

# Model MPB94 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

Revised 3/18/2008

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## A. GENERAL INFORMATION

#### A.1 Description

The Nieco® Model MPB94 automatic broiler features high release convection burners, electric elements, a new, simplified ignition system, 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 MPB94. 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 in accordance with the general terms and conditions outlined in the BURGER KING®/Vendor agreement. 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.

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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. Nieco and the Burger King Corporation have worked together to create a set of standards for broiler performance, food quality and food safety. 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.

## ▲ WARNING ▲

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.

## WARNING 📈

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. Nieco and the Burger King
  Corporation have worked together to create a set of standards for broiler performance, food quality
  and food safety. 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 the BURGER KING® SYSTEM.
- 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 and the following minimum capacity:

Model Minimum SCFM Recommended SCFM

MPB94 700 1000

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 MPB94.

#### **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 installation near non-combustible 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 Gas Connection- 3/4" N.P.T.

At rated input the gas supply should deliver a minimum pressure of at least 15 mbar (6" water column) at the broiler connection for natural gas. Incoming gas supply pressure must not exceed 50 mbar (14" water column).

**Note**: The installation of this appliance must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1, Natural Gas Installation Code, CAN/CGA-B149.1 including:

- 1. The 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 psi (3.45 kPa).
- 2. The 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 psi (3.45 kPa).

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.



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

#### **B.7 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. The connector shall comply with the Standard for Connectors for Moveable Gas Appliances, ANSI Z21.69 or CAN/CGA-6.16 and a quick disconnect device that complies with the Standard for Quick-Disconnect Devices for use with gas fuel, ANSI Z21.41 or CAN1-6.9

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.

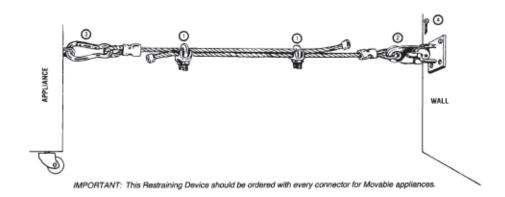
Note: Gas appliances should be disconnected prior to maximum movement. (Minimal movement is possible to connect hose.)



#### **B.8 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. For proper attachment to the broiler, use the supplied hardware to attach the device to the holes in the shear plate of the broiler stand.

NOTE: If disconnection of the restraint is necessary, reconnect the restraint after the appliance has been returned to its originally installed position.



#### **B.9 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.10 Pre-Operation Check**

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

- Ventilation is turned on
- ☐ Broiler is plugged in
- ☐ Gas line is connected



## **C. OPERATION**

## C.1 Controls and Indicators for broilers not equipped with the Energy Management System (EMS)





#### ON DISCHARGE END Gas Gauge P/N 16036



#### **BEHIND BOTH CONTROL BOXES**

Belt Reverse Buttons - Push to reverse the belts in case of a jam.





## C.1 Controls and Indicators for broilers equipped with the Energy Management System (EMS)





## **BEHIND MAIN SIDE CONTROL BOX**Belt Reverse Button - Push to reverse the belt in case of a jam.



EMS Override Button - Push to move belt if product is left in the chamber after the broiler has been put in EMS mode.

## **ON DISCHARGE END**Gas Gauge

P/N 16036

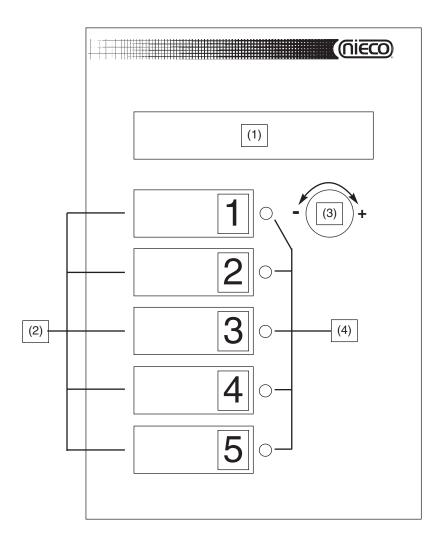


#### BEHIND FLEX SIDE CONTROL BOX Belt Reverse Button - Push to reverse the belt in case of a jam.





#### C.1 Controls and Indicators - Flex Side



- (1) LED DISPLAY Shows current product selection and cook time.
- (2) PRODUCT SELECTION BUTTONS Press to select different presets for different products.
- (3) ADJUSTMENT KNOB Use to adjust product cook times, element settings and product names.
- (4) SELECTION INDICATOR LIGHT Lights up to show which button is selected.



#### **C.2 Lighting Procedures**

#### PRE-LIGHTING PREPARATION

- Broiler is centered under hood and plugged in
- Gas valve is open when handle is in line (parallel to) the pipe
- Turn ventilation system on

## **⚠** WARNING **⚠**

THE VENTILATION SYSTEM MUST BE ON AT ALL TIMES DURING BROILER OPERATION. OPERATING BROILER WITHOUT PROPER VENTILATION IS A SEVERE FIRE HAZARD.

#### **NORMAL IGNITION**

The MPB94 is equipped with automatic ignition. When the broiler is turned on, a hot surface ignitor turns on 5 seconds before the flow of gas. Gas then flows to all of the burners. If the burners are not lit within 10 seconds, the control will reset and try again for 10 seconds. This occurs 3 times. If the broiler does not light after the third attempt, the ignition failure light will flash and the main on/off switch must be cycled to repeat the procedure. If this still doesn't light the broiler, see the MANUAL IGNITION instructions.

1. Turn the **MAIN POWER SWITCH** on. For a broiler equipped with the EMS controls, turn the main power switch to position two (2). **NOTE: The main side belt will not turn for the first six minutes of start-up.** 



EMS SWITCH



STANDARD SWITCH

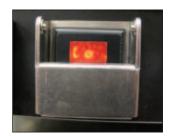
2. Check **GAS PRESSURE GAUGE** reading. Gauge should read 4.5"\*. If the gauge is not easy to see look to make sure that all burners - upper and lower - have lit.





