



AUTOMATIC  
FOODSERVICE  
EQUIPMENT

AUTOMATIC GAS BROILER  
MODELS 940 GAS AND 960 GAS

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# OWNER'S MANUAL

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



**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.

In a prominent location, post instructions to be followed in the event the user smells gas. This information shall be obtained by consulting your local gas supplier.



# TABLE OF CONTENTS

<b>A. General Information</b> .....	<b>4</b>
Description	
<b>B. Machine Installation</b> .....	<b>6</b>
Pre-Installation	
Mounting	
Hood Requirements	
Clearance	
Gas Connection	
Electrical Connection	
Pre-Operation Check	
Gas Connectors and Restraining Device	
<b>C. Operation</b> .....	<b>9</b>
Controls and Indicators	
Gas System Controls	
Step-by-Step Lighting Procedure	
Shutdown Procedure	
Automatic Temperature Control	
Bun Platen Adjustment	
<b>D. Parts and Location</b> .....	<b>14</b>
Model 960 & 940	
<b>E. Assembly/Disassembly and Cleaning</b> .....	<b>17</b>
<b>F. Conveyor Belt Removal</b> .....	<b>21</b>
<b>G. Conveyor Belt Tension</b> .....	<b>22</b>
<b>H. Trouble Shooting Guide</b> .....	<b>23</b>
<b>I. Wiring Diagrams</b> .....	<b>25</b>

## A. DESCRIPTION

### MODEL 940/960 AUTOMATIC GAS BROILER WITH ATC



#### **Description**

NIECO Model 940/960 Automatic Gas Broilers are compact, self-contained, flow-through units, which automatically broil hamburgers and grill buns. The broilers employ a 24" wide broil belt and gas burners in the meat cooking section. The lower bun grilling section uses an electrically heated platen to warm and brown buns which automatically pass beneath the platen on the 24" wide belt.

Model 940 and 960 Broilers are similar mechanically and electrically, except that the Model 960 has an additional set of upper and lower burners.

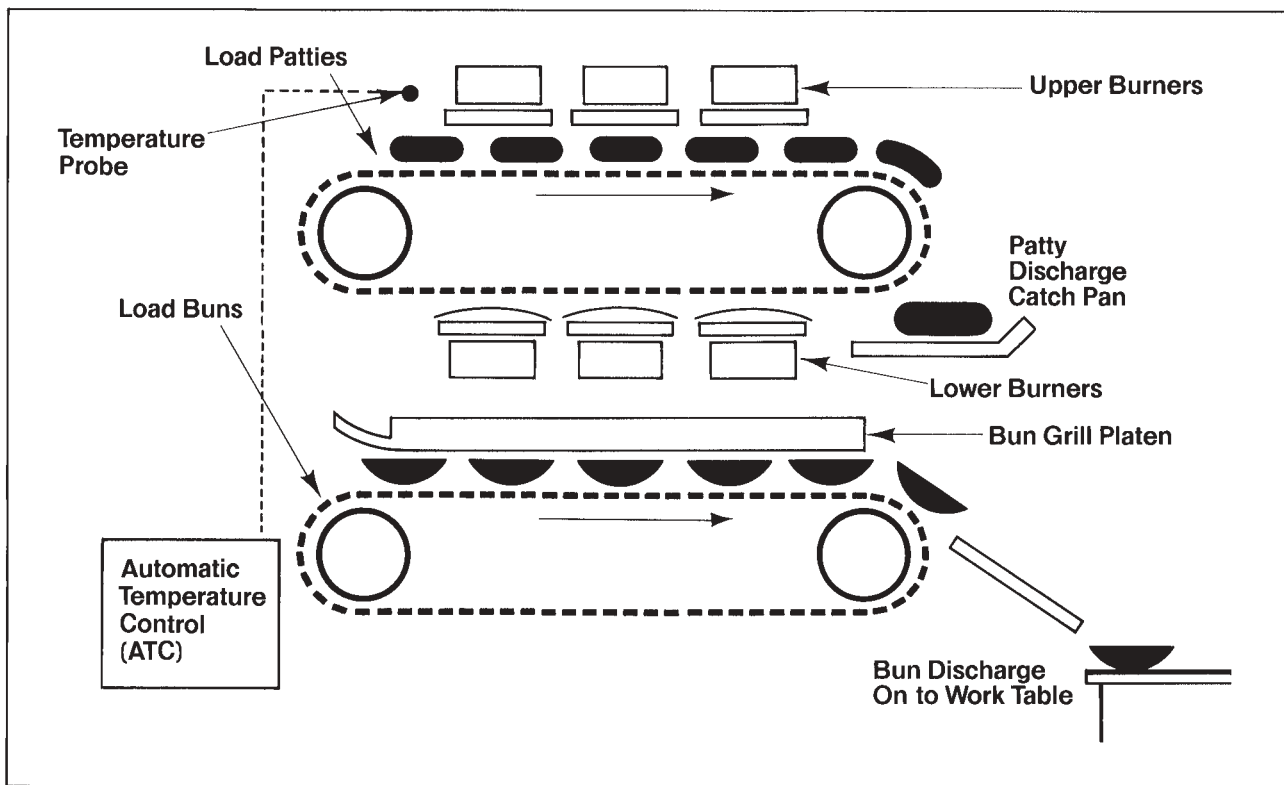
#### **Automatic Temperature Control**

Both broilers are equipped with an Automatic Temperature Control (ATC). This device responds to temperature changes in the cooking chamber by increasing or decreasing the flow of gas to the burners automatically. This automatic adjustment is an important factor in cooking consistency and energy savings.

# HOW THE MODEL 940/960 WORKS

NIECO Model 940/960 Broilers are divided into two sections. As illustrated below, the conveyORIZED top section broils burgers on both sides at the same time using infra-red energy that is regulated by the ATC. Broiled burgers discharge on the opposite side of the unit with a lightly charbroiled flavor and attractive sear marks on the bottom side.

Buns are heated and grilled in the lower section of the broiler at the same time patties are being broiled in the top section. Buns are loaded (tops on the left, bottoms on the right) on a conveyORIZED bun feeder and automatically carried under an electrically heated platen to the opposite side of the unit. They emerge with a uniformly caramelized, golden brown surface.



MODEL 960 SHOWN

# B. 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. Refer to the Parts and Location section of this manual. 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.

## LEVELING

Make sure that the broiler is level. Factory stands are equipped with adjustable casters.

## HOOD REQUIREMENTS

This appliance must be installed under a ventilation hood of adequate size and capacity:

Model	CFM
960	800
940	800

The hood should be at least 6" (152MM) larger in all dimensions than the appliance top, and be 12" to 18" (305MM - 457MM) 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" (152MM) from the back and 6" (152MM) from the front of the machine. Keep appliance area free from combustibles.

To facilitate disassembly and service of the unit a minimum of 24" (610MM) should be allowed on the control panel (right) side of the broiler, as well as in front of the broiler.

## GAS CONNECTION

At rated BTU capacity, the gas supply should deliver a pressure of at least 6" water column at the broiler connection for natural gas, and 11" water column for propane gas. Incoming gas supply pressure must not exceed 14" water column for either type of gas.

The appliance was shipped from the factory ready for gas supply hook-up to the shutoff valve under the broiler. For disconnect, a manual valve must be located in the gas supply line upstream from the connector.

If the machine is installed on a moveable stand; (1) the installation shall be made with a connector that complies with the Standard for Connectors for Moveable Gas Appliances, ANSI Z21.69-1987, and Addenda, Z21.6a-1989, and a quick disconnect device that complies with the Standard for Quick-Disconnect Devices for Use With Gas Fuel, ANSI Z21.41-1989, and (2) adequate means must be provided to limit the movement of the appliance without depending on the connector and the quick-disconnect device or its associated piping to limit the appliance movement. (See figures on page 6.)

**Note:** Appliance installation must conform with all local codes, or in the absence of local codes, with the National Fuel Gas Code ANSI Z223.1-1988. Check all fittings for gas leaks, including pilot tubing and inlet connections as soon as the appliance is connected to the gas supply.

**Note:** This appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.45 kPa).

**Note:** This appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.45 kPa).

In Canada, installation shall be in accordance with CAN/CGA-B149.1 Natural Gas or CAN/CGA-B149.2 Propane Gas, and local codes where applicable.

