



AUTOMATIC
FOODSERVICE
EQUIPMENT

FLEXI CHEF SYSTEM
AUTOMATIC GAS BROILER
MODEL 1015A GAS

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, service or 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.

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A. GENERAL INFORMATION

Model 1015A



DESCRIPTION

The Nieco Flexi-Chef system is an automatic broiler which offers an operator the option of a wide variety of cooking functions in a single piece of cooking equipment. The advantage of the Flexi-Chef System is its ability to be customized at the factory to meet a customers specific cooking needs.

Nieco developed the Flexi-Chef to answer the food service industry need for greater versatility from automatic equipment.

The Model 1015A is equipped with up to three independently controlled cooking belts and four upper radiant gas burners, and two convection gas burners on the bottom. This unique combination of using radiant and convection heat to broil, gives the operator great control over the product as well as producing a consistently broiled product every time.

B. INSTALLATION

PRE-INSTALLATION

Uncrate the Flexi-Chef, 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 Flexi-Chef was shipped with a tubular stand, refer to separate tubular stand assembly instructions.

The Flexi-Chef should be placed on a strong flat stand or table.

Note: The four legs of the broiler should be installed in safety clips or rings on the counter or table to prevent the broiler from shifting during operation or cleaning.

LEVELING

Make sure that the broiler is level. Level the machine by turning the base of the adjustable legs with a wrench. 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 | CMH |
|-------|------|------|
| 1015A | 1000 | 1770 |

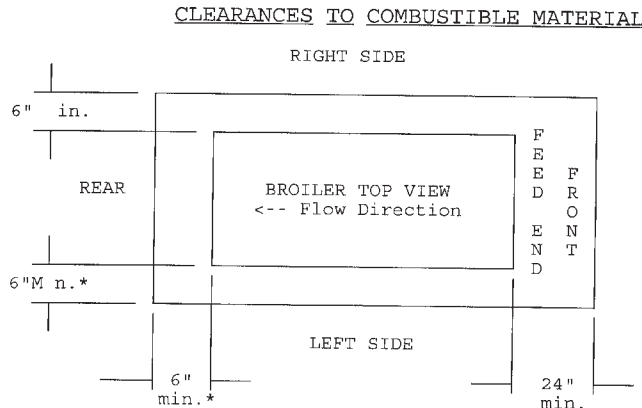
The hood should be at least 6" (152MM) larger in all dimensions than the appliance top, and be 12" to 18" (305MM - 457MM) above the top. Do not obstruct the flow of combustion and ventilation air. An adequate air supply must be available for safe and proper operation.

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 on the feed and discharge end 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 Z223.1-1995. 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: If this appliance is equipped with a three prong (grounding) plug for your protection against shock hazard, it should be plugged into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this 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

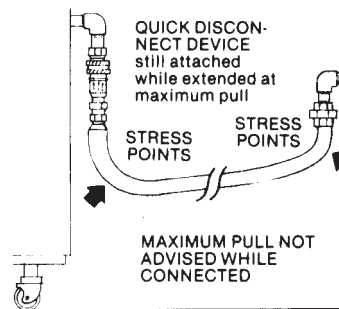
For safety in the kitchen area, and to insure maximum service life, it is vitally important to correctly install connectors.

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.)

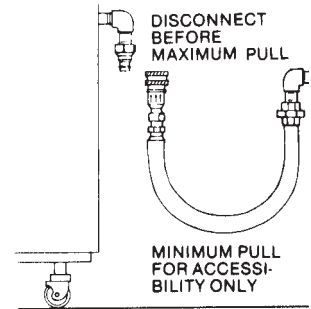
WRONG

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



RIGHT

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



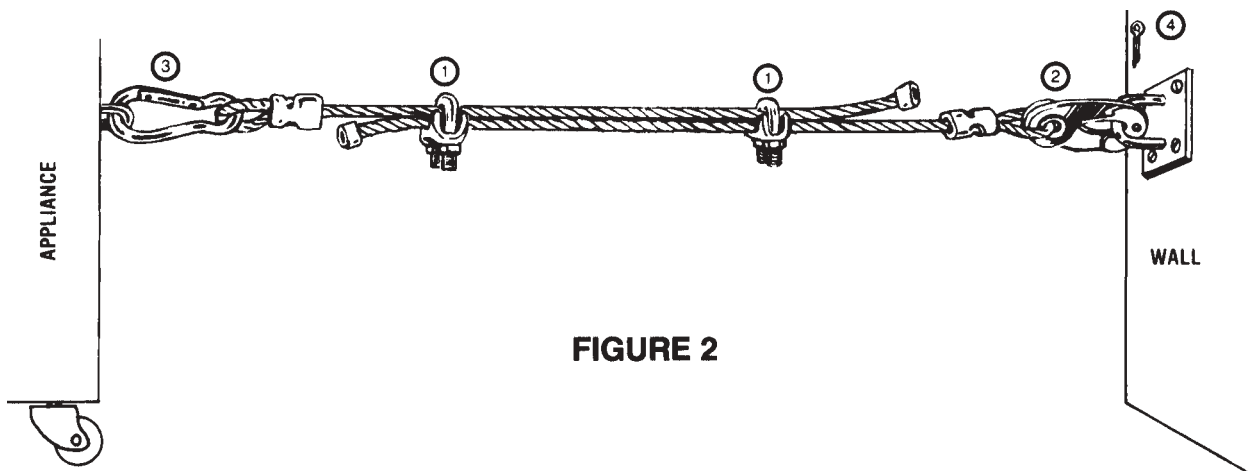
RESTRAINING DEVICE INSTALLATION AND USE

This high strength restrainer is to be used with all moveable (castered) appliances. It must fully comply with International Approval Services 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.)