3. Allow broiler to heat for 45 minutes before cooking. During the warm up period, the control will display "Lo" (low). Do not cook during the warm up period.





4. Allow broiler to heat for 45 minutes before cooking. After warm-up period, the load sensing control should read "Rdy" (ready).





\*For Natural Gas only. For LP broilers: Gas pressure should be 11".



#### C.2 Lighting Procedures (Continued.)

#### **MANUAL IGNITION**

- 1. Remove the discharge awning. Turn the MAIN POWER SWITCH on. For broilers equipped with the EMS controls, turn the main power switch to position two (2). Hold a lighter/match to the first upper burner on the discharge end until the burner lights. Once the first burner is lit, verify that all burners have ignited.
- 2. Check **GAS PRESSURE GAUGE** reading. Gauge should read 4.5"\*. If the gauge is not easy to see look to make sure that all burners - upper and lower - have lit.









#### C.3 Shutdown Procedures

#### **PLANNED SHUTDOWN**

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



**EMS SWITCH** 



STANDARD SWITCH

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

#### **EMERGENCY SHUTDOWN**

1. Turn off the MAIN POWER SWITCH.



**EMS SWITCH** 



STANDARD SWITCH

2. Close the **MAIN GAS** VALVE

Valve is closed when it is perpendicular to



Your Nieco Automatic Broiler is designed to automatically stop gas flow to the broiler in the event of power failure, gas pressure loss or any other related incident. No attempt to operate this appliance should be made in the event of a power failure.

⚠ CAUTION ⚠

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. ⚠ CAUTION ⚠

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 1



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 CHANGED.

If this is the initial start-up for your broiler, ALL control settings must be made according to BURGER KING® specifications. Follow the steps outlined for calibration, changing preset times and setting the flex chamber element heat settings to properly set up this broiler.

#### **MAIN SIDE CONTROLS**

#### 1. SETTING BELT SPEEDS

Lift cover, press and turn the belt speed control knob to the desired speed setting.

#### 2. LOAD SENSING CONTROL

How it works:

The load sensing control will display "Rdy" (ready) when the broiler is ready to cook on.

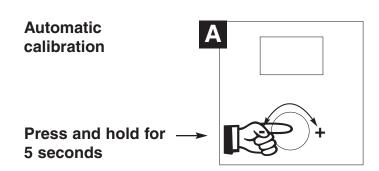
#### 3. AUTOMATIC CALIBRATION

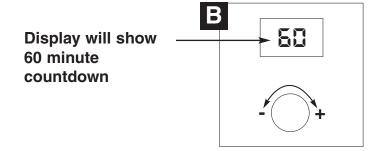
A. Before turning the broiler on, press and hold the load sensing control knob in.

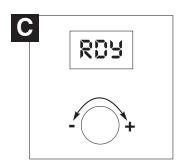
- B. Turn the main power switch on and continue to hold the load sensing control knob in for 5 seconds.
- C. After 5 seconds, release the knob. The control will display a countdown of 60 minutes. After the countdown, the control will display "Rdy" (ready), and the broiler will be calibrated.

IMPORTANT: DO NOT COOK DURING THE 60 MINUTE COUNTDOWN!











#### MAIN SIDE CONTROLS - EMS (ENERGY MANAGEMENT SYSTEM) OPERATION

If your MPB94 is equipped with the energy management system, follow the instructions below for its proper operation. The EMS will allow you to cut your energy usage during low volume periods.

#### 1. FULL OPERATION

To operate the broiler in full mode, meaning both the main and flex sides can be used for cooking, turn the main on/off switch to position two (2). Note: The center (amber) light located under the flex side control will come on. This means you can cook on both sides of the broiler.

#### 2. ENERGY SAVING OPERATION

Turn the main on/off switch to position one (1). This will turn off the elements and reduce the gas used by the burners on the main side. The green light will come on under the flex side control when in EMS mode. EMS mode stops the main side belt from turning so you cannot cook on it. To resume full operation, turn the switch to position two (2). There is a 6 minute re-heat period before the main side belt begins to turn and you can cook again. Note: If there is product on the main side belt when you switch into EMS mode, push the override button on the back of the main side control box to discharge any product left on the belt.

#### 3. FLEX SIDE BURNER

If the BURGER button is selected on the flex side control, the red indicator light will come on under the control. This lets you know that you are using an extra burner on the flex side. If you are not cooking Whoppers or hamburgers, we strongly recommend pushing the CHICKEN button on the flex control. This will shut off the extra burner and allow for more energy savings.

1.





2.





3.





NOTE: Switching the Main On/Off Switch from position one to position two will put the broiler in a re-heat mode and will stop the belt on the main side from moving for six minutes.



#### **FLEX SIDE CONTROLS**

#### 1. Multi-Product Control

How it works: The multi-product control is designed to let you broil different products on the flex side of the broiler. The control allows you to have different broiler settings for each product selection button. Use a grease pen to mark the white area with the product name.

#### 2. Normal Operation

Press the product selection button (number) for the product you wish to cook. The display will show the product name and cook time and the light next to the product selection button will be lit.

NOTE: Be sure the belt is clear of any products before pressing a new product selection button.

#### 3. Changing Belt Speeds

Push the product selection button you want to adjust then push and turn the knob to the desired speed.

## 4. Changing Upper Heat Element Settings

To adjust element settings press the product selection button you wish to change, then press the product selection button one more time. The screen will read Duty Cycle and show a percentage. Turn the knob to adjust the element power up or down (0 = off; 100% = Full on). When you are done making changes, the control will automatically save your changes after 5 seconds.

#### 5. Changing Burner Settings

Press the product selection button you wish to change. Press the product selection button twice (2X) to get to the burner selection screen. Turn the knob to YES or NO. When you are done making changes, the control will automatically save your changes after 5 seconds.









