <li>8. Tighten set screw on the sprocket.</li> <li>9. Replace.</li> <li>10. Replace.</li> <li>11. Check all wires. Tighten or replace.</li> <li>12. Plug in. Check for grease or dirt in the socket.</li> <li>13. Replace.</li> </ol>
<b>6. Motor control switch trips.</b>	<ol style="list-style-type: none"> <li>1. Conveyor chains jammed.</li> <li>2. SCR defective.</li> <li>3. Motor brushes worn out.</li> <li>4. Drive chain binding.</li> <li>5. Shorted wire to motor.</li> <li>6. Motor defective.</li> <li>7. Switch defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove jam. Reset motor switch.</li> <li>2. Replace.</li> <li>3. Replace.</li> <li>4. Adjust chain tension. Lubricate.</li> <li>5. Repair wire.</li> <li>6. Replace.</li> <li>7. Replace.</li> </ol>
<b>7. Conveyor speeds are erratic.</b>	<ol style="list-style-type: none"> <li>1. Digital Speed Controller defective.</li> <li>2. Drive chain binding.</li> <li>3. Gear motor defective.</li> <li>4. Loose drive sprockets.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace.</li> <li>2. Adjust chain tension. Lubricate.</li> <li>3. Replace.</li> <li>4. Tighten set screws on sprocket.</li> </ol>
<b>8. Broiled product over or under cooked.</b>	<ol style="list-style-type: none"> <li>1. Wrong conveyor belt speed.</li> <li>2. Incorrect elements installed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust motor speed.</li> <li>2. Match the voltage rating of the elements to the supply voltage.</li> </ol>

PROBLEM	PROBABLE CAUSE	SOLUTION
<b>9. Broiled product sticks to conveyor belt.</b>	<ol style="list-style-type: none"> <li>1. Stripper blades not adjusted or installed properly.</li> <li>2. Product under broiled.</li> <li>3. Elements too cool.</li> <li>4. Heat reflectors not installed or installed improperly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust or install properly.</li> <li>2. Decrease motor speed.</li> <li>3. Check elements.</li> <li>4. Refer to Parts &amp; Location section for proper placement of reflectors.</li> </ol>
<b>10. Inconsistent broil.</b>	<ol style="list-style-type: none"> <li>1. Conveyor speed erratic.</li> <li>2. Incoming product temperature erratic.</li> <li>3. Air condition vent blowing on broiler.</li> <li>4. Erratic voltage supply.</li> <li>5. Supply voltage incorrect.</li> </ol>	<ol style="list-style-type: none"> <li>1. See #7 above.</li> <li>2. Check freezers for proper operation.</li> <li>3. Redirect air away from broiler.</li> <li>4. Check supply. Contact electric company if there are problems.</li> <li>5. Match the supply voltage with the element ratings.</li> </ol>
<b>11. Broiler frame or parts warping.</b>	<ol style="list-style-type: none"> <li>1. Elements too hot.</li> </ol>	<ol style="list-style-type: none"> <li>1. Match supply voltage to element rating plate on the broiler.</li> </ol>

# SPECIFICATIONS



## FULL SERVICE NETWORK

Backed by the Nieco worldwide distributor network, your 615ETR model and all other Nieco equipment comes with a full service system that provides on time delivery, start-up and training assistance, as well as 24-hour emergency help, should you ever need it.

## REQUIREMENTS

### ENERGY - ELECTRIC MODEL

#### Electrical Connection

208/120V 3PH 50/60HZ 40A  
230/120V 3PH 50/60HZ 40A

Average Kw/Hr Consumption 8.3

WEIGHT	LB.	KG.
Approximate	250	113

EXHAUST	CFM	CMH
Typical	400	680

DIMENSIONS	INCHES	MM
Height	26 3/4"	679
Width	31 3/8"	797
Length	39 1/4"	997

- \* Standard Model Equipped With 6" Legs.
- \* Stainless Steel Stand With Casters Optional.



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