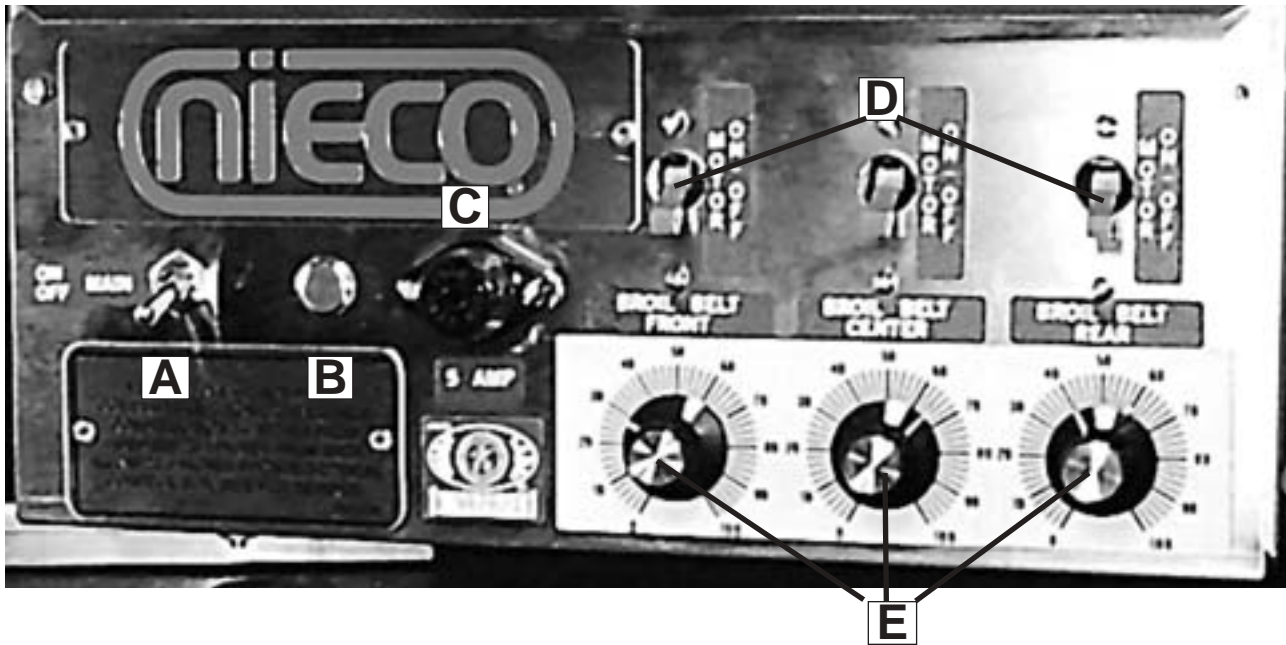
Restrainer is made of heavy duty steel cable, with a strong scissor hood (2) at one end, and an equally strong spring hook (3) at the other. Cotter pin (4) is supplied to secure the installation.

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



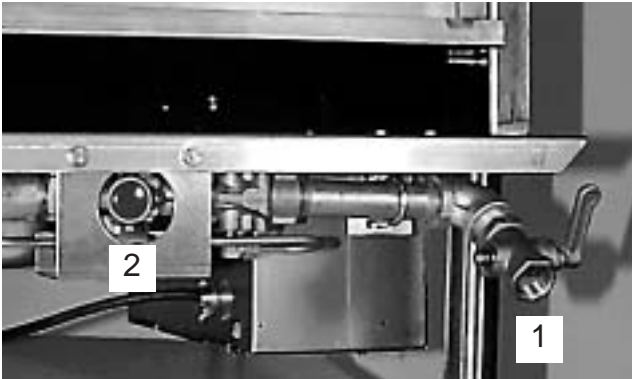
C. OPERATION

Controls and Indicators



- A. Main On-Off Switch
- B. Red Indicating Light
- C. Fuse
- D. Motor Breaker/Switch
- E. Dial Speed Controls

OPERATING PROCEDURE



1. **Main Gas Valve** controls gas input to equipment

2. **Red Pushbutton Valve** - Use to ignite upper and lower burners (see ignition procedures).

STEP BY STEP LIGHTING PROCEDURES

1. Open the Main Gas Valve

2. Turn on MAIN POWER SWITCH. This will start the Automatic Spark Ignitor. NOTE: An audible "ticking" sound will be heard.

2



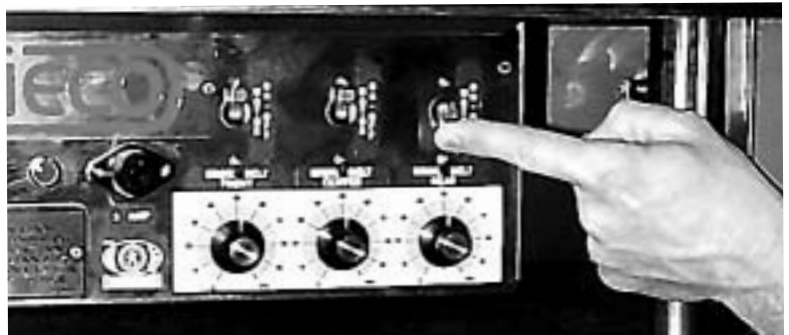
3. Push and hold the Red Pushbutton Valve for 30 seconds. Continue to hold for 15 seconds after the "ticking" sound stops and main pilots have lit. Release Red Pushbutton Valve to ignite the Carryover Pilots and the Main Burners.

3

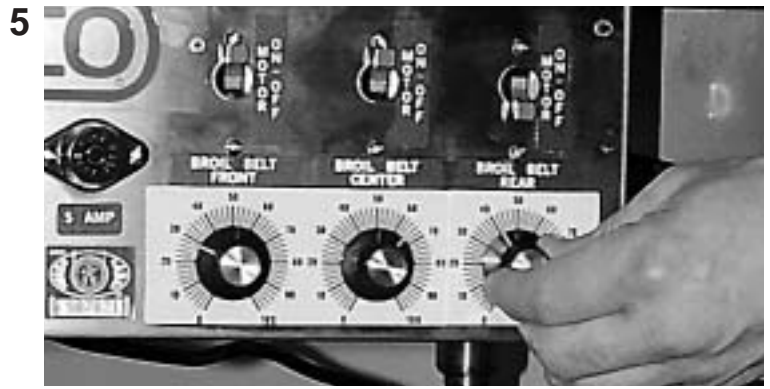


4. Turn on Motor Switches.

4



5. Set Motor Speed Controls to correct settings.



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 motor switch(es) off.
- 3) Turn the Main Power Switch off.
- 4) Close Main Gas Valve.