## **FLEX SIDE CONTROLS**

#### 6. Changing Product Names

Push the product selection button which you want to make a name to. Press and hold the KNOB in for 15 seconds. The control will enter the edit name screen for that button. Turn the knob to change the characters. Press the knob once to move to the next character until you are finished editing the product name for that button (10 character limit). Press and hold the PRODUCT SELECTION BUTTON for 5 seconds to save the changes and return to normal operation.



#### 7. Factory Presets

The MPB94 uses the following factory presets for the Multi-Product Control:

Product Selection Button	Product Name	Cook Time	Duty Cycle	Burner Yes/No
1	Chicken	5:00	100%	NO
2	Steakhouse	2:40	100%	YES
3	Product 3	7:00	50%	NO
4	Product 4	7:00	50%	NO
5	Burger	2:15	100%	YES

## D. CLEANING AND DISASSEMBLY

Turn broiler off and close the main gas valve. 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.

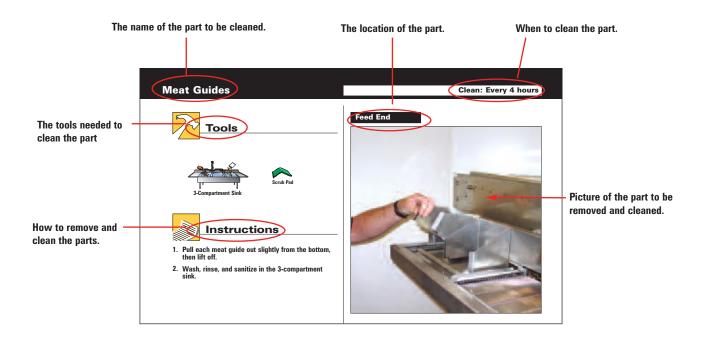


BROILER PARTS ARE HOT. DO NOT ATTEMPT TO DISASSEMBLE THE BROILER UNTIL IT IS FULLY COOL. FAILURE TO FOLLOW THIS INSTRUCTION MAY RESULT IN SEVERE INJURY.

#### 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.
- Close the main gas valve and unplug the broiler before cleaning.
- 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.

## Meat Guides - P/N 14407



#### **Tools**





## **Instructions**

- Pull each meat guide out slightly from the bottom, then lift off.
- 2. Wash, rinse, and sanitize in the 3-compartment sink.







#### **Tools**







#### **Instructions**

- Slide the feeder cover towards you until it comes off.
- 2. Wash, rinse, and sanitize in the 3-compartment sink.

#### Feed End



Clean: Every 4 hours

Clean: Every 4 hours

## Push Bar/Wire Belt Feeder Base - P/N 17410



#### **Tools**





## **Instructions**

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

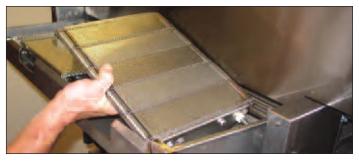


DO NOT lift the feeder base by the feeder bar or the chains. This will damage the feeder base.



**REASSEMBLY: Pull the release pin and place feeder base in position.** 







## Feeder Housing - P/N 17350



### **Tools**







## Instructions

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



**REASSEMBLY:** Hang feeder housing on brackets.

#### Feed End



Clean: Daily

Clean: Daily

## Grease Pan - P/N 16208



## **Tools**







R 🖒

Degreaser

3-Compartment Sink



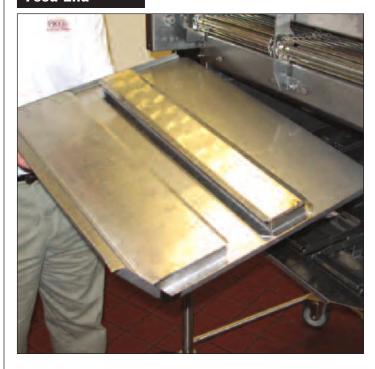
## **Instructions**

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.





## Holding Pan Shield - P/N 16840



- 1. Slide holding pan shield out.
- 2. Take to sink area and spray with degreaser.

**Instructions** 

3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.

#### Feed End



**Clean: Monthly** 

## Holding Pan Bracket - P/N 16946





## Instructions

- 1. Lift and slide bracket out.
- 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





Clean: Daily

## **Product Holding Area**



### **Tools**







## **Instructions**

- 1. Clean product holding area while still warm.
- 2. Wring out a soapy towel and wash product holding area.
- 3. Wring out a sanitized towel and wipe product holding area.

#### Feed End



Clean: Daily

## Feed End Grease Trough - P/N 17052



## Tools







## Instructions

- 1. Slide grease trough towards you.
- 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



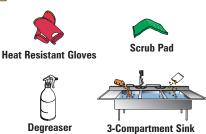


Clean: Daily

## Product Slide - P/N 17031 Inserts - P/N 17032



#### **Tools**





## Instructions

- 1. Tilt and lift pins off hooks; lift off.
- 2. Take to sink area and spray with degreaser.
- 3. Wash, rinse, and sanitize in the 3-compartment sink.



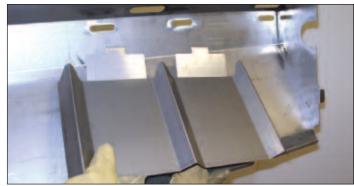
REASSEMBLY: Make sure pan inserts are on and return pan hangs on brackets.

#### Discharge End



Clean: Daily

Clean: Daily



## Stripper Blade - P/N 15661



#### **Tools**



Heat Resistant Gloves



Scrub Pad



Degreaser





## **Instructions**

1. 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.
- 3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.



**REASSEMBLY:** Hang stripper blade on brackets.

#### Discharge End





Chain Shafts Clean: Daily



#### **Tools**





#### Instructions

- Scrape each shaft of both belts on the discharge end with the wide end of the shaft cleaning tool. The tool is located on the clip on main side control box.
- 2. Wipe shaft cleaning tool with a towel.

