

# Service

## Gas Self-Clean Downdraft Ranges

This manual replaces RS2310003 Rev. 4.

Service Manual for  
Amana®

Models and manufacturing  
numbers in this manual.

AGDS901	P1131817N
AGDS901	P1131821N
AGDS901	P1131824N
AGDS901	P1131825N
AGDS901	P1131826N
AGDS901	P1131827N
ADGS901	P1131829N
AGDS902	P1131828N
AGDS902	P1131831N
AGDS902	P1131833N

This manual is to be used by qualified appliance technicians only. Amana does not assume any responsibility for property damage or personal injury for improper service procedures done by an unqualified person.

The Amana logo is written in a bold, italicized, sans-serif font.

RS2310003  
Revision 5  
February 2001

# Important Information

Pride and workmanship go into every product to provide our customers with quality products. It is possible, however, that during its lifetime a product may require service. Products should be serviced only by a qualified service technician who is familiar with the safety procedures required in the repair and who is equipped with the proper tools, parts, testing instruments and the appropriate service manual. **REVIEW ALL SERVICE INFORMATION IN THE APPROPRIATE SERVICE MANUAL BEFORE BEGINNING REPAIRS.**

## Important Notices for Consumers and Servicers



### WARNING

To avoid risk of serious injury or death, repairs should not be attempted by an unauthorized person, dangerous conditions (such as exposure to electrical shock) may result.



### CAUTION

Amana will not be responsible for any injury or property damage from improper service procedures. If performing service on your own product, assume responsibility for any personal injury or property damage which may result.

To locate an authorized servicer, consult your telephone book or the dealer from whom you purchased this product. For further assistance, contact: 1 (800) 628-5782 first, if no answer call number listed below.

CONSUMER AFFAIRS DEPT.  
AMANA APPLIANCES  
AMANA, IOWA 52204

**OR  
CALL**

1 (800) 843-0304

If outside the United States contact:

AMANA  
ATTN: CONSUMER AFFAIRS DEPT  
AMANA, IOWA 52204, USA  
Telephone: (319) 622-5511  
Facsimile: (319) 622-2180  
TELEX: 4330076 AMANA  
CABLE: "AMANA", AMANA, IOWA, USA

## Recognize Safety Symbols, Words, and Labels



### DANGER

**DANGER**—Immediate hazards which **WILL** result in severe personal injury or death.



### WARNING

**WARNING**—Hazards or unsafe practices which **COULD** result in severe personal injury or death.



### CAUTION

**CAUTION**—Hazards or unsafe practices which **COULD** result in minor personal injury or product or property damage.



### WARNING

AGDS901 and AGDS902 gas downdraft ranges are approved for use with natural gas only. No attempts should be made to convert product to burn any other fuel.

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# Important Safety Information

## **WARNING**

To reduce the risk of the appliance tipping, it must be secured by a properly installed anti-tip bracket(s). To make sure bracket has been installed properly, remove storage drawer and look under range with a flashlight. Bracket(s) must be engaged in the rear corner of the range.



- ALL RANGES CAN TIP
- INJURY TO PERSONS COULD RESULT



- INSTALL ANTI-TIP BRACKET(S) PACKED WITH RANGE
- SEE INSTALLATION INSTRUCTIONS

## **WARNING**

To avoid personal injury, do not sit, stand or lean on oven door or oven drawer.

## **WARNING**

To avoid risk of electrical shock, personal injury, or death, make sure your range has been properly grounded and always disconnect it from main power supply before any servicing.

## **WARNING**

To avoid personal injury or property damage, do not use grill or griddle if fan is not in operation. In unlikely event fan is not operating properly contact an authorized service technician.

## **WARNING**

This gas appliance contains or produces a chemical or chemicals which can cause death or serious illness and which are known to the state of California to cause cancer, birth defects or other reproductive harm. To reduce the risk from substances in the fuel or from fuel combustion make sure this appliance is installed, operated, and maintained according to the instructions in this manual.

## **CAUTION**

Do not obstruct the flow of combustion or ventilation air.

## **CAUTION**

Do not store combustible gasoline or other combustible materials near cooktop.

## **WARNING**

To avoid death, personal injury or property damage, information in this manual must be followed exactly.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **WHAT TO DO IF YOU SMELL GAS**
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

## **CAUTION**

Range designed for use with natural gas only.