CAUTION: Always turn machine off completely before disconnecting power plug.

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

D. ASSEMBLY/DISASSEMBLY AND CLEANING

If this appliance is connected to the gas supply by a flexible gas line and quick disconnect coupling, it must also be connected to a restraining device (see installation instructions). If the appliance is moved and then returned to its original position, it must be reconnected to the restraining device and the casters locked before resuming operation.

1. Clear machine of all food products. Allow the machine to run empty for ten minutes in order to burn off the residue on the belt. Turn Main Power and Motor switches off. Allow the machine to cool before you disassemble.

1

NOT PICTURED

2. Remove the Side Panels by lifting up and off. Wipe clean with a degreaser.

2



3. Remove feed end drip pan.

3



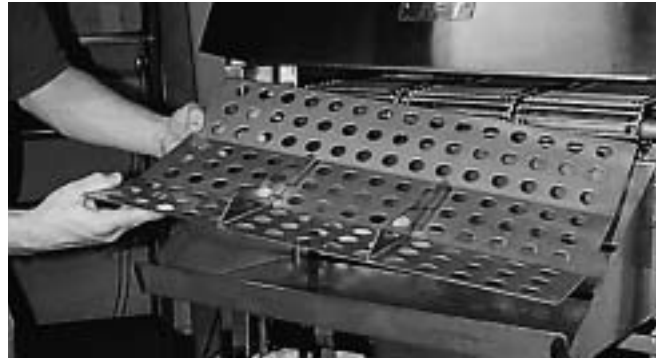
4. Remove stripper blades.

4



5. Remove discharge pan inserts.

5



6. Remove discharge pan hanging shield.

6



7. Remove discharge pan.

7



8. Remove grease drip pan by sliding it out of the feed end of the machine.

8



9. Remove the grease box.

9



WEEKLY CLEANING

10. Remove burner access hole cover.

10



11. Remove the charcoal tray insert and rinse. Replace ceramics as required.

11



12. Remove lower burner shields and clean with an approved degreaser.

12



13. Remove the Lower Convection Burners and clean with a stiff nylon brush. DO NOT SOAK IN WATER.

13



14. Remove the Convection Burner Sub-Reflector and clean with an approved degreaser.

14



15. Remove the Upper Burners and clean as follows: (see below)

15



A. Remove Reverberator and clean with a stiff bristle brush.

B. Clean Distributor Screen with a stiff bristle brush.

C. Clean Burner Venturi with a stiff bristle brush.

REPLACE REVERBERATOR AT THE FIRST SIGN OF BREAKAGE.

HOLD BURNER WITH THE SCREEN FACING DOWN WHILE BRUSHING.
This prevents particles from dropping down and lodging inside the burner.

HOLD BURNERS SO THAT PARTICLES WILL NOT DROP INSIDE.



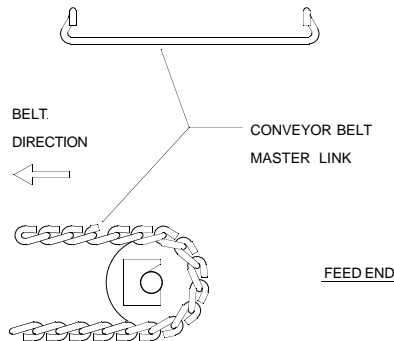
DO NOT SOAK OR SUBMERGE THE BURNERS IN WATER. WATER WILL DAMAGE THE GASKET SEAL, CAUSING IMPROPER BURNER PERFORMANCE.

14. Wipe off the frame and other internal parts of the broiler. Do not spray anything (i.e. oven cleaner) inside the broiler.

E. CONVEYOR BELT REMOVAL

Before beginning, notice the way the belt runs through the broiler. Also notice the direction the knuckles face. Be sure to re-assemble in the same way.

1. Run belt until the Master Link is near the front idler shaft. 1



2. Lift shaft and Teflon Blocks up, and slide the blocks out. 2



3. Unhook the Master Link. 3



To reassemble, reverse the procedure. Be sure to reassemble the belt with the knuckle opening facing away from the direction of travel.



Don't Let Your Broiler Fail On Your Busiest Friday Night!

Nieco recommends that your stores carry the following preventative maintenance parts. These parts, if they fail, can shut down your broiler! Keep these few parts on hand to help prevent down time.

- | | |
|----------------------------|-------------|
| • (1) 60" Thermocouple: | P/N 2012 |
| • (1 pair) Motor Brushes: | P/N 4145-06 |
| • (1) 5-AMP Fuse: | P/N 4602 |
| • (1) Motor: | P/N 4144 |
| • (1) SCR Control: | P/N 4135 |
| • (1) SCR Base: | P/N 4136 |
| • (1) Motor Breaker Switch | P/N 4094 |
| • (1) On/Off Switch: | P/N 4099 |