#### **Discharge End**



## **Grease Trough - P/N 16307**



#### **Tools**



**Heat Resistant Gloves** 





## **Instructions**

- 1. Lift and slide the grease trough out of the broiler.
- 2. Take to sink area and spray with degreaser.
- 3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.



#### Side





Clean: Daily



Clean: Daily



#### **Tools**









#### **Instructions**

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



**REASSEMBLY: Put grease box on before the grease** trough.

#### Side



## Flame Arrestors - P/N 16202



### **Tools**







**Heat Resistant Gloves** 

3-Compartment Sink



## Instructions

- 1. Slide flame arrestors out.
- 2. Rinse in the 3-compartment sink.

Reassemble with arrestors rotated (feed end to discharge end).

**NOTE: THE FLAME ARRESTORS MUST BE ROTATED** DAILY.

#### **Sides**







## Lower Burner (Single) - P/N 16378; Double - P/N 16389

Clean: Weekly

Clean: Monthly



## **Tools**







Scrub Pad

3-Compartment Sink



### Instructions

- 1. Open the side access door.
- 2. Slide burner or burners out.
- 3. Take to the 3-compartment sink and scrub with a scrub pad.
- 4. If necessary, use a stiff toothbrush to clean any clogged burner holes.
- 5. Repeat steps for all burners.





Burners must be completely dry before reassembly.

#### Side





## Lower Burner Shields - P/N 16320



#### Tools







**Heat Resistant Gloves** 

3-Compartment Sink

## Instructions

- 1. From the feed end, lift up and pull towards you.
- 2. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.



**REASSEMBLY: Make sure shields are seated** properly on brackets.









Clean: Daily



**Tools** 





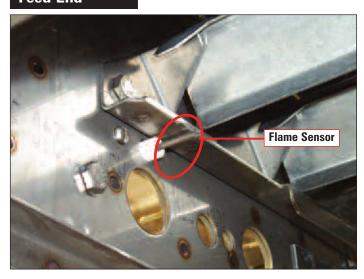
#### **Instructions**

1. Polish with a dry scrub pad.



Do NOT use water on the flame sensor.

#### Feed End







## Catalyst - If no perforated cap - P/N 16714



**Tools** 



**Heat Resistant Gloves** 



## <u>Instructions</u>



**EXTREMELY HOT!** Be careful not to burn yourself.

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

#### Top



CAUTION: Extremely Hot



## Perforated Cap - If no catalyst - P/N 16793



#### **Tools**













#### **Instructions**



**EXTREMELY HOT! Be careful not to burn yourself.** 

- 1. Lift cap from shroud collar.
- 2. Take to sink area and spray with degreaser.
- 3. Wash with a scrub pad, rinse, and sanitize in the 3-compartment sink.

#### Top



Clean: Monthly

Clean: Monthly

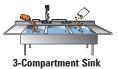


## Upper Burners P/N <mark>17402</mark>



## <u>To</u>ols





**Scrub Pad** 

**Heat Resistant Gloves** 

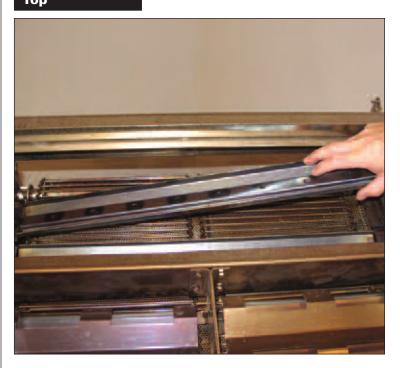


- 1. Lift each burner up and out of broiler.
- 2. Take to the 3-compartment sink and scrub with a scrub pad.
- 3. If necessary, use a stiff toothbrush to clean any clogged burner holes.
- 4. Repeat steps for all burners.



Burners must be completely dry before reassembly.

#### Top





Orifices Clean: Monthly



Tools

Small Orifice Brush



## **Instructions**

1. Clean orifices using a small, dry orifice brush.

## Inside





## E. TROUBLESHOOTING

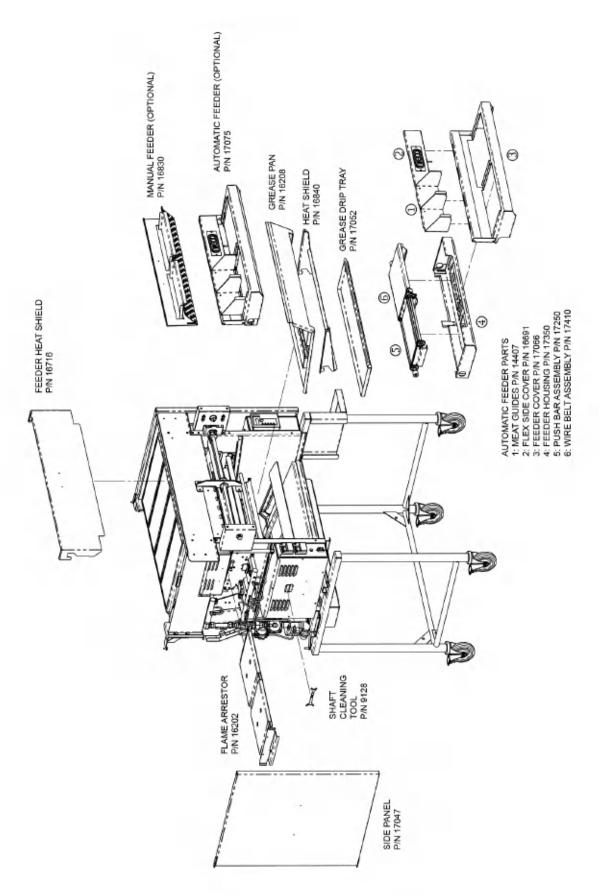
Always verify that the broiler is properly assembled, the hood is on, gas valve open and broiler is plugged in.