By public initiative, the State of California has adopted legislation (Proposition 65) which requires manufacturers of many types of products, including gas appliances, to warn consumers of their products that contain chemicals or produce substances listed by the State of California to either cause cancer, birth defects, or other reproductive harm.

**WARNING: If not installed, operated, and maintained in accordance with the manufacturer's instructions, this product could expose you to substances in fuel, or from fuel combustion which can cause cancer, birth defects, or other reproductive harm.**

### **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. An electrical diagram is located inside the 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 four-pronged grounding plug for your protection against shock hazard. Be sure to plug directly into a properly grounded four-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 lighting procedure. Start broiler and test for proper operation.

# INSTALLING GAS APPLIANCE CONNECTORS AND FLEXIBLE GAS LINES CORRECTLY

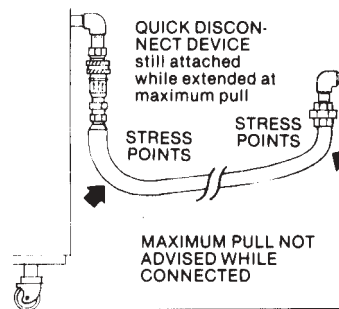
For safety in the kitchen area, and to insure maximum service life, it is vitally important to correctly install connectors.

In order to avoid sharp kinks or excessive bends that could have a damaging effect on the connector, it may be necessary to attach pipe elbows in order to bring the connector into its proper plane. For easy movement of the appliance, the connector should be installed with a "lazy" loop for minimum tension.

**Note: Gas appliances should be disconnected prior to maximum movement. (Minimal movement is possible to connect hose.)**

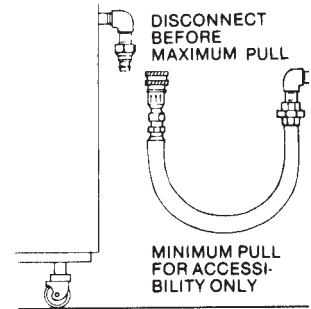
## WRONG

Avoid sharp bends and kinks when pulling equipment away from wall.



## RIGHT

Minimum pull of equipment is permissible for accessibility to quick disconnect device.

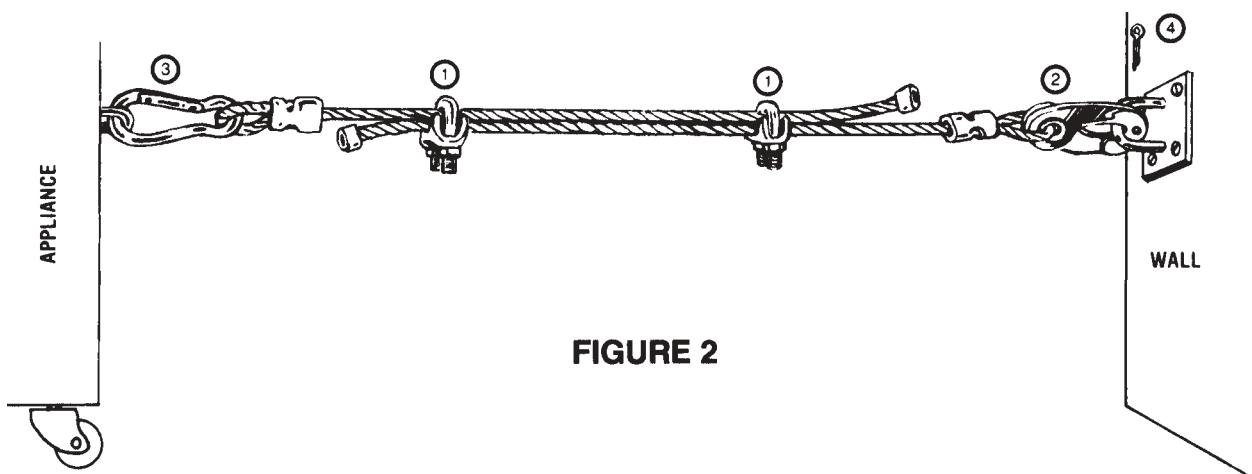


## RESTRAINING DEVICE INSTALLATION AND USE

This high strength restrainer is to be used with all moveable (castered) appliances. It fully complies with American Gas Association requirements. References: Z21.69, Z83.11, and Z21.41 with current revisions. Installation is quick and positive. In Canada, device is in accordance with CAN 1-6.9-M70 Quick Disconnect Devices for use with gas fuel, and CAN 1-6.10-88 metal connectors for gas appliances.

Correct length for any appliance is simply a matter of loosening two adjuster clips (1) and re-tightening. (3" to 6" shorter than appliance connector is desired length.)

Restrainer is made of heavy duty steel cable, with a strong scissor hood (2) at one end, and an equally strong spring hook (3) at the other. Cotter pin (4) is supplied to secure the installation.



**FIGURE 2**

**IMPORTANT: This Restraining Device should be ordered with every connector for Movable appliances.**



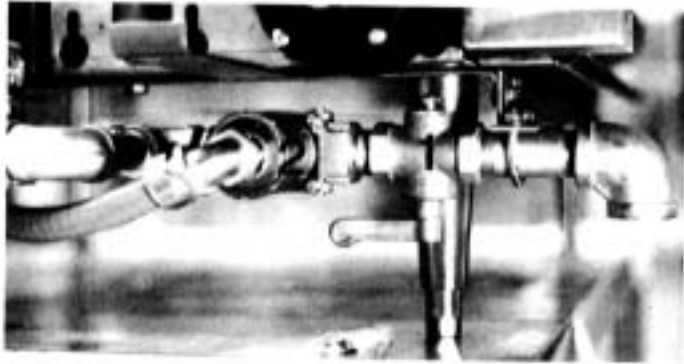
## C. OPERATION

### MODEL 940/960

### CONTROLS AND INDICATORS



- a. **Gas Pressure Gauge.** Pressure readings should agree with those listed on the rating plate on the control box cover. If not, contact your NIECO authorized distributor.
- b. **Fuse.**
- c. **High Gas On (amber).** High Gas pressure solenoid is on.
- d. **Bun Platen Thermostat.** Set between 350° and 400° and vary to desired bun caramelization.
- e. **Pilot Ignitor (orange).** Push with pilot button to light pilot.
- f. **Motor On/Off Switch.** Controls conveyor belt.
- g. **Main Power On/Off Switch and Indicator Light.**
- h. **Motor Speed Control.** Controls conveyor belt speed.
- i. **Upper Pilot Button (red).** Push to light upper pilot.
- j. **Bun Platen Height Adjustment.** Cams on right and left side of unit permit height adjustment to compensate for small bun thickness variations. For major adjustments add or remove spacers from underneath platen mounting brackets on top of platen.
- k. **Lower Pilot Button (red).** Push to light lower pilot.



1. **Main Gas Valve** controls gas input to equipment.
2. **Main Gas Solenoid Valve** opens when broiler main switch is turned on. Valve closes automatically if there is a power failure shutting off gas supply to broiler.

## OPERATING PROCEDURE

In the following section, a brief step-by step sequence of lighting and operating procedures is given. For reference, a condensed lighting procedure is located on top of the control box.