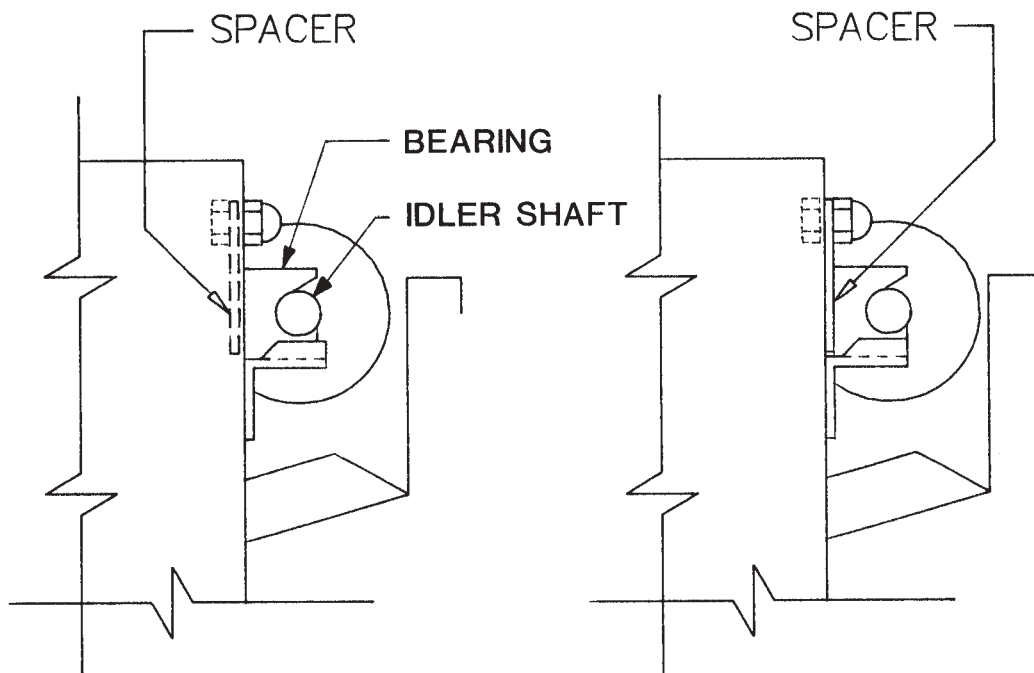
Keeping these parts in your store is a good insurance policy to help avoid down time of your Nieco Broiler! For more details on a preventative maintenance program, please contact your local distributor.

F. CONVEYOR BELT TENSION

Maintain proper tension on the conveyor belts to prevent jamming. Bearing spacers (pictured below) are supplied with the broiler to make minor tension adjustments. Major tension adjustments are made by removing a link or links from the belt.

The diagram on the left shows the spacer in the stored position. The diagram on the right shows the spacer behind the teflon bearing tightening the belts.

Belt tension should be checked monthly. To do this, allow the machine to cool, then grip the idler shaft at each end and pull on it. If the shaft and bearings move 3/16" or more, the spacers should be placed behind the bearings to tighten the belts. If the spacers are already behind the bearings, return them to the stored position and remove a link from the conveyor belt.



BROIL BELT PROBLEMS

Interference with stripper blade:

The most common belt problem to be expected is the physical interference of the belt with the stripper blade. This is caused by bent or warped rods on the meat belt, and can be fixed by replacing the rods that are causing the problem. Other causes are bent stripper blades, or utensils jammed in the belt.

Blocked belts:

When trouble shooting drive problems, it is important to ensure that the belt is not being blocked. To do this, detach the drive chain and turn the meat belt by hand. The belt, with the motor detached, should turn freely and easily. If the blockage has occurred which is preventing the belt from turning, the blockage should be removed before the drive chain is re-attached. The drive chain can be easily removed from the drive sprocket (on the motor shaft) by loosening the mounting bolts and raising the motor.

G. PERIODIC MAINTENANCE SCHEDULE

EVERY THREE MONTHS:

- Check burner shields for excessive wear.
- Clean main gas orifices with pipe cleaner and rubbing alcohol.

EVERY SIX MONTHS:

- Rotate the heating elements on the cheesemelter.
- Complete inspection of all hot and cold parts.

EVERY TWELVE MONTHS:

- Check all burners.
- Replace thermocouples.
- Replace motor brushes.

AS NECESSARY:

- Replace teflon bearings.
- Replace other parts that are damaged or show signs of excessive wear.

NIECO RECOMMENDED MAINTENANCE PROCEDURES

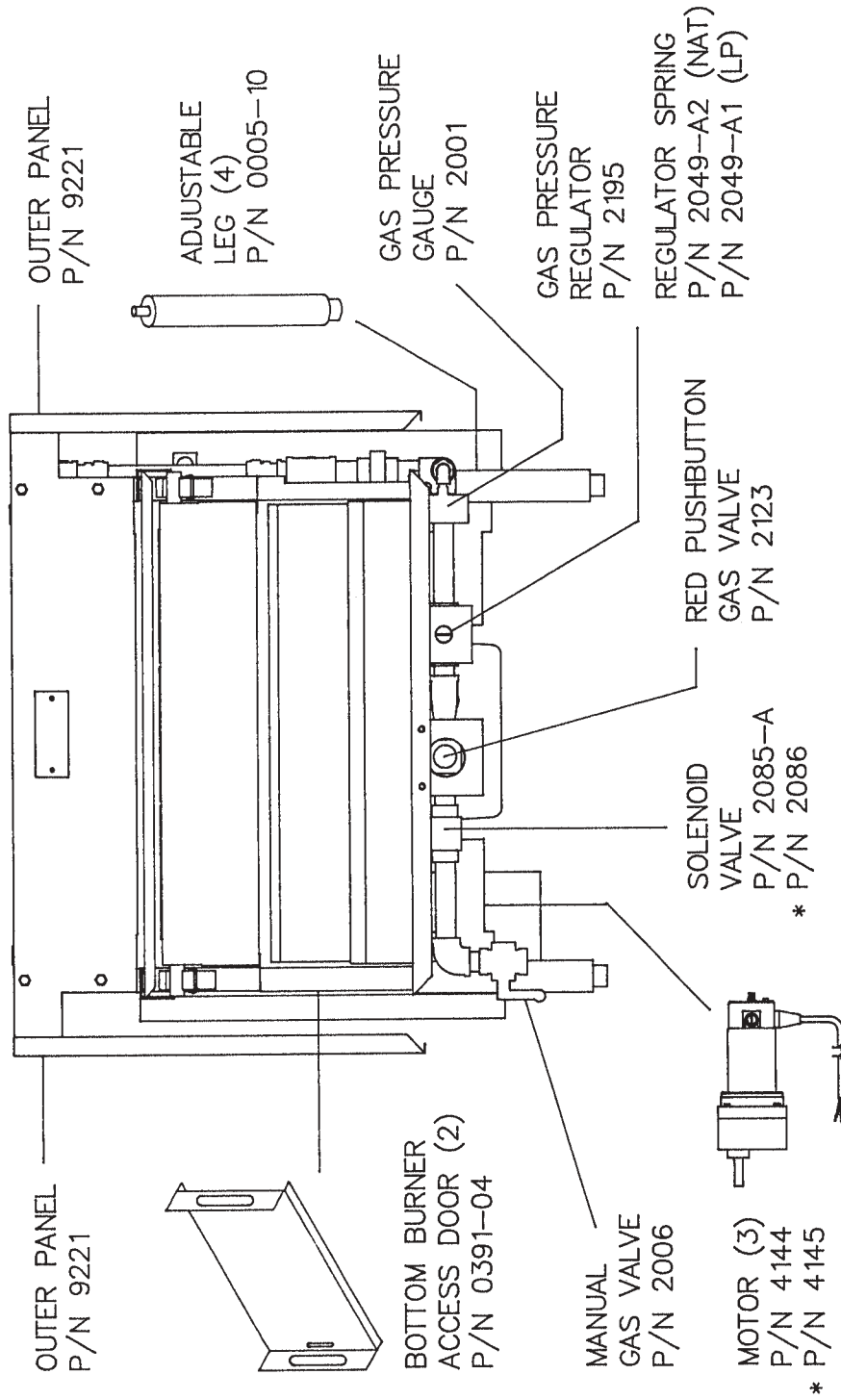
- Daily Maintenance -
 - Sheet Metal Parts: Remove trays, drip pans, stripper blades and side panels. Wash in hot water or approved degreaser.
 - Lower Burner Protective Shields: Use approved degreaser to remove build up.
 - Bun Belt: Wipe clean with a towel.
 - Cheesemelter: Break down and clean contact parts.
- Weekly Maintenance -
 - Burners: Remove burners, hold upright and lightly brush with a stiff bristle (not wire) brush.
 - Venturi: Clean grease buildup from the venturi with a brush or towel.
 - Reverberator: Remove grease buildup with multi-purpose detergent. Replace if a hole has appeared anywhere in the mesh.
 - Orifices: With burners removed, clean with a pipe cleaner to remove deposits.
 - Shafts: Clean in place with shaft cleaning tool provided with your broiler.