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.
Broiler has power, but the burners do not light.	Check: Ventilation hood is on. Gas line is properly plugged in. Manual gas valve (if equipped) is on. Burners are installed properly. Burners are clean and dry. Flame sensor wire connection. Follow manual lighting instructions.
Red light blinking on left control box.	Check the items above for burners not lighting. Turn power off and on again to reset ignition. Follow manual lighting instructions.
Hot surface ignitor does not heat.	Check for loose wires connecting the hot surface ignitor. Follow manual lighting instructions.
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 and the flame arrestors to make sure they are installed properly.
Load Sensing Control (LSC) stays in "Lo" even though the broiler is warmed up.	Lower the set point by holding in the knob for 5 seconds, then setting the set point to match the actual temperature. Refer to the calibration instructions in this manual.
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.	Main side: adjust conveyor belt speed. Flex side: adjust conveyor speed, duty cycle, and burner settings. Clean burners and orifices.
Excessive flaming in broiler.	Clean or rotate the flame arrestors, Clean the catalyst if equipped. Check the hood for proper operation. Check product for overcooking.



## F. PARTS LOCATION DRAWINGS

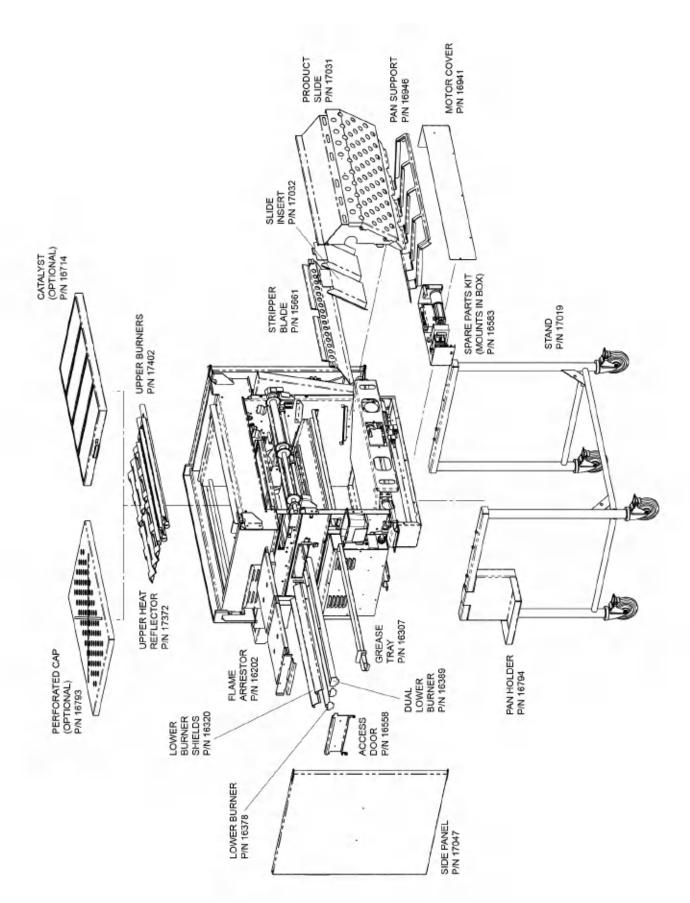
MPB94 Feed End View





## F. PARTS LOCATION DRAWINGS

MPB94 Discharge End View





## **G. REPLACEMENT PARTS LIST**

	DESCRIPTION JED COMPONENTS
	IER COMPONENTS
17402	UPPER BURNER
	LOWER BURNERSINGLE(FOR UNITS MANUFACTURED IN 2006)
	LOWER BURNER DUAL
	LOWER BURNER -H BURNER- (FOR UNITS MANUFACTURED IN 2007)
16320	LOWER BURNER SHIELD
IGNITION S	SYSTEM
2182	PILOT ORIFICE (3225) NAT
2023	PILOT ORIFICE (4212) LP
14041	MAIN BURNER ORIFICE #41 NAT
2051	DUAL BURNER ORIFICE #46 NAT
2185	ZIP TUBE ORIFICE #75
2066	MAIN BURNER ORIFICE #53 LP
2035	DUAL BURNER ORIFICE #57 LP
2186	ZIP TUBE ORIFICE #80
2179	PILOT BURNER
2180	PILOT BURNER
2011-A	PILOT BURNER (FOR UNITS MANUFACTURED IN 2006)
16857	FLAME SENSOR - SNAP IN (FOR UNITS MANUFACTURED IN 2006)
17185	FLAME SENSOR - SLOTTED - (FOR UNITS MANUFACTURED IN 2007)
18052	IGNITION WIRE / BOOT
16921	IGNITION MODULE
2209-05	COMBINATION GAS VALVE
	3/4" REGULATOR
12741	SOLENOID VALVE
	IGNITER - GLOW PLUG -
	GAS GAUGE
16036-1	LENS, GAS PRESSURE GAUGE
	<u>E SYSTEM &amp; BEARINGS</u>
6027	#35 DRIVE CHAIN
6048	MASTER LINK
6035	"13"" ROD BELT (5FT EACH SIDE)"
	TEFLON BEARING (DISCHARGE OUTER DRIVE SHAFT)
6047	TEFLON BEARING (DISCHARGE INNER DRIVE SHAFT)
6049	TEFLON BEARING (FEED END)
16229	CENTER SLEEVE BEARING
14572	BRUSHLESS MOTOR
13770	MOTOR SPROCKET
13699	DRIVE SPROCKET
15659	OUTER DRIVE SHAFT
15657	INNER DRIVE SHAFT
15655	IDLER SHAFT
	AL ELEMENTS & CONTROLS
15691	HEATING ELEMENT 950W - MAIN
16055	HEATING ELEMENT 725W - FLEX
16683	WARMER ELEMENT - 1500W
4100	RED LIGHT