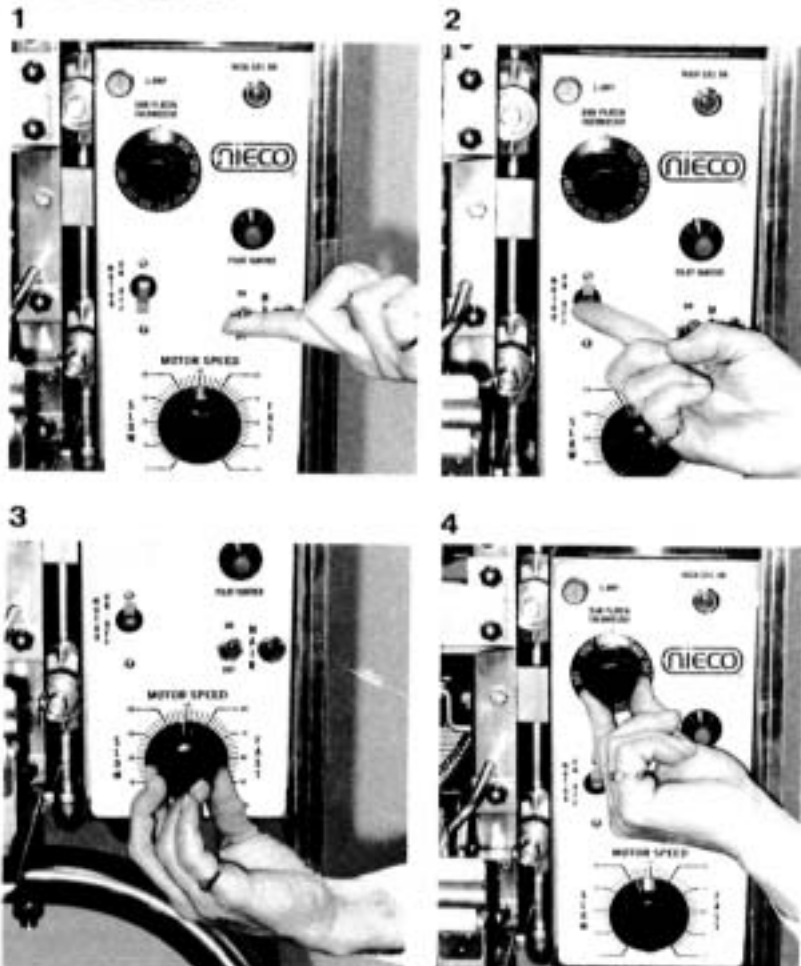
Before starting broiler, ensure that all parts are correctly installed, all controls are off, and the ventilation hood is turned on.

Do not attempt to operate this appliance in the event of a power failure.

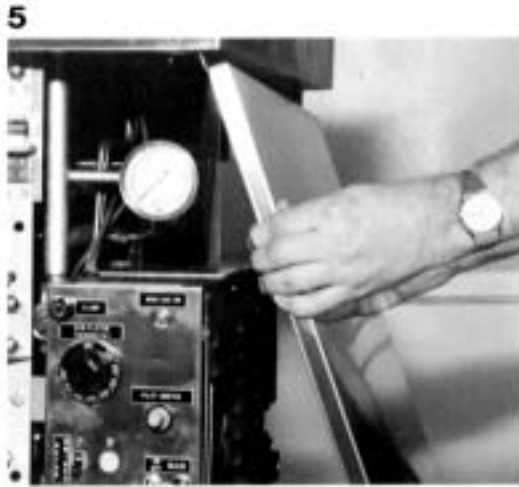
**CAUTION:** Meat stripper blade can cause patty belt damage if incorrectly installed. If relighting broiler, avoid touching heated surfaces.

## STEP-BY-STEP PROCEDURE

1. Turn on MAIN POWER switch.
2. Turn on MOTOR POWER switch.
3. Set MOTOR SPEED control to desired cooking speed. (Use a setting of '50' to start.)
4. Turn on BUN PLATEN THERMOSTAT and set to desired temperature. (Use a setting of 450° F to start.)



5. Remove broiler's **RIGHT SIDE PANEL** so you will have access to pilot light ignition holes. **NOTE:** This may not be necessary if your broiler is equipped with electric **PILOT IGNITOR**.



6. Turn on **MAIN GAS VALVE** located on lower right side of broiler. See **ATC** instructions if applicable.

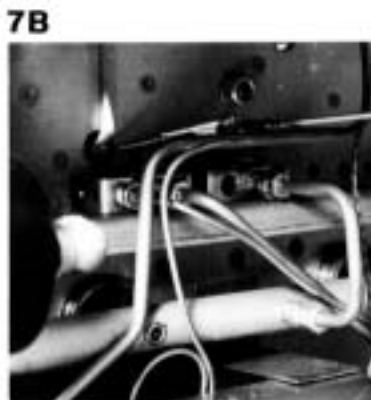


- 7A. Light **LOWER PILOT BURNER** by pressing lower red button (see 7A). Hold flame to pilot ignition hole (see 7B). Or press **PILOT IGNITION** button on models so equipped. (See 7C.) After pilot ignites, hold button in for about 20 seconds to insure pilot will remain ignited.



8. Repeat above procedure with **UPPER PILOT BUTTON** and **UPPER IGNITION HOLE**.

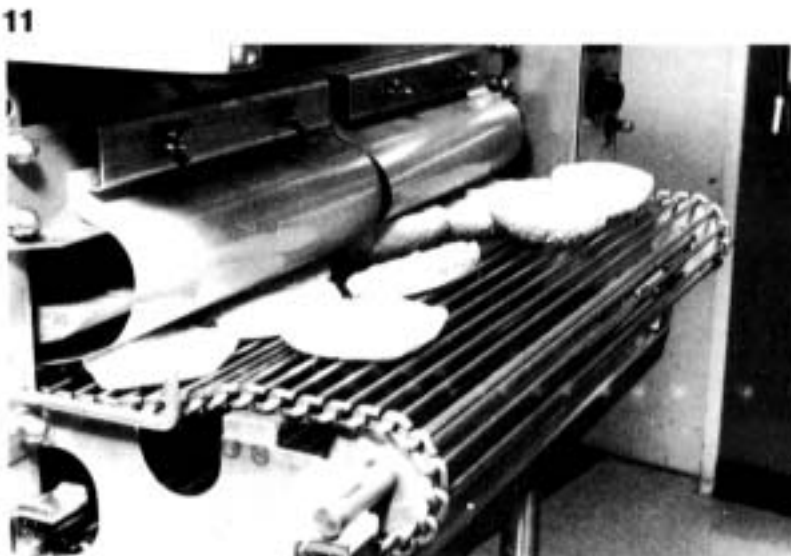
9. Refer to **ATC** calibration instructions.



10. Load frozen hamburger patties shingle-fashion on the SELF-FEEDER TRAY on the upper section of the broiler. Patties will automatically feed themselves onto the rotating patty belt and exit onto the discharge pan.



11. Place the buns directly on the bun belt "cut side" up. Load the tops (crowns) on the right side, and the bottoms (heels) on the left.



## AUTOMATIC TEMPERATURE CONTROL (ATC)

The Nieco Automatic Temperature Control (ATC) is a system that operates the broiler at two different energy input rates; a high rate of energy input for initial warm-up and high store volume periods, and a low rate of energy input for lower store volume periods. This dual input rate and the automatic temperature control allow the broiler to operate at a very consistent temperature throughout the day and thus provide a very consistently broiled product. Since the broiler will remain on the lower input rate most of the day (approximately 85% of the time), a substantial energy savings will be realized.

The ATC consists of two gas pressure regulators piped in parallel, a solenoid valve in series with the high gas pressure regulator, a probe to sense temperature at the loading end of the broiler, and a control unit which is operated by signals from the probe. The control unit causes the solenoid valve to open and close. When open, the broiler is in high gas pressure (high energy input).

Under heavy product loads the temperature sensed by the ATC probe will be low enough to cause the ATC to open the solenoid valve. When the solenoid is open, the amber indicator light on the front panel will be on. The ATC will keep the broiler in high gas pressure until the temperature sensed by the ATC probe returns to normal.



## HOW TO CALIBRATE THE ATC

1. Loosen control knob lock screw and set ATC control knob to 600°F.
2. Turn on main ON/OFF switch.
3. Turn on motor ON/OFF switch and set motor speed control so that the broil belt is travelling at the correct speed for the product.
4. Light the broiler following the lighting procedure in the manual and on the broiler lighting instruction plate.
5. Broiler should be in high gas pressure at this time (5" W.C. natural gas; 11" W.C. propane).
6. When the broiler reaches 600°F, the high gas will be shut off (amber light out) and the broiler will be in low pressure (3" W.C. nat. gas; 8" W.C. propane.).
7. Forty minutes after lighting the broiler, slowly turn the ATC control knob up (clockwise) until the amber light (high gas) comes on (photo A).
8. As soon as the high gas comes on, slowly turn the ATC control knob down (counterclockwise) until the setting is 10-20°F **BELOW** the point where the high gas came on.
9. Tighten control knob lock screw (photo B).
10. The control knob set point may need a minor adjustment the first day of operation in order to maintain the 10-20°F below the normal idle temperature. Once adjustment is correct, it need not be changed from day to day unless the broiler operating conditions change.