Remember to replace worn parts before they fail. You will be able to observe any deterioration of consumable parts, and, by replacing them, avoid any downtime.

Schedule your maintenance for the year.

H. EXPLODED VIEW DRAWINGS

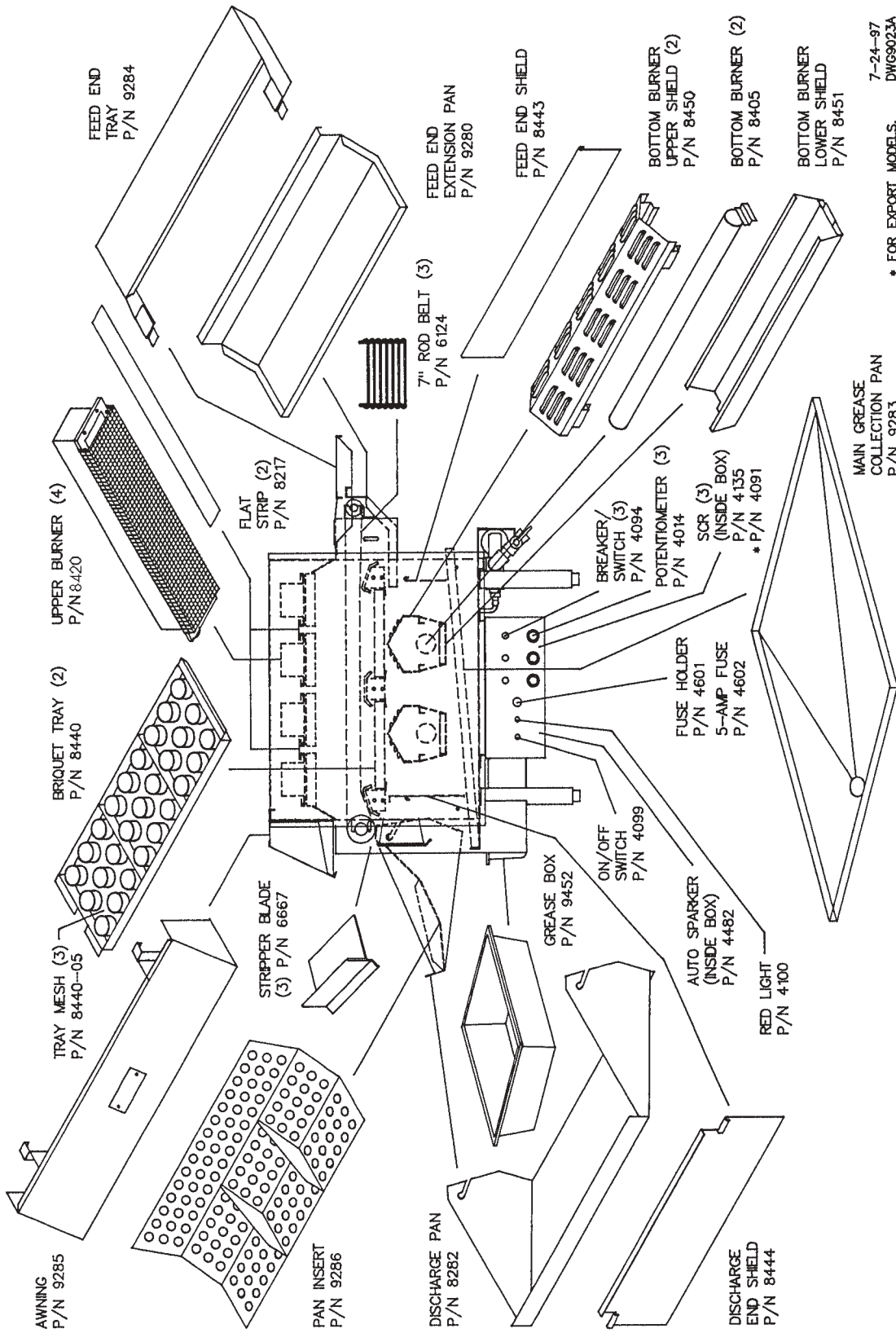
1015A Gas - Feed End View



12-12-97
DWG9023

* FOR EXPORT MODELS.