13570-B LOAD SENSING CONTROL

MOTOR CONTROL

13737 13727 SOCKET BASE - 11 PIN

## **G. REPLACEMENT PARTS LIST**

4136	CONTROL BASE - 8PIN
15161	MULTI-PRODUCT CONTROL
10529	TRANSFORMER
16034	CONTROL TRANSFORMER
15480	MAIN ON/OFF SWITCH
11965	CIRCUIT BREAKER - 20A
4412-DC	RELAY
12725	BRIDGE RECTIFIER
13579	MOTOR REVERSE SWITCH
4621-0025	.25 AMP FUSE -LH CONTROL BOX -
4621-02	2 AMP FUSE - RIGHT HAND CONTROL BOX -
16407	TEMPERATURE PROBE - SHORT
16408	TEMPERATURE PROBE - LONG
SHEET ME	TAL PARTS
16202	FLAME ARRESTOR
16208	GREASE PAN
16307	SLUDGE TRAY
16382	HOTEL PAN 4" DEEP
16558	ACCESS DOOR
16716	HEAT SHIELD - FEED END
16793	PERF TOP - INSERT - 20 X 31
16794	WARMER PAN STACKING RACK
16840	HOLDING PAN HEAT SHIELD
16941	MOTOR BOX COVER
16946	HOLDING PAN BRACKET
17031	RETURN SLIDE / AWNING
17032	PATTY LANE DIVIDER
17047	SIDE PANEL
17052	GREASE DRIP PAN
17372	ELEMENT REFLECTOR
17416	HEAT SHIELD - DISCHARGE END
<b>FEEDER</b>	
17026	FEEDER PUSH BAR COMPLETE 13" & 7.5"
17066	FEEDER COVER
17350	ENCLOSURE
17250	DRIVE UNIT PUSH BAR
17410	DRIVE UNIT WIRE BELT
14407	PATTY DIVIDER .50 SPACING
11381	FEEDER CHAIN
15617	FEEDER BAR
17409	WIRE BELT (3 LINK) - COMPLETE BELT
15882	COMPLETE CLUTCH ASSEMBLY
14900	COMBO CLUTCH - ONLY
14896	BEARING / SHOULDER WASHER-WHITE- (CLUTCH ASSEMBLY)
10275	THRUST WASHER
10627	BEARING CLIP
11608	BLACK KNOB - CLUTCH ASSEMBLY
16214	FEEDER MOUNTING BRACKET - LH
16215	FEEDER MOUNTING BRACKET - RH

#### **MISCELLANEOUS**

16714 20 X 31 CATALYST



## **G. REPLACEMENT PARTS LIST**

16608	CONTRO	DL BOX LABEL - LH	
16609	CONTRO	DL BOX LABEL - RH	
15328	CONTRO	DL COVER	
9128	SHAFT C	CLEANING TOOL	
9133	ROD BEI	_T PLIERS	
9134	#35 CHAIN BREAKER TOOL		
13811	KIT, BUR	NER MAINTENANCE W/ HI-TEMP GLOVES - KIT INCLUDES:	
	11730	BRUSH, ORIFICE 1/16"" DIA	
	11731	BRUSH, ORIFICE 3/32"" DIA	
	12766	BRUSH, NYLON BRISTLE	
	11734	HI-TEMP GLOVES	