Photo A



Photo B

## WARNING

Never set the ATC control knob at a setting high enough to keep the broiler in high gas pressure. The machine may be damaged, energy cost will be much higher, and some broiler parts may wear out prematurely.

## SHUTDOWN PROCEDURE

**FOR EMERGENCY SHUTDOWN, TURN MAIN POWER SWITCH AND GAS SUPPLY VALVE OFF.**

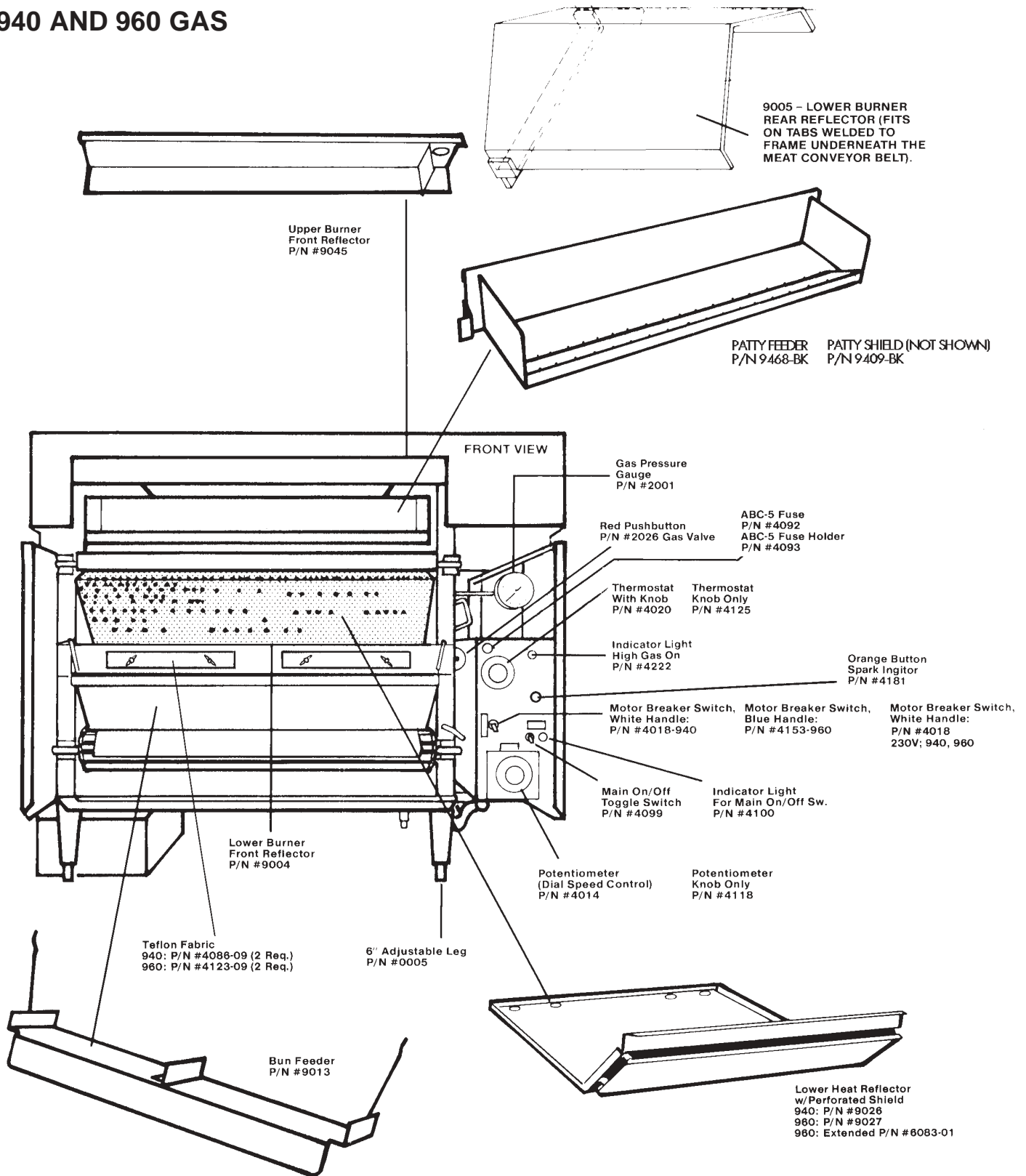
For planned shutdowns, perform the following procedure:

1. Clear machine of all food products.
2. Turn main power switch off.
3. Turn motor power switches off.
4. Turn gas supply valve off.

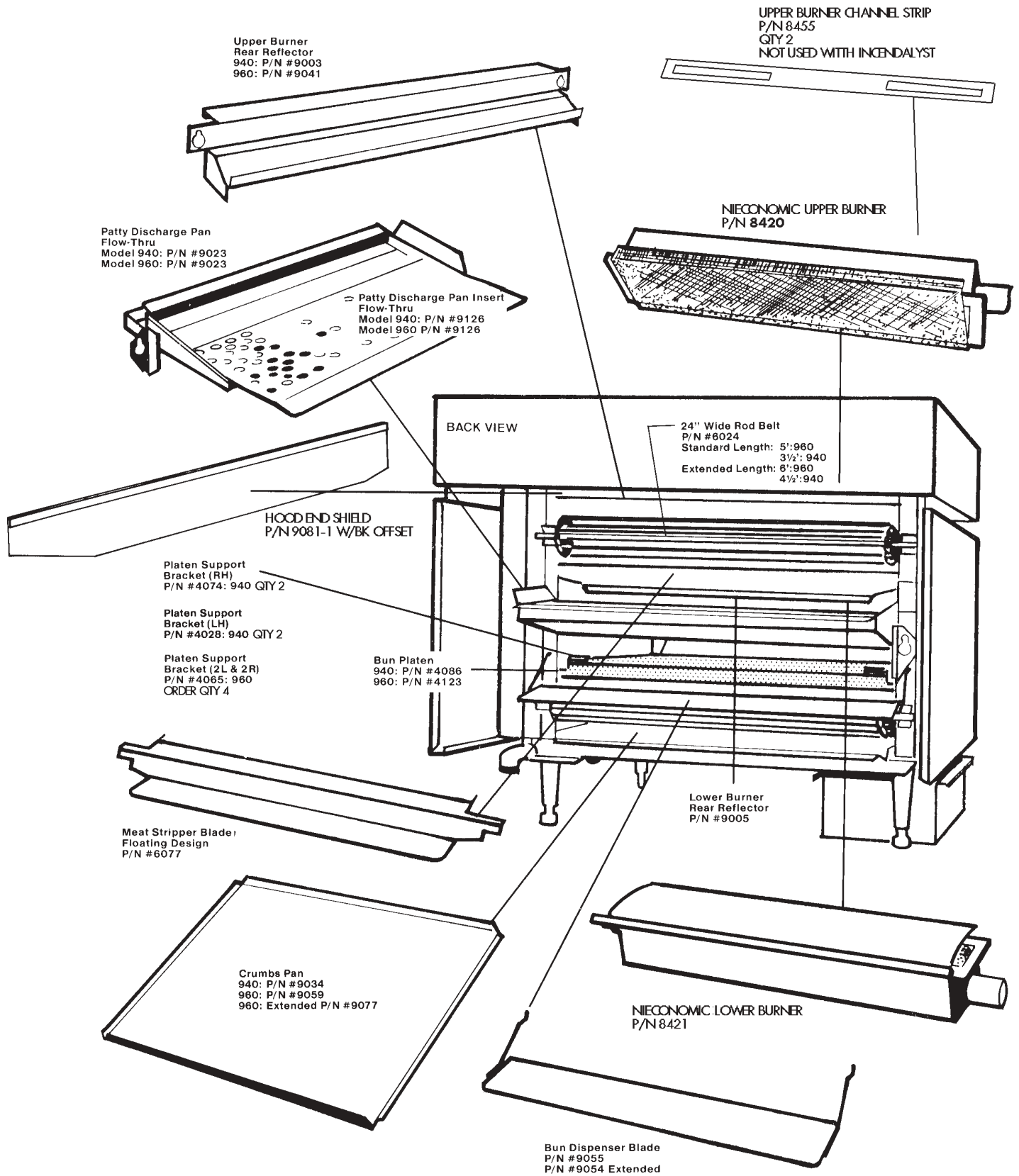
**CAUTION:** Always turn machine completely off before pulling power plug.