# Important Safety Information

## All Appliances

1. Proper Installation—Be sure your appliance is properly installed and grounded by a qualified technician.
2. Never Use Your Appliance for Warming or Heating the Room.
3. Do Not Leave Children Alone—Children should not be alone or unattended in the area where the appliance is in use. They should never be allowed to sit or stand on any part of the appliance.
4. Wear Protective Apparel—Loose fitting or hanging garments should never be worn while using appliance.
5. User Servicing—Do not repair or replace any part of the appliance unless specifically recommended in the manual. All other servicing should be referred to a qualified technician.
6. Storage in or on Appliance—Flammable materials should not be stored in oven or near surface units.
7. Do Not Use Water on Grease Fires—Smother fire or flame, or use dry chemical or foam-type extinguisher.
8. Use Only Dry Potholders—Moist or damp potholders on hot surfaces may result in burns from steam. Do not let potholder touch elements. Do not use a towel or other bulky cloth.
9. Do not store items of interest to children above the range. Children climbing on the range may be injured.

## Surface Cooking Units

1. Use Proper Pan Size—This appliance is equipped with one or more surface units. Select utensils having flat bottoms large enough to cover the gas burner. The use of undersized utensils will expose a portion of the burner to direct contact and may result in ignition of clothing. Proper relationship of utensil to burner will also improve efficiency.
2. Never Leave Surface Units Unattended at High Heat Settings—Boil over causes smoking and greasy spill overs that may ignite.
3. Protective Liners—Do not use aluminum foil to line oven bottom except as suggested in the manual. Improper installation of these liners may result in a risk of electrical shock, or fire.
4. Glazed Cooking Utensils—Only certain types of glass, ceramic, earthenware, or other glazed utensils are suitable for range top service without breaking due to sudden change in temperature.
5. Utensil Handles Should be Turned Inward and Not Extend Over Adjacent Surface Units—To reduce the risk of burns, ignition of flammable materials, and spillage due to unintentional contact with the utensil, the handle of a utensil should be positioned so that it is turned inward, and does not extend over adjacent surface units.

6. Do Not Soak Removable Burner Elements—Burner elements should never be immersed in water.
7. Top burner flames should not extend beyond the edge of the cooking utensil. If the flames are too large, they can be adjusted following the directions in the installation instructions.

## Oven

1. Use Care When Opening Door—Let hot air or steam escape before removing or replacing food.
2. Do Not Heat Unopened Food Containers—Buildup of pressure may cause container to burst and result in injury.
3. Keep Oven Vent Ducts Unobstructed.
4. Placement of Oven Racks—Always place oven racks in desired location while oven is cool. If rack is removed while oven is hot, do not let potholder contact hot heating element in oven.
5. Never attempt to operate oven during power failure.

## Self-Cleaning Ovens

1. Do Not Clean Door Gasket—The door gasket is essential for a good seal. Care should be taken not to rub, damage, or move the gasket.
2. Do Not Use Oven Cleaners—No commercial oven cleaner or oven liner protective coating of any kind should be used in or around any part of the liner.
3. Clean Only Parts Listed in Manual.
4. Before Self-Cleaning the Oven—Remove broiler pan and grid, racks, and other utensils.

## In Case of Fire

Fires can occur as a result of over cooking or excessive grease. Though a fire is unlikely, if one occurs, proceed as follows:

### Gas Burner Fire

1. Smother the fire with a nonflammable lid or baking soda, or use a Class ABC or BC extinguisher. Not water. Not salt. Not flour.
2. As soon as it is safe to do so, turn the surface controls to *OFF*.

### Oven Fires

1. If you see smoke from your oven, do not open oven door.
2. Turn oven control to *OFF*.
3. As an added precaution, turn off power at main circuit breaker or fuse box.
4. Turn off gas supply.
5. Turn on vent to remove smoke.
6. Allow food or grease to burn itself out in oven.
7. If smoke and fire persist, call fire department.
8. If there is any damage to components, call your repair service before using range.

# Important Safety Information

## Precautions

- Do not cook food directly on range top surface, always use cookware.
- Do not mix household cleaning products. Chemical mixtures may interact with objectionable or even hazardous results.
- Do not put plastic items on warm cooking areas. They may stick and melt.
- Do not slide rough metal objects across range top surface. Scratching or metal marking can result.
- Do not use cookware with rough bottoms. They may scratch burner grates.
- Do not use damp sponge or dishcloth to clean range top. A film of soil-laden detergent water may collect on range top.
- Do not leave fat heating unless you remain nearby. Fat can ignite if overheated by spilling onto hot surfaces.
- Do not use range top surface as a cutting board.

## Delayed Ignition

### Surface Burners

Burner should ignite within 4 seconds. If burner does not ignite within 4 seconds turn control knob to OFF position. Try burner again. If burner still does not ignite within 4 seconds, contact an authorized servicer.

### Bake Burner Flame

Allow no more than 40–60 seconds before burner ignites and heat is felt. To check for heat, open oven door to first stop and place hand over oven door. If heat is not felt, turn temperature knob to OFF position. If burner repeatedly fails to ignite, contact an authorized servicer.

### Broiler Flame

Allow no more than 40–60 seconds before burner ignites and flame is seen. If burner does not ignite, turn temperature knob to OFF position. If burner repeatedly fails to ignite within 40–60 seconds, contact an authorized servicer.