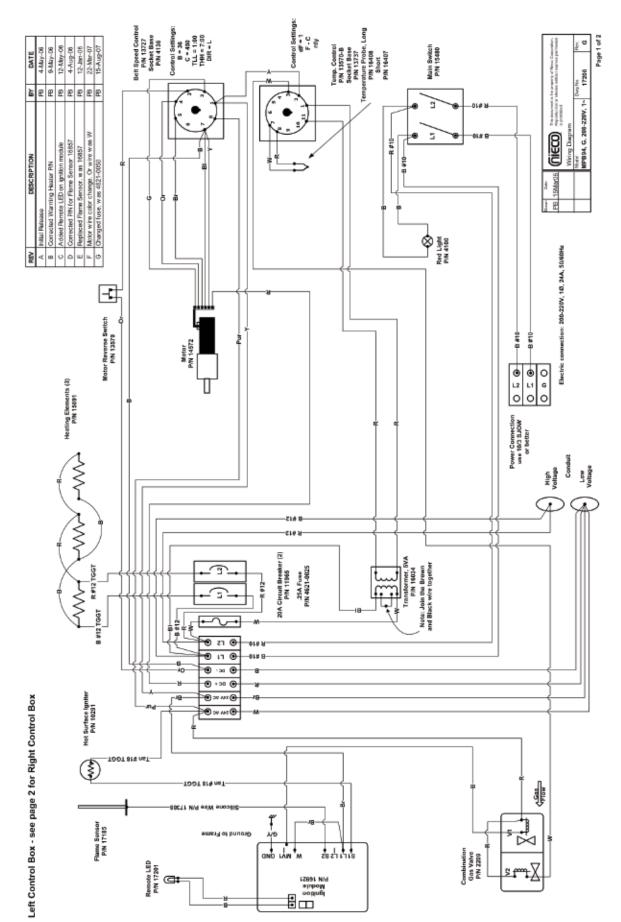
#### **SPARE PARTS KIT**

16583 SPARE PARTS KIT

17922 SPARE PARTS KIT - W/O MOTOR

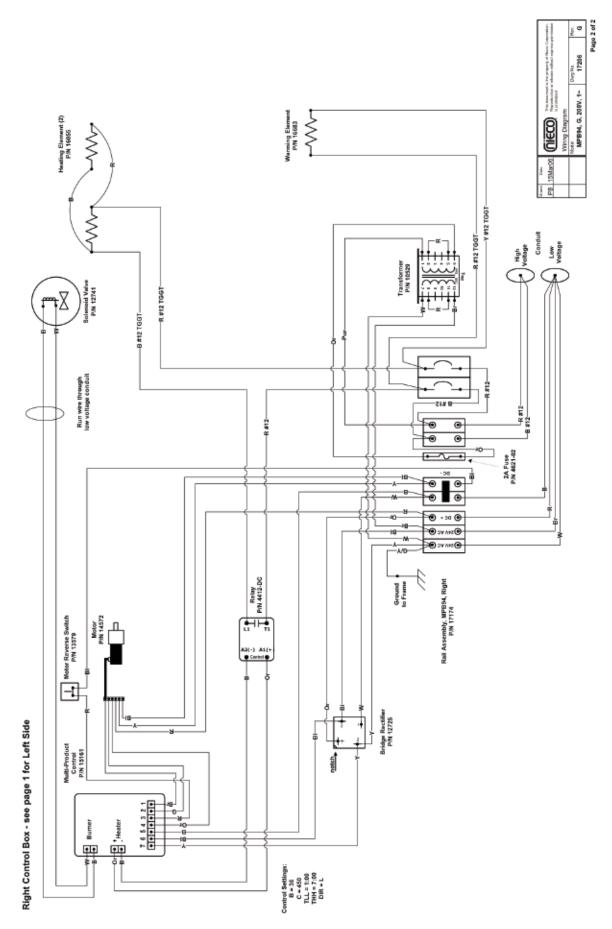


## H. WIRING DIAGRAM - Main Side





## H. WIRING DIAGRAM - Flex Side



## I. SPECIFICATIONS

#### **AUTOMATIC BROILER**

Model MPB94

DIMENSIONS	INCH	MM
Length	34.06	865
Height	65.09	1653
Width	41.43	1052

#### **ENERGY**

kW

Gas connection 3/4" N.P.T.

Electrical connection (specify exact voltage)

Domestic 208-240V IØ 24A Export 230-240V 3Ø 10A

5

#### Natural Gas Operating Usage

BTU/hr 1	07,244
kW	5
	27.025

#### LPG Operating Usage

BTU/hr	109,590
kW	5
kCal	27,617
kW	5

EXHAUST	CFM	CMH
Typical	1000	1699

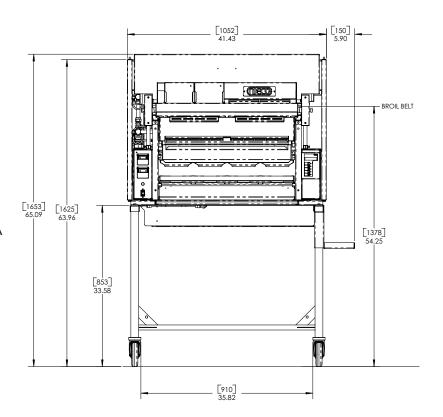
WEIGHT	LBS	KG
Shipping	640	290
Broiler on Stand	565	256

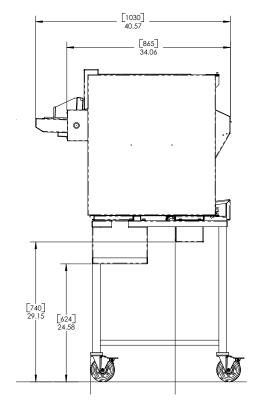
## **A** CAUTION **A**

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.







## J. WARRANTY INFORMATION

This warranty is effective for all Nieco Broilers shipped after November 1, 2005

Your new Nieco Automatic Broiler is guaranteed against original defects in manufacture of machine and component parts for one year. This one-year guarantee is subject to certain conditions and limitations as listed below. This warranty time begins when your machine is started up by your Nieco Distributor or authorized Nieco Service Agent. If you do not receive a startup service, your warranty will begin either on the date you return the Nieco warranty card that is shipped with your machine, or 30 days after shipment of the machine from the Nieco factory.

Generally, your guarantee provides replacement of all parts, which fail due to defects in manufacture for one year after startup of the machine. Parts which fail will be replaced by the Nieco distributor or Service Center in your area who did the startup service. If the part is a customer installed component, the part will be sent you to replace the defective part on your machine. If the part is one listed below, your Service Center will provide the labor to replace it, subject to certain conditions. The parts that will be replaced are generally parts that require service level installation, calibration or adjustment. The parts that will be replaced are listed in appendix A. They are listed by broiler model.

If your broiler has a manufacturing defect that requires service labor to repair, those repairs will be performed by your startup Nieco Service Center or Distributor. Those repairs will be performed subject to certain conditions as mentioned in the parts replacement section.

Nieco guarantees the correct mechanical operation of the equipment at the time of startup of the machine by an authorized Nieco servicer. Nieco makes no warranty, expressed or implied of broiling effect or of exact capacity as subjective judgments, product variations and or customer caused machine conditions beyond Nieco's ability to predict or control may alter the broiling performance of the machine. Both Burger King Corporation and Nieco have extensively tested Nieco broilers prior to Burger King Corporations approval of Nieco broilers for Burger King products and restaurants.

Nieco specifically does not warrant or guarantee or provide compensation for any lost production, lost product, lost labor or lost sales or other consequential damages that may occur as a result of equipment malfunction or failure. This disclaimer of liability for consequential damages applies whether the cause of malfunction or failure is otherwise covered by our warranty or not. In any event, Nieco's liability shall be limited to replacement of the equipment or return of the equipment and refund of the original purchase price.

When you purchased your Nieco broiler, startup service was included in the purchase price if you are located in a territory covered by a Nieco Distributor or Service Center. This startup service is not delivery or installation or hookup. The startup service is to verify the correct mechanical operation and broiling performance of the machine, make any necessary adjustments and calibrations and provide answers to any machine questions about operations, cleaning, assembly or re-assembly. The startup service is not a training service. However, your servicer will provide all information that they can about the machine. The servicing Distributor or Service Center will provide all warranty and after sales service and parts to you.

Validation of warranty is required by startup of your machine by an authorized Nieco Service Center or Distributor. This validation may be done directly with the factory if the startup is done by the customer or by a non-Nieco servicer. Nieco does not provide startup compensation to non-Nieco servicers. Nieco does validation automatically on receipt of the startup report from your servicer. We strongly recommend you assure validation by returning the warranty card shipped with the machine and register your machine for Nieco's parts and service due notification system. If an authorized Nieco servicer did not perform a startup, receipt of the warranty card will validate the warranty. If a startup is not performed and submitted to the factory, the warranty period will start 30 days from the date the machine was shipped from the factory.