**CAUTION:** If a flexible gas line is used it must be disconnected before moving machine.

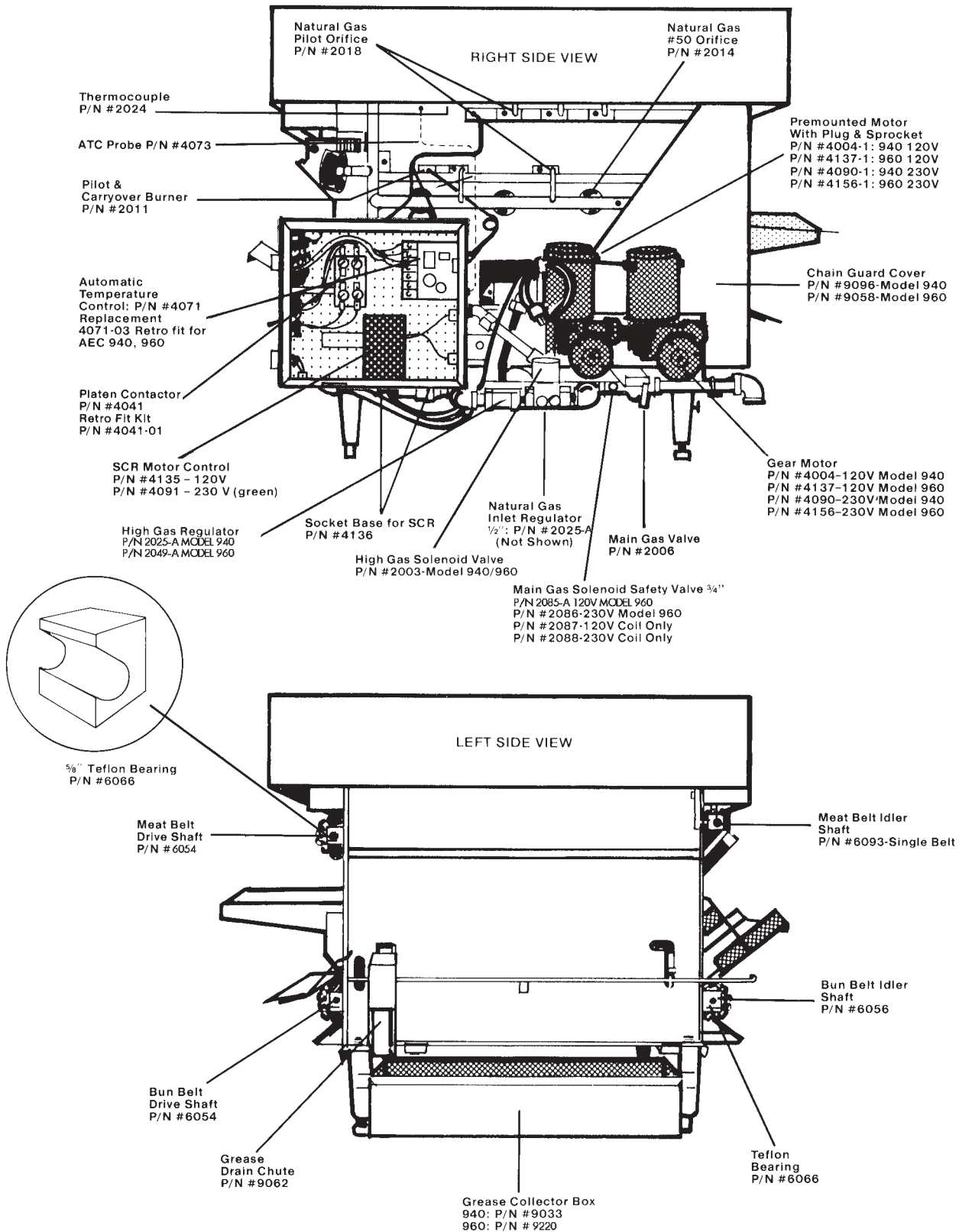
# D. PARTS AND LOCATION 940 AND 960 GAS



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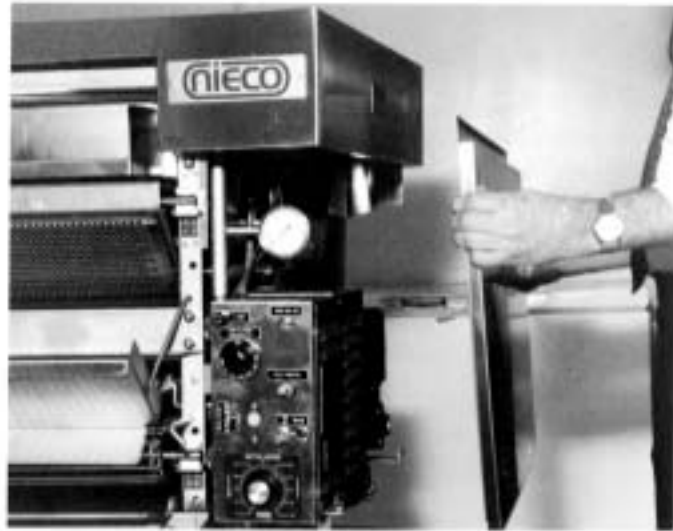
## E. ASSEMBLY/DISASSEMBLY & CLEANING MODEL 940/960

In the following section a brief step-by-step sequence of the procedures for broiler disassembly and cleaning is given. For additional information or repair, contact your Nieco authorized distributor.

If a flexible gas line, quick disconnect coupling and restraining device are used (see installation section for correct type and installation) to connect the broiler to the gas supply, any time the restraining device is disconnected it must be reconnected after moving the broiler back to its originally installed position, and the casters locked before operation of the broiler.

1. Turn the machine off (all electrical power switches, including MAIN POWER and the gas); wait until the machine is cool before attempting to disassemble or clean.
2. Remove SIDE PANELS by lifting up and out; clean daily with soap and water.
3. Remove HOOD END FLAP by lifting up and out; clean daily with soap and water.
4. Remove TOP HOOD by lifting up; clean daily with soap and water.

2



3



4



5. Remove GREASE DRAIN CHUTE and GREASE COLLECTOR BOX; clean daily with soap and water.

5A.



5B.



6. Remove REAR HEAT SHIELD located above patty belt; clean with soap and water.

6



7. Remove PATTY CATCH PAN and INSERT; clean daily with soap and water.

7



8. Remove BUN DISPENSER BLADE; clean daily with soap and water.

8



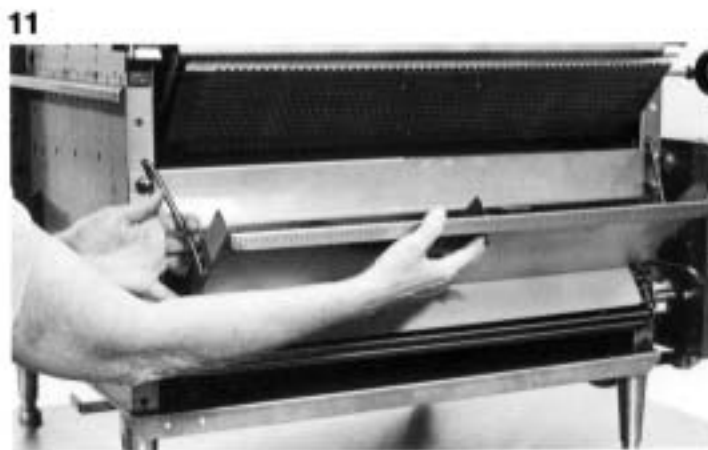
9. Remove MEAT STRIPPER BLADE; clean daily with soap and water.



10. Remove CRUMB TRAY from rear of machine; clean daily with soap and water.



11. Remove BUN FEEDER from front of machine; clean daily with soap and water.



12. Remove PATTY FEEDER from front of machine; clean daily with soap and water.



13. Remove GREASE DRIP PAN from front of machine; clean daily with soap and water.

14. Remove LOWER BURNER REAR REFLECTOR; clean daily with soap and water.

15. Remove T-bar which is located between top burners. (Not used with 940, propane or disposable burners.)

16. Remove UPPER FRONT REFLECTOR by lifting up and out; clean daily with soap and water.

17. Remove UPPER BURNERS and clean weekly as follows:

a. Remove REVERBERATOR and clean with a stiff bristle brush. REPLACE REVERBERATOR AT FIRST SIGN OF WIRE BREAKAGE.