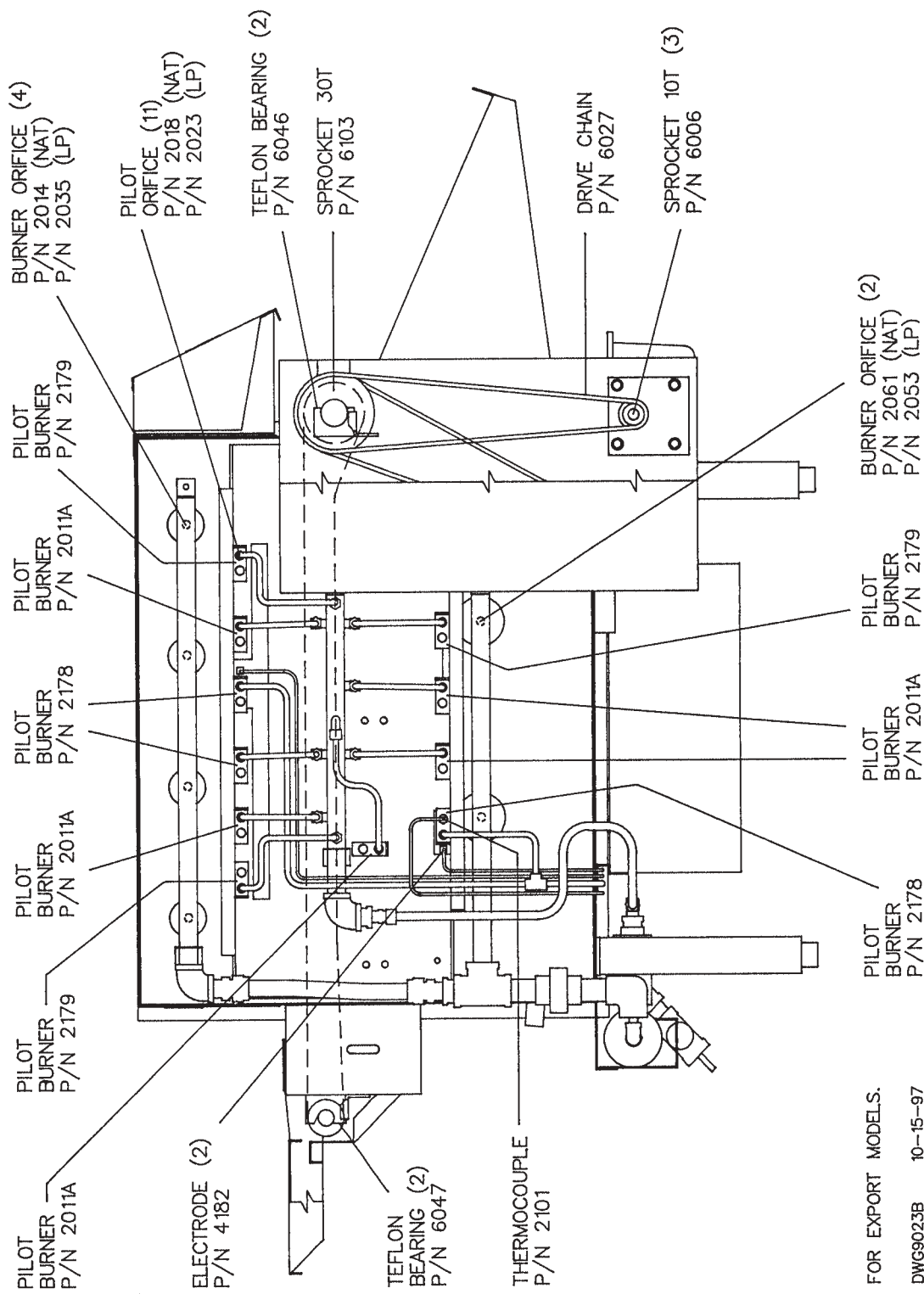
1015A Gas - Front Side View



7-24-87
DWG9023A

* FOR EXPORT MODELS.

1015A Gas - Rear Side View



* FOR EXPORT MODELS.
DWG9023B 10-15-97

I. TROUBLESHOOTING GUIDE

| PROBLEM | PROBABLE CAUSES | SOLUTION |
|--|---|--|
| Pilot Burners won't light. | <ol style="list-style-type: none"> 1. Pilot Burner dirty, or orifice plugged. 2. Pushbutton valve not fully depressed. 3. Air in pilot line. 4. Electric spark ignitor dislocated. 5. Electric power not on, or machine not plugged in. 6. Gas not hooked up or on. | <ol style="list-style-type: none"> 1. Clean pilot burner, replace orifice. 2. Repeat start-up procedure. 3. Purge line by holding down red push button before igniting. 4. Position white electrode so the tip is 1/4" from the pilot burner, or light manually. 5. Plug in/turn on. 6. Check Gas Supply |
| Pilots won't stay lit when pushbutton is released. | <ol style="list-style-type: none"> 1. Thermocouple not hot yet. 2. Weak pilot flame. 3. Thermocouple dirty or defective. 4. Pushbutton power unit defective. | <ol style="list-style-type: none"> 1. Repeat starting procedure, and hold the pushbutton in longer. 2. See Below. 3. Clean or replace. 4. Replace. |
| Pilot flame weak or yellow. | <ol style="list-style-type: none"> 1. Dirty pilot or orifice. 2. Pilot tubing plugged or pinched off. 3. Incoming gas pressure too low. | <ol style="list-style-type: none"> 1. Clean or replace. 2. Check line. Pilot tubing can be removed with a wrench. 3. Adjust pressure regulator. |
| Main Burners won't light, or they go out during operation. | <ol style="list-style-type: none"> 1. Pilot flame too small. 2. Air draft blowing pilot flame out. 3. Electrical supply interruption. | <ol style="list-style-type: none"> 1. Replace pilot orifice. See Above. 2. Check for drafts. 3. Secure power supply. |
| Burner appears dim (cooler). | <ol style="list-style-type: none"> 1. Burner orifices dirty. 2. Gas pressure too low. 3. Gas line partially blocked. 4. Pressure regulator defective. 5. Burners not installed properly. 6. Burner venturi dirty. 7. Main gas valve partially closed. 8. Burner distributor screen dirty. | <ol style="list-style-type: none"> 1. Clean or replace. 2. Adjust pressure regulator. 3. Check line and clear. 4. Replace. 5. Remove and install properly. 6. Clean. See Cleaning Instructions. 7. Open fully so that handle is in line with the valve. 8. Clean. |
| Burners backfire or sputter. | <ol style="list-style-type: none"> 1. Gas pressure too high. 2. Burners have gotten wet. 3. Burner venturi dirty. | <ol style="list-style-type: none"> 1. Adjust pressure regulator. 2. Dry thoroughly, replace gasket. 3. Clean. |
| Conveyor belts won't advance. | <ol style="list-style-type: none"> 1. Machine not plugged in. 2. Wall circuit breaker off. 3. Motor control switch off. 4. Speed control not set properly. 5. Speed control defective. 6. Drive chain broken. 7. Gear motor defective. 8. Loose or broken wire. 9. Motor unplugged. 10. Drive sprocket loose. 11. Pick-up for speed controller loose or defective. | <ol style="list-style-type: none"> 1. Plug in. 2. Turn on. 3. Turn on. 4. Reset cook time. 5. Replace. 6. Replace or repair. 7. Replace. 8. Tighten or replace. 9. Plug in. 10. Tighten sprocket set screw. 11. Tighten or replace. |