Radiant screen style broiler flame should appear hazy or fuzzy. Haze should be no more than 3/8-inch thick. The radiant screen should begin to glow red or orange within 1–2 minutes.

# Installation Instructions

## Range Location

Choose a location based on following factors.

- Range is designed to be vented outdoors.
- Electrical rating is 12.5 KW, 120, 60 Hz.
- Drafts caused by home heating and air conditioning and open doors or windows can disrupt ventilation air pattern. Range should not be installed near windows or doors.
- Range can not be installed in a tunnel type wall opening. Air currents moving through tunnel can disrupt ventilation air pattern.
- Range can either be ducted through wall or through floor to outside.
- Make sure there is adequate space for proper installation.
- Carefully read all instructions before beginning installation.

Remove protective packing materials from range. Tape residue can be cleaned with a soft cloth and alcohol.

## Cabinet Opening

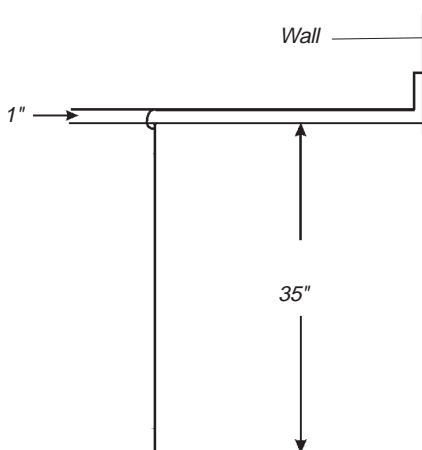


### WARNING

To avoid risk of burns or fire by reaching over burners, cabinet storage space located above range should be avoided.

Range should extend approximately 1½ inch from cabinet front to oven door handle. Remove venting kit from storage drawer. Using dimensions in figure below and shown in *Special Countertop Conditions* section to prepare cabinet opening.

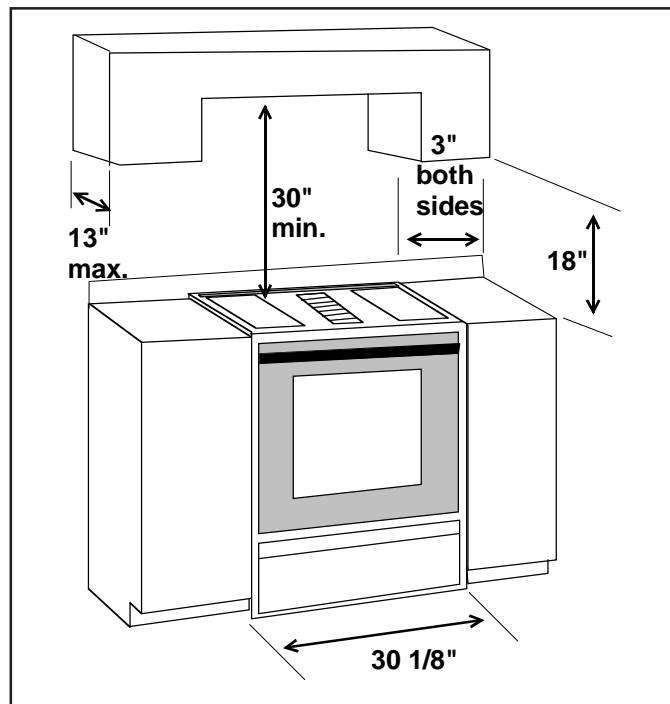
Standard Cabinet and Countertop Height



Range Dimensions:  
WIDTH - 29<sup>15</sup>/<sub>16</sub> inches  
DEPTH - 29 inches (with handle)  
HEIGHT - 36 inches

## Minimum Clearances to Combustible Surfaces

- Minimum clearance to rear wall is 0 inches.
- Minimum clearance to a vertical right or left side wall is 3 inches.
- Minimum clearance to countertop/cabinet on each side is 0 inches.
- Minimum of 30 inches between top of cooking surface and bottom of an unprotected wood or metal cabinet.



## Special Countertop Conditions

Irregular Cabinet and Countertop Heights such as ceramic tile tops cause cabinet and countertop to be higher than 36 inches. Follow instructions below when countertop is higher than 36 inches.

1. Raise leveling legs to maximum level.
2. Measure from floor to side trim. If measurement is less than height of countertop, floor must be shimmed.
3. Shim floor using a piece of plywood same size as range opening. Secure plywood to floor. Plywood must be as secure as original flooring.
4. Install anti-tip bracket and slide range into place.