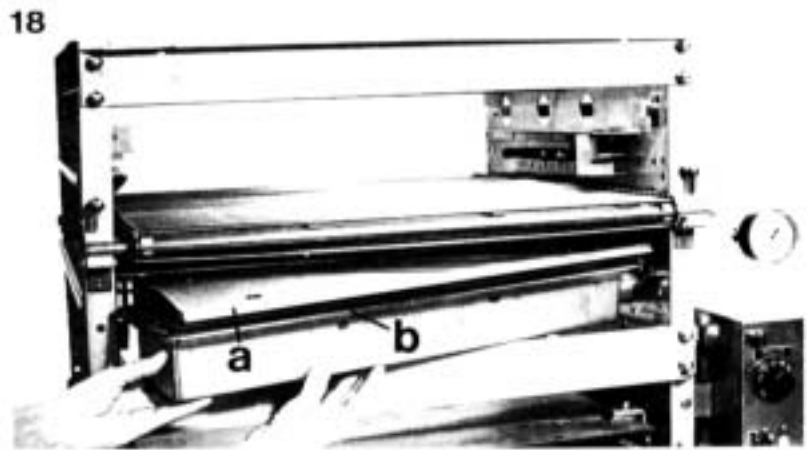
b. Clean DISTRIBUTOR SCREEN on burner with a stiff bristle brush. Always hold burner facing down while brushing to prevent particles from dropping inside the burner box.

c. Clean burner VENTURI with stiff bristle brush; hold burner so particles will not drop inside.

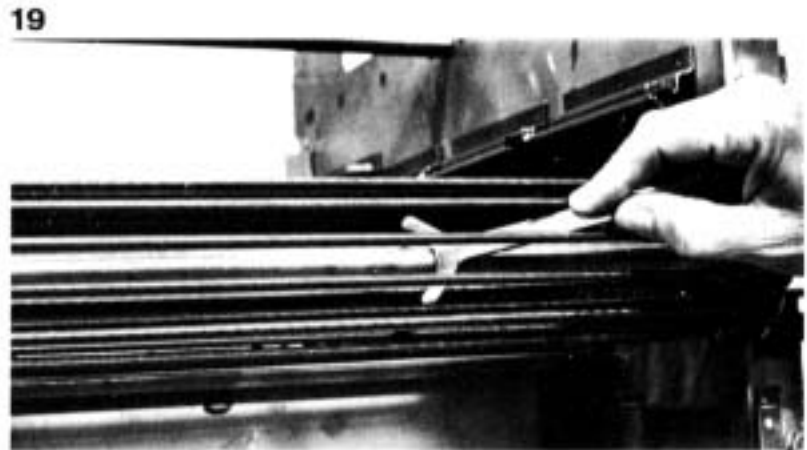




18. Bottom burners should be cleaned as follows:
  - a. Remove PROTECTIVE SHIELD and clean daily with soap and water or carbonized grease remover (oven cleaner).
  - b. Clean DISTRIBUTOR SCREEN and VENTURI weekly in the same fashion as the upper burners (see 17b and 17c).

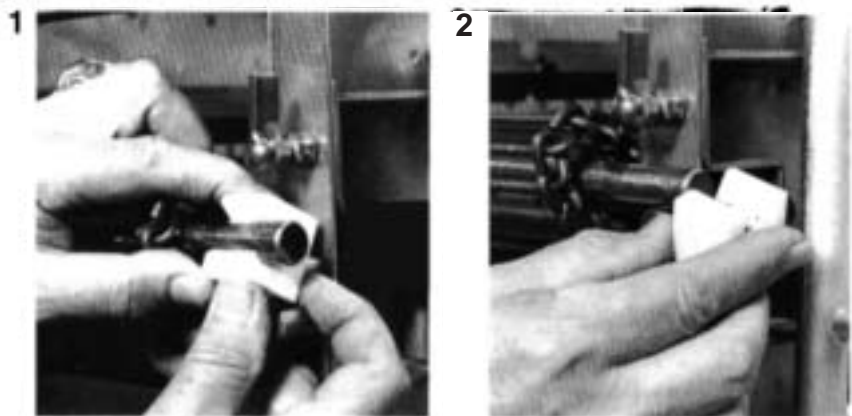
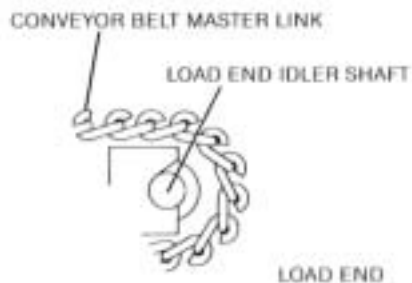


19. Clean PATTY BELT SHAFT daily. It can be scraped clean of drippings and carbon with the special tool supplied with the broiler.
20. To reassemble the broiler, repeat the preceding sequence in reverse order.



## F. CONVEYOR BELT REMOVAL

Run belt until Master Link is located near the Idler Shaft.



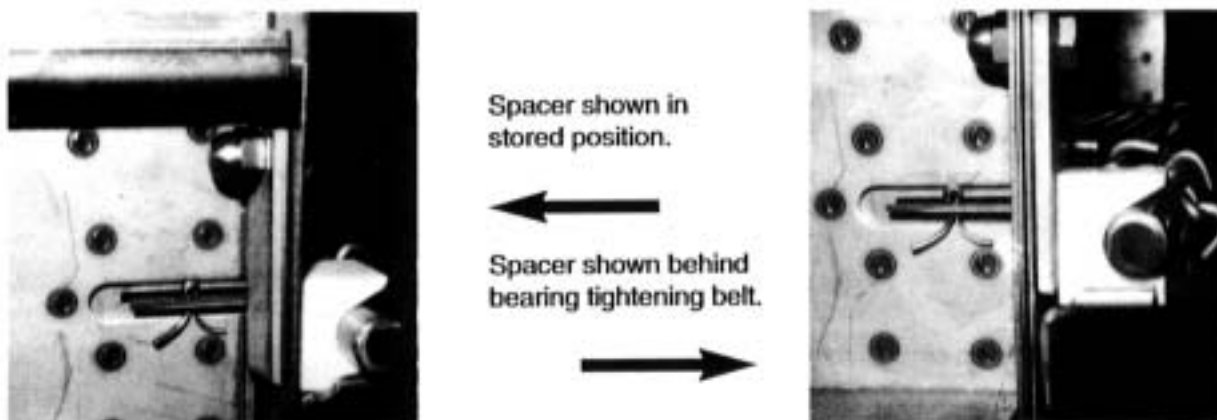
- 1 Pull out on shaft and tilt Bearing Block up.
- 2 Slide Bearing Block out from under the shaft.
- 3 Unhook the Master Link.
- 4 To reassemble, reverse the procedure.



## G. CONVEYOR BELT TENSION

Maintain proper tension on the patty belt to prevent jamming.

Bearing spacers (pictured below) are supplied with the broiler to make minor tension adjustments. Major tension adjustments are made by removing one or more links from the patty belt.



## CONDENSED CLEANING INSTRUCTIONS

**CAUTION:** Do not salt food product while it is still on the patty belt. Salt rapidly corrodes stainless steel parts. Season product after removing from broiler.

If a flexible gas line, quick disconnect coupling and restraining device are used (see installation section for correct type and installation) to connect the broiler to the gas supply, any time the restraining device is disconnected it must be reconnected after moving the broiler back to its originally installed position, and the casters locked before operation of the broiler.

### DAILY CLEANING

Shut down machine and let equipment cool before handling heated assemblies.

1. SHEET METAL PARTS. Remove all trays, drip pans, stripper blades and side panels. Wash in hot soapy water or other approved degreasers. Sanitize all parts that come into contact with food.
2. LOWER BURNER PROTECTIVE SHIELDS. Use an approved degreaser to clean shields of built up carbon.
3. BUN BELT. Wipe with a clean towel.
4. BUN PLATEN. Clean teflon sheets with a clean towel.
5. PATTY BELT. Brush residue with a nylon bristle brush.