This warranty is valid for North America and most other countries. Mandated warranties in some countries may vary due to specific warranty laws, requirements or commercial practices or customs in these various countries. Check with the country Nieco Distributor for variations from this basic Nieco warranty.



The Nieco warranty does not cover the following:

- 1. Ordinary wear and tear, deterioration or damage.
- 2. Defects in parts or performance caused by improper cleaning, maintenance or adjustment.
- 3. Adjustments and re-calibrations are not covered by warranty except when a part needing such is replaced under warranty by a Nieco servicer.
- 4. Misuse or improper cleaning or assembly of the broiler and its components.
- 5. External causes of defective performance. This includes gas and electrical supply and hookup parts and all exhaust components and exhaust adjustment.
- 6. Machines that have been improperly repaired by non-Nieco servicers.
- 7. Machines with parts installed which Nieco does not approve or supply. Approved parts are available from your Nieco Service Center, Distributor or otherwise authorized Nieco parts seller. No other parts have been tested or approved by Nieco or Burger King Corporation and no other parts have been approved as a component of the broiler by approval agencies including, NSF, CSA, CE, SVGW and AGA. Burger King Corporation patents certain parts. These patented components are available through the Nieco supply system.
- 8. Burning components after six months of service. These burning components include gas burners of all types, protective shields, reverberators, electric elements, pilot lights, thermocouples, or gas orifices of any type. Note however that this warranty does not apply to parts that are damaged or destroyed due to normal service or improper or non-cleaning.

Warranty items, labor or parts, are available only from your Nieco Service Center or Distributor who started up your machine unless other arrangements as described below are made with Nieco. Some parts suppliers, while an authorized Nieco parts supplier, are not an authorized warranty center or warranty parts supplier.

Labor warranty is subject to these limitations:

- 1. Labor warranty work is to be performed during regular working hours. Off-hour labor may be subject to additional charge by the servicer.
- 2. One-hour travel in each direction to the restaurant from the servicer's place of business is included.

Restaurants in more distant or remote locations may be charged additional travel time or overnight accommodation, if necessary.

Your Nieco Service Center or Distributor will make warranty decisions. Nieco has provided our servicers with guidelines for warranty work and standards for repair time. If your Nieco servicer rejects your warranty claim, you are required to pay the servicer even though you dispute the charge. To dispute any warranty decision, first contact the Service Center or Distributor principals. If you are not satisfied, contact your Nieco Regional Manager or the Nieco Service Manager or any Nieco Customer Service administrator. Nieco will immediately investigate your claim and make a warranty decision. If you are still not satisfied, appeal your claim to RSI or BK Supply Management who will jointly investigate with Nieco management and make a final decision. If you have paid your servicer and your claim is honored, your money will be refunded. You are responsible for paying the servicer when due, however, regardless of the status of any claim.

If you are supplied warranty parts without warranty labor, Nieco or your warranty parts supplier may require the parts to be returned to the factory as a condition of receiving the warranty parts. This is particularly true of high value important components as motors and controls, or any parts showing a pattern of failure. If required, Nieco will pay the return freight cost and give instructions via your servicer on how to return the parts. Warranty parts will be shipped by your Distributor or Service Center from their parts center by the least expensive means. If you require more immediate shipment, your service parts supplier may charge additional for this expedited freight service.

If you have qualified maintenance employees or wish to use a qualified non-Nieco agency for warranty labor service otherwise covered under this Nieco warranty, you or your servicer may apply to your Nieco Regional Manager for certification as an alternate Nieco servicer. Such servicer shall be solely responsible to the using customer for all actions and liabilities. If the Nieco Regional Manager qualifies such servicer, Nieco will pay scheduled warranty allowances to the customer for warranty work performed by these alternative servicers. This payment will not include any travel time. Nieco will provide this schedule and limitations when the servicer is qualified and accepted.



This warranty is valid for North America and most other countries. Mandated warranties in some countries may vary due to specific warranty laws, requirements or commercial practices or customs in these various countries. Check with the country Nieco Distributor for variations from this basic Nieco warranty.

The parts schedules listed by models are those parts that are warranted by Nieco. If the part requires service replacement, your Nieco Servicer will do it, within the terms of this warranty. If your restaurant requires additional service or travel time, your Servicer will make an extra charge for those services or distances.

If the part is a user replacement part, you will be sent the part as described in this warranty. Your servicer will not install it as part of their warranty service.

Nieco P/N	Ignition and Gas System
2177 2209-05 10291 12741 16407 16408 16921	Regulator, RV47L, 1/2" Combination Gas Valve 3/4, 24VDC Hot Surface Igniter, 24V (Glow Plug) Solenoid Valve, 24VAC 1/4" Compression Fitting Thermocouple Probe, Short, 5.5" Thermocouple Probe, Long, 11.63" Ignition Module, 24V
	Electric Elements
15691 16055 15650	Element, 220V, 950W Element, 220V, 725W Warmer Element, 220V, 900W
	Date Material Electrical Commences
	Drive Motor and Electrical Components
4412-DC 10529 11965 12725 13579 13727 13570-B 14572 15161 15480	Relay (input 3-32VDC, output 240V/25A) Transformer, 240VAC input, 24VAC output Holding Cabinet Circuit Breaker Bridge Rectifier Motor Reverse Switch Speed Control Base Load Sensing Control Base Brushless Motor Multi-Product Speed Control Main Switch, Panel Mount Rocker, 50 amp
10529 11965 12725 13579 13727 13570-B 14572 15161	Relay (input 3-32VDC, output 240V/25A) Transformer, 240VAC input, 24VAC output Holding Cabinet Circuit Breaker Bridge Rectifier Motor Reverse Switch Speed Control Base Load Sensing Control Base Brushless Motor Multi-Product Speed Control





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