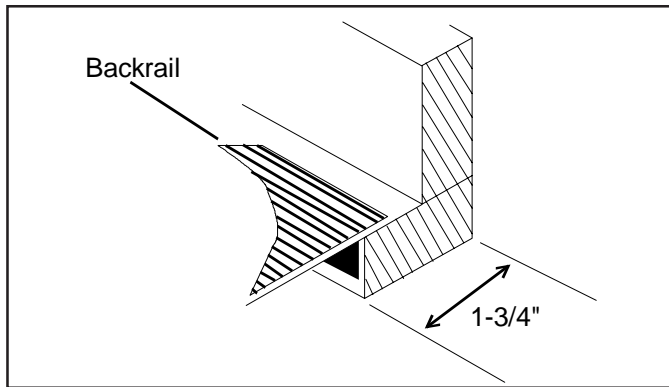
## Island or Peninsula Installation

Island or peninsula installations with 24 inches deep base cabinets must use flush back cabinets with no rear toe space to avoid range interference. If a rear toe space is desired, use 27 inches or deeper base cabinets.



# Installation Instructions

## Slide-In Installation



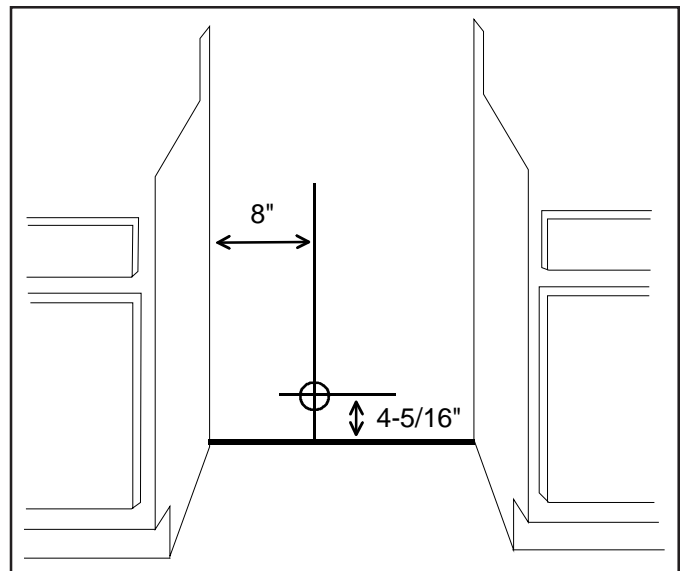
- For a manufactured countertop, with or without a backsplash, make cutout keeping rear dimension as illustrated. The backrail on back of range slides over manufactured countertop creating a tight fit.
- Backrail may not reach back wall because of countertop. Corner of backrail can be clipped off with a pair of wire cutters for a tighter fit.

## Duct Requirements

- Duct should be 6 inch round metal ducting. Island or peninsula installations may require 3<sup>1</sup>/<sub>4</sub> X 10 inch duct.
- To ensure proper ventilation, duct work must not exceed 60 equivalent feet.
- Curved fittings should not account for more than 50% of duct length.
- Flexible duct is not recommended because of irregular interior surface. If flexible duct is to be used, one foot is equal to 2 feet of metal duct. NEVER USE PLASTIC TYPE DRYER DUCTING.
- Do not vent into an attic or crawl space. Duct range outside.
- Flexible duct elbows are equal to twice as many feet as smooth metal elbows.
- Never install two elbow fittings next to each other. Two elbows installed together create a poor vent path and insufficient ventilation.
- Seal all duct joints tightly using duct tape. Openings left in ducting allow smoke and odor to escape inside house.
- For best performance, do not use more than three 90° elbows.
- 6 inch transition duct provided must be mechanically secured to exhaust blower outlet. Secure transition duct using two screws provided.

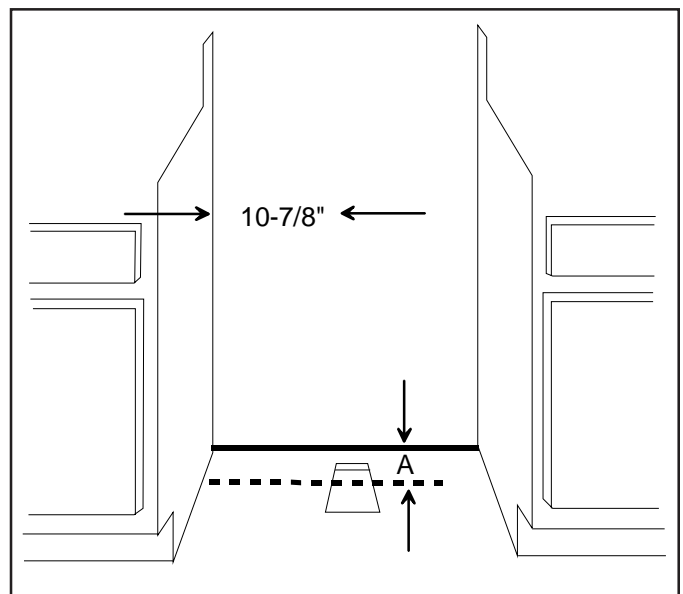
## Back Wall Duct Location

1. Locate studs in wall.
2. Measure and cut an opening for thimble as illustrated in figure below. Cutout should be 6<sup>1</sup>/<sub>8</sub> inch diameter circle.
3. Ducting is completed in *Back Wall Duct Connection* section.