### WEEKLY CLEANING

1. BURNERS:
  - a. WIRE MESH. Remove burners, hold in an upright position, and lightly brush with a stiff bristle brush (not wire).
  - b. VENTURI. Clean grease buildup from the venturi with a brush or towel.
  - c. REVERBERATOR. (Wire screen that covers the top burners) Remove all grease buildup with multi-purpose detergent. Replace if a hole develops in the mesh.
2. ORIFICES. While burners are removed, clean orifices with a pipe cleaner to remove grease deposits.
3. SHAFTS. Clean in place with shaft cleaning tool provided with broiler.
4. PLATEN. Inspect teflon sheets. Replace as required.

## H. Troubleshooting Guide

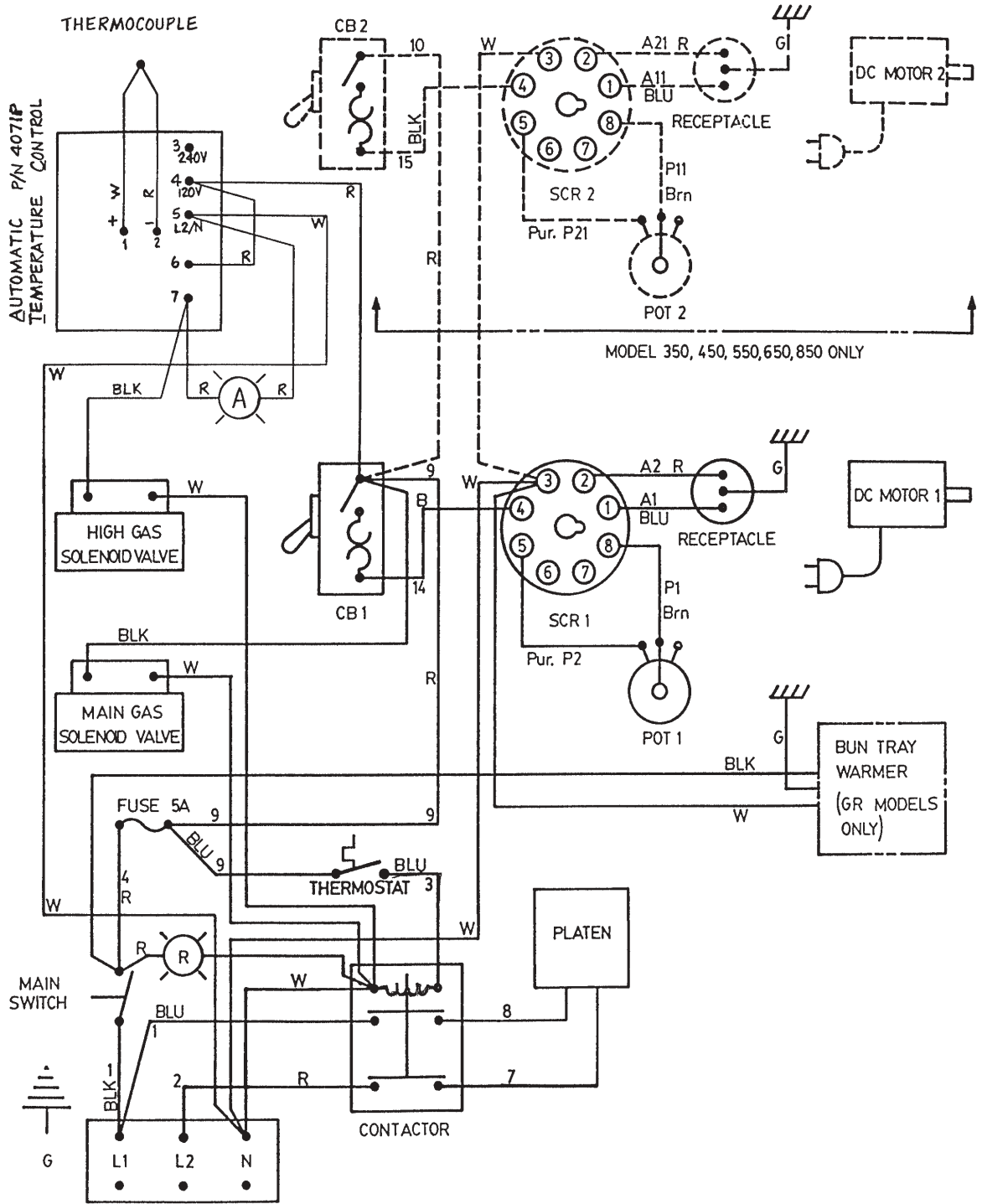
PROBLEM	PROBABLE CAUSES	SOLUTION
Pilot Burners won't light.	<ol style="list-style-type: none"> <li>1. Pilot Burner dirty, or orifice plugged.</li> <li>2. Push button valve not fully depressed.</li> <li>3. Air in pilot line.</li> <li>4. Electric spark ignitor dislocated.</li> <li>5. Electric power not on, or machine not plugged in.</li> <li>6. Gas not hooked up or on.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean pilot burner, replace orifice.</li> <li>2. Repeat start-up procedure.</li> <li>3. Purge line by holding down red push button before igniting.</li> <li>4. Position white electrode so the tip is 1/4" from the pilot burner, or light manually.</li> <li>5. Plug in/turn on.</li> <li>6. Check Gas Supply</li> </ol>
Pilots won't stay lit when push button is released.	<ol style="list-style-type: none"> <li>1. Thermocouple not hot yet.</li> <li>2. Weak pilot flame.</li> <li>3. Thermocouple dirty or defective.</li> <li>4. Push button power unit defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Repeat starting procedure, and hold the push button in longer.</li> <li>2. See Below.</li> <li>3. Clean or replace.</li> <li>4. Replace.</li> </ol>
Pilot flame weak or yellow.	<ol style="list-style-type: none"> <li>1. Dirty pilot or orifice.</li> <li>2. Pilot tubing plugged or pinched off.</li> <li>3. Incoming gas pressure too low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean or replace.</li> <li>2. Check line. Pilot tubing can be removed with a wrench.</li> <li>3. Adjust pressure regulator.</li> </ol>
Main Burners won't light, or they go out during operation.	<ol style="list-style-type: none"> <li>1. Pilot flame too small.</li> <li>2. Air draft blowing pilot flame out.</li> <li>3. Electrical supply interruption.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace pilot orifice. See Above.</li> <li>2. Check for drafts.</li> <li>3. Secure power supply.</li> </ol>
Burner appears dim (cooler).	<ol style="list-style-type: none"> <li>1. Burner orifices dirty.</li> <li>2. Gas pressure too low.</li> <li>3. Gas line partially blocked.</li> <li>4. Pressure regulator defective.</li> <li>5. Burners not installed properly.</li> <li>6. Burner venturi dirty.</li> <li>7. Main gas valve partially closed.</li> <li>8. Burner distributor screen dirty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean or replace.</li> <li>2. Adjust pressure regulator.</li> <li>3. Check line and clear.</li> <li>4. Replace.</li> <li>5. Remove and install properly.</li> <li>6. Clean. See Cleaning Instructions.</li> <li>7. Open fully so that handle is in line with the valve.</li> <li>8. Clean.</li> </ol>
Burners backfire or sputter.	<ol style="list-style-type: none"> <li>1. Gas pressure too high.</li> <li>2. Burners have gotten wet.</li> <li>3. Burner venturi dirty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust pressure regulator.</li> <li>2. Dry thoroughly, replace gasket.</li> <li>3. Clean.</li> </ol>
Conveyor belts won't advance.	<ol style="list-style-type: none"> <li>1. Machine not plugged in.</li> <li>2. Wall circuit breaker off.</li> <li>3. Motor control switch off.</li> <li>4. Motor speed control not set properly.</li> <li>5. Speed control pot. or SCR defective.</li> <li>6. Drive chain broken.</li> <li>7. Gear motor defective.</li> <li>8. Loose or broken wire.</li> <li>9. Motor unplugged.</li> <li>10. Drive sprocket loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug in.</li> <li>2. Turn on.</li> <li>3. Turn on.</li> <li>4. Reset cook time.</li> <li>5. Replace.</li> <li>6. Replace or repair.</li> <li>7. Replace.</li> <li>8. Tighten or replace.</li> <li>9. Plug in.</li> <li>10. Tighten sprocket set screw.</li> </ol>