I. TROUBLESHOOTING GUIDE

| PROBLEM | PROBABLE CAUSES | SOLUTION |
|---------------------------------------|---|---|
| Motor control switch trips. | <ol style="list-style-type: none">1. Conveyor belt jammed2. Switch defective.3. Drive chain binding.4. Shorted wire to motor.5. Gear motor defective. | <ol style="list-style-type: none">1. Remove jam, reset switch.2. Replace.3. Adjust tension of chain.4. Repair wire.5. Replace. |
| Conveyor belt speeds are erratic. | <ol style="list-style-type: none">1. Drive chain binding.2. Gear motor defective.3. Loose drive sprockets. | <ol style="list-style-type: none">1. Adjust tension of chain.2. Replace.3. Tighten set screws. |
| Broiled product over or under cooked. | <ol style="list-style-type: none">1. Wrong conveyor belt speed.2. Product position or temperature not consistent. | <ol style="list-style-type: none">1. Reset cook time.2. Place product on proper belt. Be sure refrigerators and freezers are working and that product temperature is consistent. |

J. SPECIFICATIONS

Model 1015A

| Exhaust | CFM | CMH |
|---------|------|------|
| TYPICAL | 1000 | 1699 |

| Dimensions | INCH |
|------------|----------|
| LENGTH | 54 3/16 |
| HEIGHT | 31 9/32 |
| WIDTH | 33 11/16 |
| WEIGHT | 390 LBS |

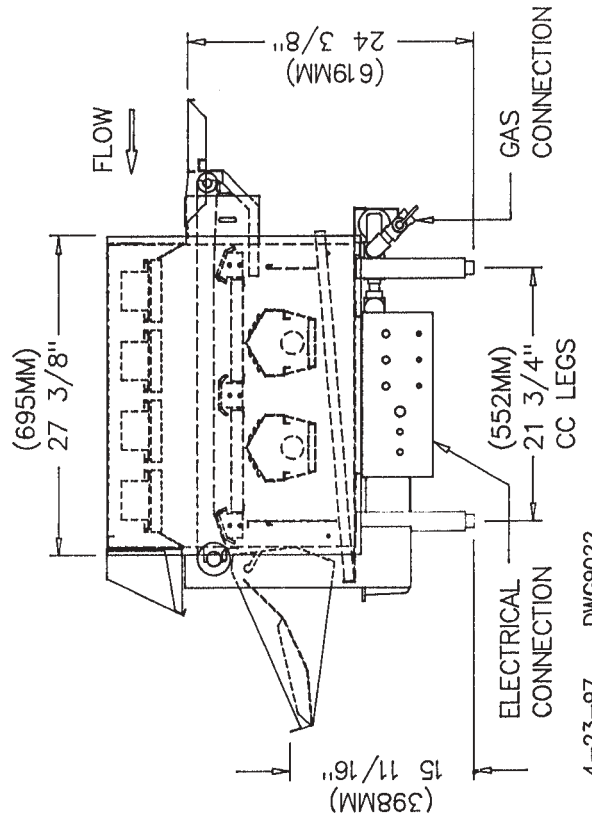
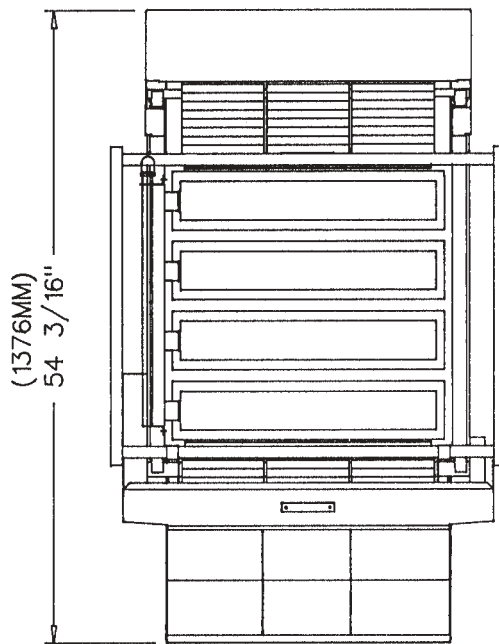
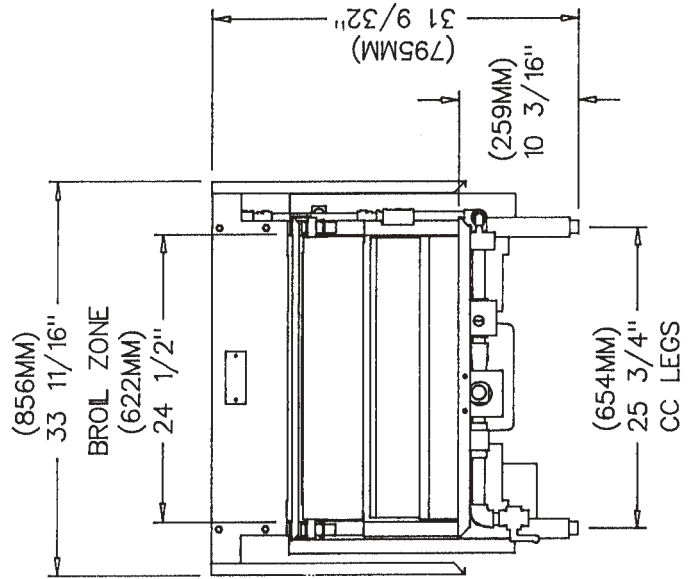
Energy - Gas Model