## Floor Duct Location

1. Locate studs in floor.
2. Measure to locate center of floor duct location. See figure below.
  - For installation with countertop or backsplash behind range, measure 13<sup>1</sup>/<sub>8</sub> inches for dimension "A".
  - For installation without countertop or backsplash behind range, measure 11<sup>5</sup>/<sub>8</sub> inches for dimension "A".
3. Cut an opening for floor transition piece as illustrated in figure below. Cutout should be 7<sup>1</sup>/<sub>4</sub> x 7<sup>1</sup>/<sub>4</sub> inches square. If opening is not correctly aligned, duct does not connect properly.
4. Ducting is completed in *Floor Duct Connection* section.



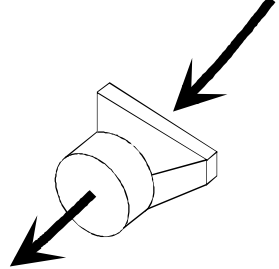
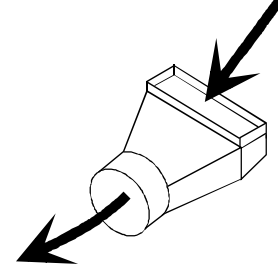
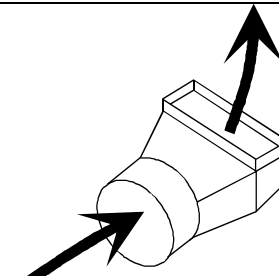
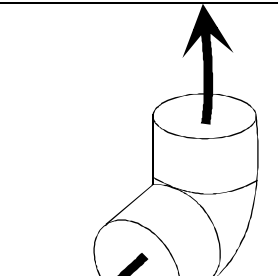
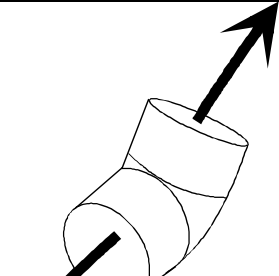
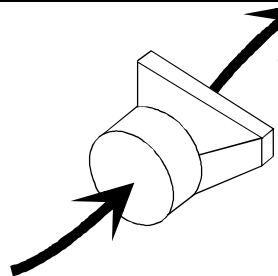
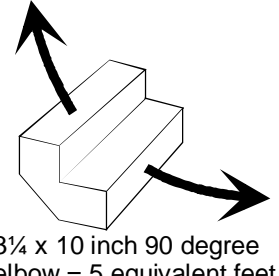
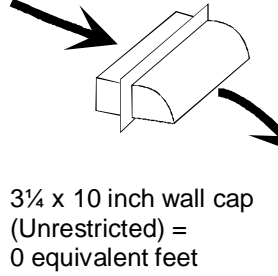
# Installation Instructions

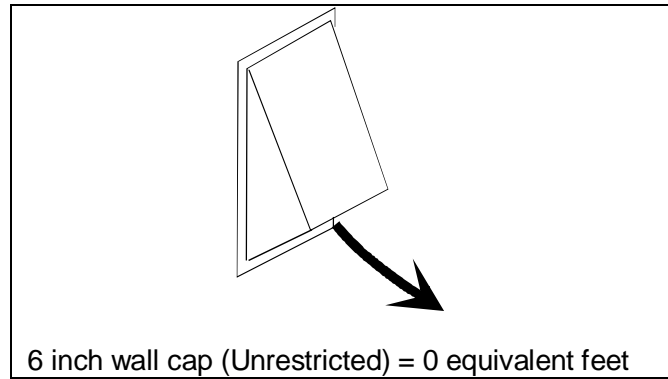
## Duct Length

Maximum allowable duct length is 60 equivalent feet.

- Use *Recommended Standard Fittings* in figures below to calculate duct length.
- Flexible duct is not recommended. However, if it is used, one foot is equal to two feet of smooth metal duct.