PROBLEM	PROBABLE CAUSES	SOLUTION
Motor control switch trips.	<ol style="list-style-type: none"> <li>1. Conveyor belt jammed.</li> <li>2. Switch defective.</li> <li>3. Drive chain binding.</li> <li>4. Shorted wire to motor.</li> <li>5. Gear motor defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove jam, reset switch.</li> <li>2. Replace.</li> <li>3. Adjust tension of chain.</li> <li>4. Repair wire.</li> <li>5. Replace.</li> </ol>
Conveyor belt speeds are erratic.	<ol style="list-style-type: none"> <li>1. Drive chain binding.</li> <li>2. Gear motor defective.</li> <li>3. Loose drive sprockets.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust tension of chain.</li> <li>2. Replace.</li> <li>3. Tighten set screws.</li> </ol>
Broiled product over or under cooked.	<ol style="list-style-type: none"> <li>1. Wrong conveyor belt speed.</li> <li>2. Product temperature not consistent.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reset cook time.</li> <li>2. Be sure refrigerators and freezers are working and that product temperature is consistent.</li> </ol>
Bun Platen won't heat.	<ol style="list-style-type: none"> <li>1. Wall circuit breaker off.</li> <li>2. Main power switch off.</li> <li>3. Defective thermostat.</li> <li>4. Defective platen contactor.</li> <li>5. Loose or broken wire.</li> <li>6. Machine not plugged in.</li> <li>7. Thermostat turned off.</li> <li>8. Inadequate voltage.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on.</li> <li>2. Turn on.</li> <li>3. Replace.</li> <li>4. Replace.</li> <li>5. Tighten or repair.</li> <li>6. Plug in.</li> <li>7. Turn on.</li> <li>8. Check power supply.</li> </ol>
Bun platen gets warm but not hot.	<ol style="list-style-type: none"> <li>1. Thermostat setting too low.</li> <li>2. Thermostat defective.</li> <li>3. Platen defective.</li> <li>4. Power cord not fully plugged in.</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase setting.</li> <li>2. Replace.</li> <li>3. Replace.</li> <li>4. Plug in and twist.</li> </ol>
Bun platen gets too hot.	<ol style="list-style-type: none"> <li>1. Thermostat setting too high.</li> <li>2. Sensing bulb not fully inserted into platen.</li> <li>3. Thermostat defective.</li> <li>4. Water in control.</li> </ol>	<ol style="list-style-type: none"> <li>1. Decrease setting.</li> <li>2. Insert bulb fully into platen. Bulb is located on the control box side of the platen.</li> <li>3. Replace.</li> <li>4. Allow to dry then cycle off and on.</li> </ol>
Hamburger patties stick to belt.	<ol style="list-style-type: none"> <li>1. Stripper blades not adjusted properly.</li> <li>2. Product under broiled.</li> <li>3. Product too lean.</li> <li>4. Product too thin.</li> <li>5. Burners not hot enough.</li> <li>6. Heat reflectors not installed, or installed improperly.</li> <li>7. Patty feeder adjusted too low.</li> <li>8. Patty belt too tight.</li> <li>9. Warped links in the patty belt.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust.</li> <li>2. Slow belt speed.</li> <li>3. Check meat - 23% fat, scored both sides.</li> <li>4. Try thicker patties.</li> <li>5. Check burners, see above.</li> <li>6. Be sure all reflectors are installed properly. Refer to parts and location section.</li> <li>7. Raise by moving the hanging bolts up.</li> <li>8. Loosen tension.</li> <li>9. Replace warped links.</li> </ol>



# WIRING DIAGRAM

## Models 940 & 960 Gas - DOMESTIC

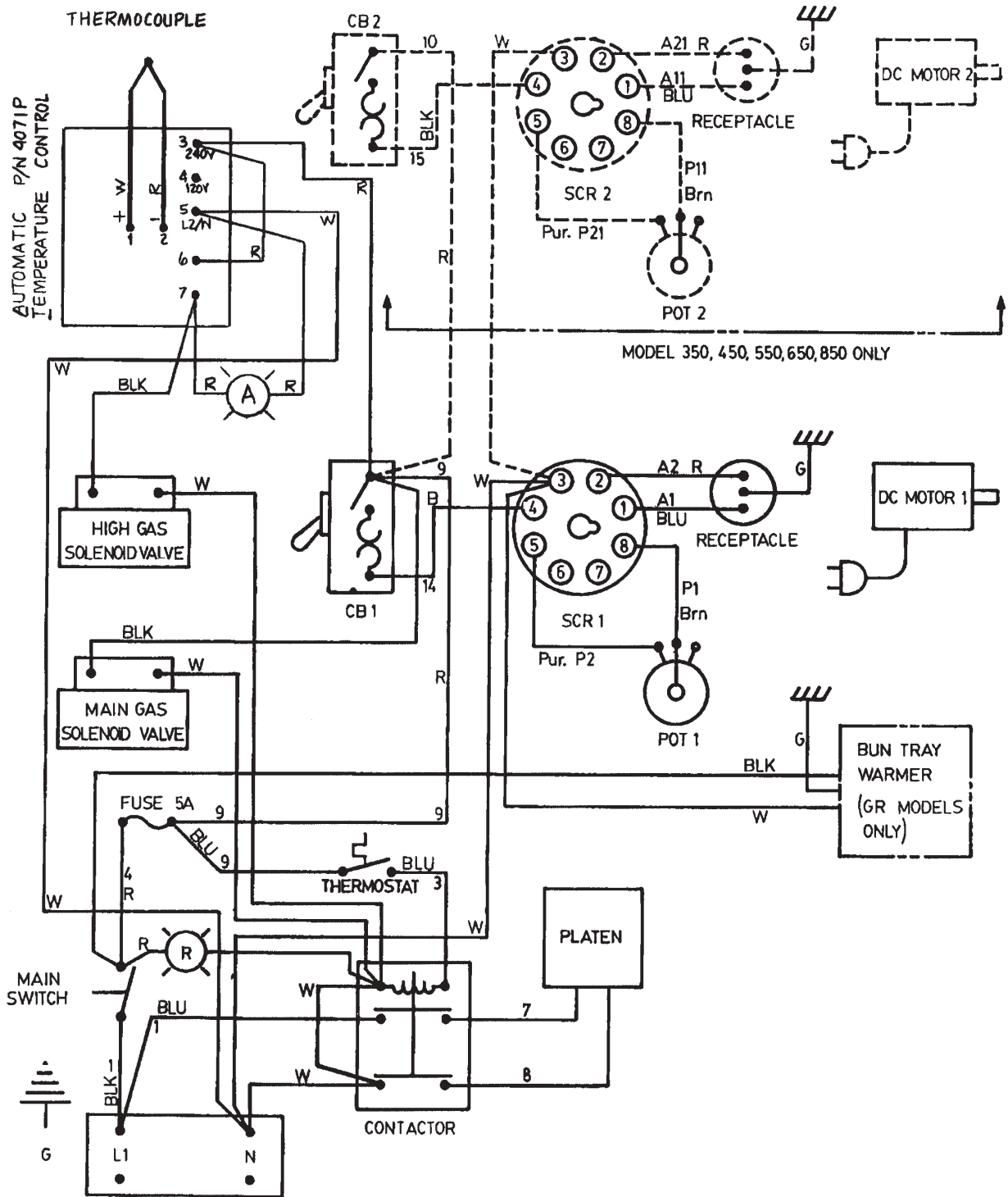


208-240/120 V, 1Ø, 17.5 A

C	A.T.C. CHANGED TO 120/240V VERSION	2-23-93	DZ
REV.	DESCRIPTION	DATE	BY
		8-10-90	
		SCALE	REV
		JOB NO	C
		5721	

# WIRING DIAGRAM

## Models 940 & 960 Gas - EXPORT



200-240 V, 1Ø, 17.5A

12-2-93		DZ	
DATE		BY	
DRAWN BY: <u>ZPVA</u>	SHEET _____ OF _____		
DATE: <u>8-10-90</u>	DRAWING NO. _____		
SCALE	5720		REV: <u>C</u>
JOB NO.			

**NOTES:**



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