| | |
|--|--------------------------|
| GAS CONNECTION | 3/4" N.P.T. |
| ELECTRICAL CONNECTION (SPECIFY EXACT VOLTAGE) | 120V 1 PH 50/60 Hz 5A |

| | |
|-------------|---------|
| NATURAL GAS | 4" W.C. |
| BTU/HR | 120,000 |
| KCAL/HR | 30,240 |

| | |
|---------|----------|
| PROPANE | 11" W.C. |
| BTU/HR | 120,000 |

| | |
|---------|--------|
| KCAL/HR | 30,240 |
|---------|--------|



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K. WIRING DIAGRAM

1015A Gas - Domestic U.S.A.

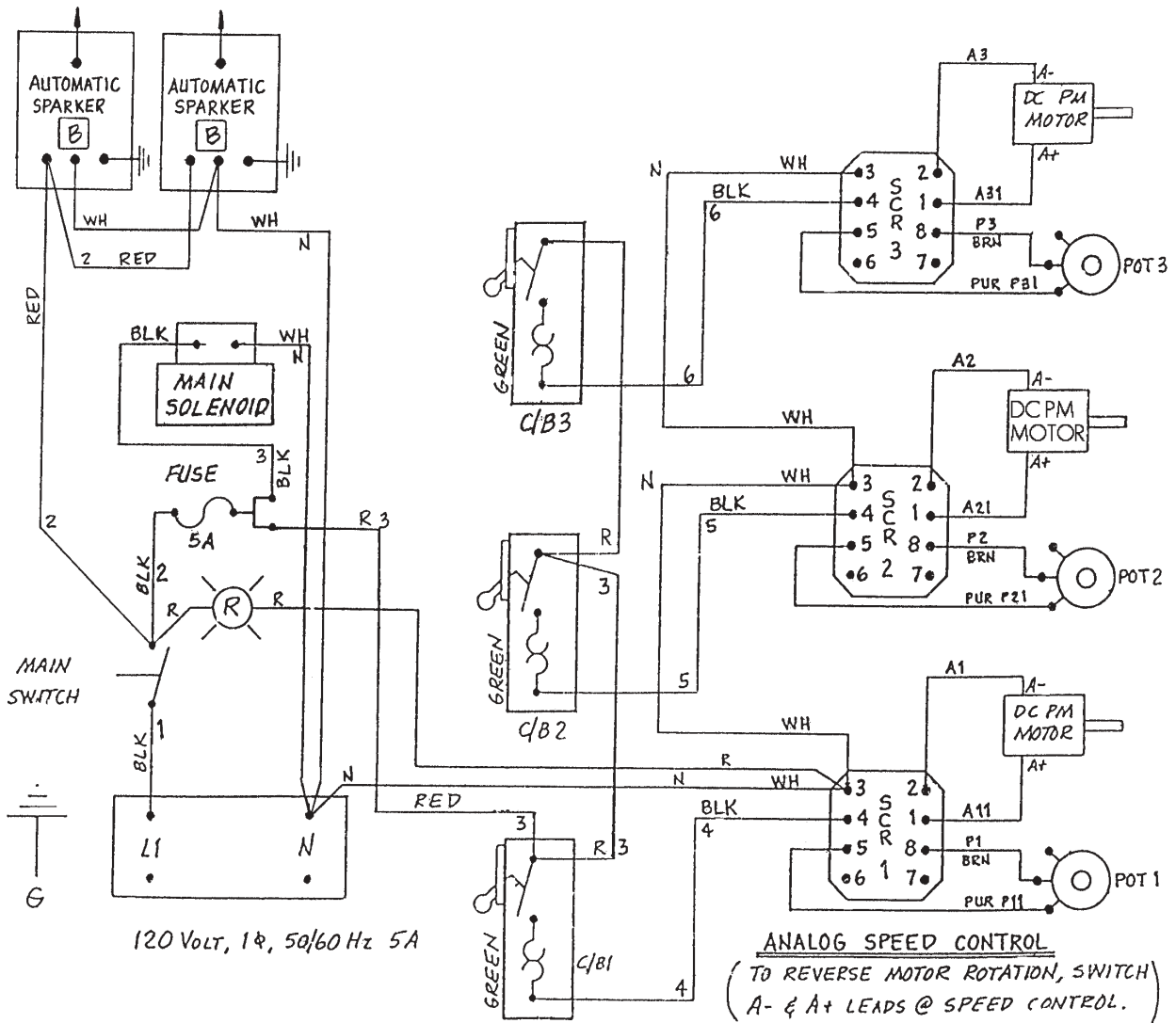
REVISION

- A REMOVE PILOT GAS SOLENOID AND 60 SECOND TIMER.
- B REPLACE DUAL-OUTPUT SPARKER WITH 2 SINGLE OUTPUT SPARKERS FOR AGA APPROVAL

A

A

TO SPARK ELECTRODES AT TOP AND BOTTOM



| | |
|----------|---------|
| DRAWN BY | 3 |
| DATE | 3-28-97 |
| DWG. NO. | 9033 |
| REV. | B |

1015GA 1,2,OR 3 MOTORS



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