## Recommended Standard Fittings

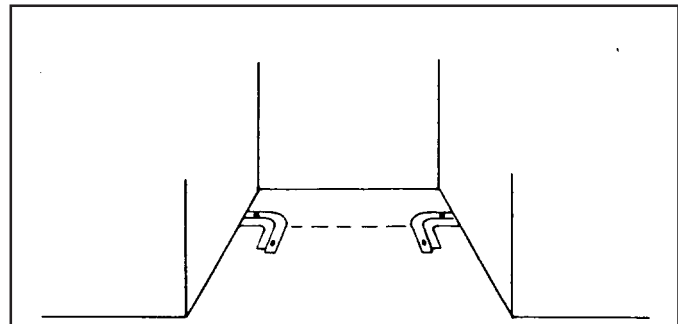
 <p>3/4 x 10 inch to 6 inch transition = 4½ equivalent feet</p>	 <p>3/4 x 10 inch to 6 inch transition = 5 equivalent feet</p>
 <p>6 inch to 3/4 x 10 inch transition = 9 equivalent feet</p>	 <p>6 inch 90 degree elbow = 5 equivalent feet</p>
 <p>6 inch 45 degree elbow = 2½ equivalent feet</p>	 <p>6 inch to 3/4 x 10 inch transition = 1 equivalent foot</p>
 <p>3/4 x 10 inch 90 degree elbow = 5 equivalent feet</p>	 <p>3/4 x 10 inch wall cap (Unrestricted) = 0 equivalent feet</p>



## Anti-tip Bracket Installation

To reduce risk of range tipping, secure range with a properly installed anti-tip device packed with range.

1. Measure 5<sup>1</sup>/<sub>8</sub> inches from back wall on right and left side of cabinet cutout. Mark measurements on floor and draw a straight line connecting marks.
2. Position anti-tip bracket.
  - If range is installed beside cabinet(s), place anti-tip bracket with inside edge over line drawn on floor and end of bracket against cabinet.
  - If range is not installed beside cabinet(s), position range where it will be installed. Draw a line along side of range on floor from front to back. Remove range. Place anti-tip bracket with inside edge over line drawn 5<sup>1</sup>/<sub>8</sub> inches from back wall and end of bracket over line drawn along side of range on floor.
  - Anti-tip bracket can be installed on either right or left side.



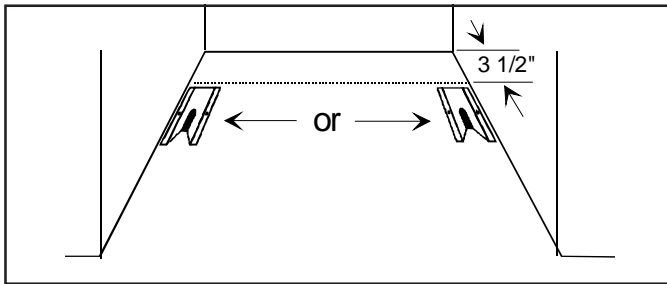
3. Mark 2 hole locations in anti-tip bracket.
4. Drill 2 holes.
  - If drilling into wood, use a 3/32 inch drill bit.
  - If drilling into concrete, use a 3/16 inch masonry drill bit and insert plastic anchors.
5. Secure bracket to floor using screws supplied.

# Installation Instructions

## Newer Anti-tip Bracket

To reduce risk of range tipping, secure range with a properly installed anti-tip bracket.

1. Measure 3 1/2 inches from back wall on right and left side of cabinet cutout. Mark measurements on floor and draw a straight line connecting marks.
2. Position anti-tip bracket.
  - If range is installed beside cabinet(s), place anti-tip bracket with back edge on line drawn on floor and side of bracket against cabinet.
  - If range is not installed beside cabinet(s), position range where it will be installed. Draw a line along side of range on floor from front to back. Remove range. Place anti-tip bracket with back edge over line drawn 3 1/2 inches from back wall and side of bracket over line drawn along side of range on floor.
  - Anti-tip bracket can be installed on either right or left side.



3. Mark 2 hole locations in anti-tip bracket.
4. Drill 2 holes.
  - If drilling into wood, use a 3/32 inch drill bit.
  - If drilling into concrete, use a 3/16 inch masonry drill bit and insert plastic anchors.
5. Secure bracket to floor using screws supplied.
6. Slide range into position.
7. Remove range storage drawer and confirm anti-tip bracket is engaged with range leveling leg.

## Electrical Connection Requirements



### WARNING

To avoid the risk of serious electrical shock or property damage, do not cut or remove the third (ground) prong from the power plug. A 3-wire grounded conductor system must be used. Relying on the flexible connector, hard piping or any other part of the gas supply line as a ground may cause fire, electrical shock and/or erratic control operation.

Range must be electrically grounded in accordance with local codes or in the absence of local codes, with the National Electrical Code, ANSI/NFPA No. 70-Latest Edition. In Canada, electrical connections are to be made in accordance with CSA C22.1 Canadian Electrical Code. Use a 120 volt, 60 hertz 3 prong receptacle protected by a 15 amp circuit breaker or time delay fuse.

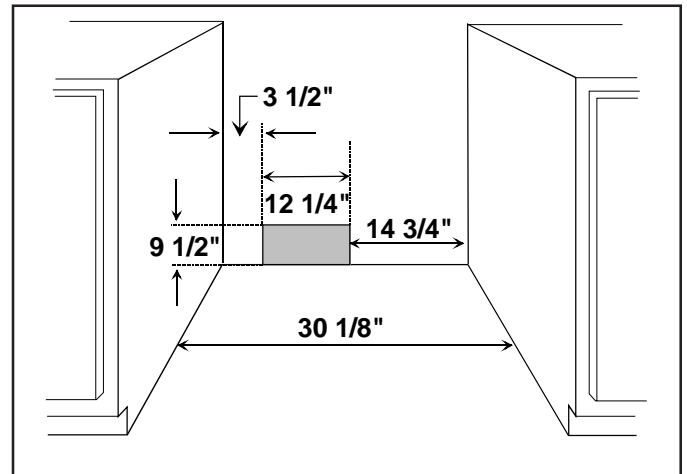
A qualified electrician should confirm the outlet is properly grounded.

If a 2-prong outlet is encountered, range owner must replace outlet before using range. Do not cut off cord or remove grounding plug.

Range wiring diagram is located on the bottom of the storage drawer.

## Electrical Connection Clearance

Electrical connection must be located in the shaded area shown in Figure below. Electrical connection must not interfere with gas connection.



## Gas Connection Requirements



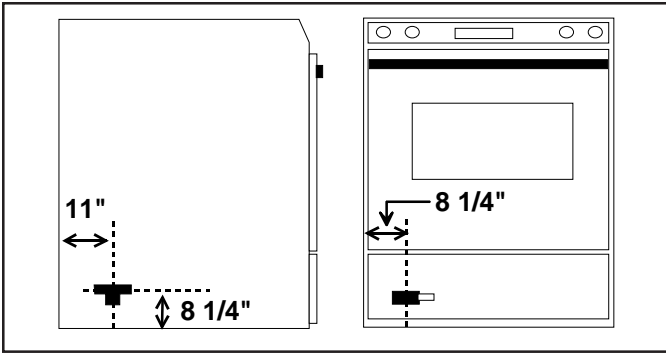
### CAUTION

Range designed for use with natural gas only.

Before connecting this appliance to the gas supply piping system, confirm that installation meets the requirements of local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1-Latest Edition. In Canada installation must conform with local codes or the current Natural Gas Installation Code CAN/CGA-B149.1.

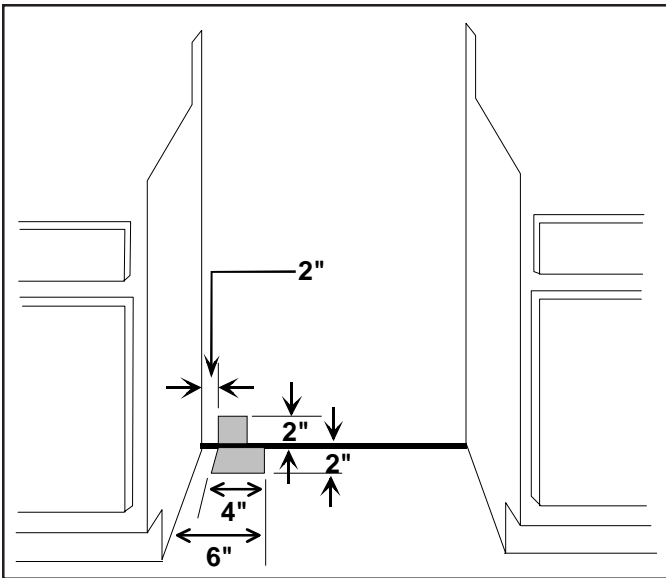
# Installation Instructions

## Pressure Regulator Location



## Gas Supply Location

Gas supply must be located in the shaded area shown below. Gas connection must not interfere with the electrical connection.



## Gas Supply Pressure

### **WARNING**

To avoid property damage, maximum gas supply pressure must not exceed 14" WCP.

- The appliance and its individual shut-off 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 (3.5kPa) (14" WCP).
- The appliance must be isolated from gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5kPa) (14" WCP).
- Gas supply pressure for checking regulator setting must be at least 1" WCP above manifold pressure shown on rating label.

## Gas Connection

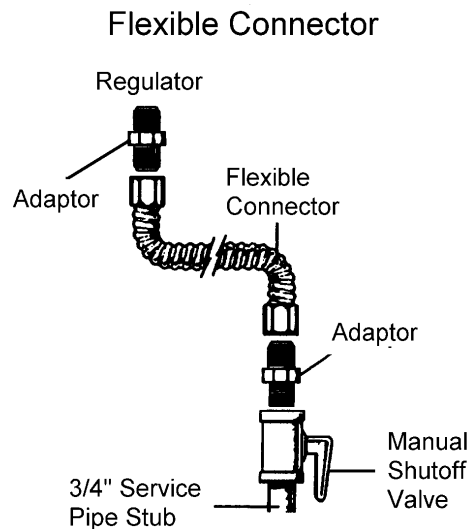
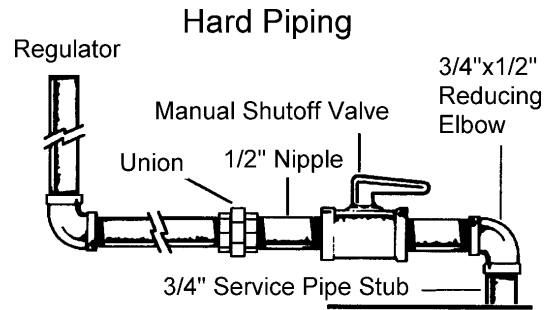
Connect gas supply to regulator using hard pipe or a flexible connector. Pressure regulator supplied with this appliance has a 1/2 inch NPT female connection. See figure below.

- A manual shut-off, not supplied with range, must be installed in an accessible location outside of range.
- Use joint compound that is resistant to action of propane gas on all male pipe threads.
- Use supplied pressure regulator only.
- Do not over tighten regulator when attaching to gas manifold pipe or hardpipe. Overtightening may crack regulator.

### **WARNING**

To avoid property damage or personal injury, only use a new flexible connector that is AGA design certified.

- Do not use an old connector.
- Do not reuse a connector after moving appliance.
- Do not overtighten regulator connector fitting.



# Installation Instructions

## Testing for Gas Leaks

After final gas connection is made, turn on manual gas valve and test all connections in gas supply piping and range for gas leaks.



### WARNING

To avoid property damage or serious personal injury, never use a lighted match to test for gas leaks.

1. Place soap suds on connections.
  - Bubbles appear if leak is present.
2. If bubbles appear, shut off gas supply valve.
3. Tighten joint if leak is at factory fitting.
  - If leak is not at factory fitting, unscrew, apply more joint compound, and tighten to correct leak.
4. Retest connection for leak after tightening.
  - Retest any connections that were disturbed.

## Seal Openings

Any openings in wall behind the range or on floor under range must be sealed before sliding the range into position.

## Installing Side Trim

If desired, optional side trim provided can be installed on range. Side trim must be installed above countertop level and tapped down into place.

Side trim can be mounted in several different positions depending on countertop opening, cabinet structure, and range features.

### Freestanding with Backsplash

To mount trim flush with front of countertop, use #3 trim holes and "A" range holes.

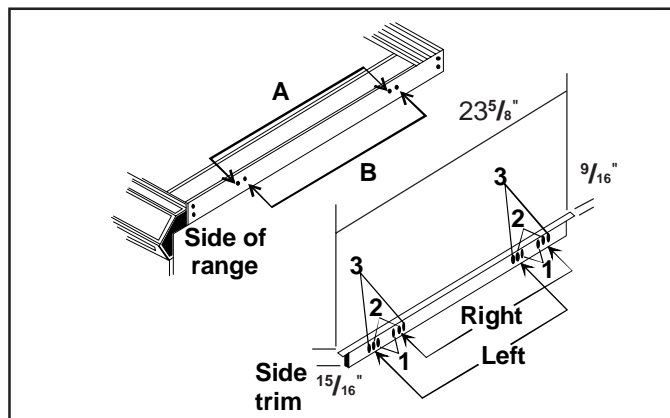
### 4-inch Backrail Kit and Backsplash

To mount trim flush with front of countertop, use #3 trim holes and "A" range holes.

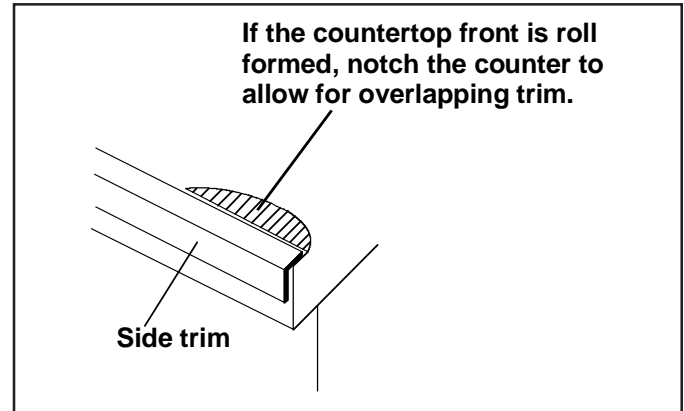
### Optional Mounting

"A" range holes allow an extra  $\frac{3}{8}$  inch forward adjustment. Trim holes #1, #2, and #3 allow a  $\frac{1}{2}$  inch adjustment. Trim can be mounted in any desired location using holes provided.

### Trim Hole Locations

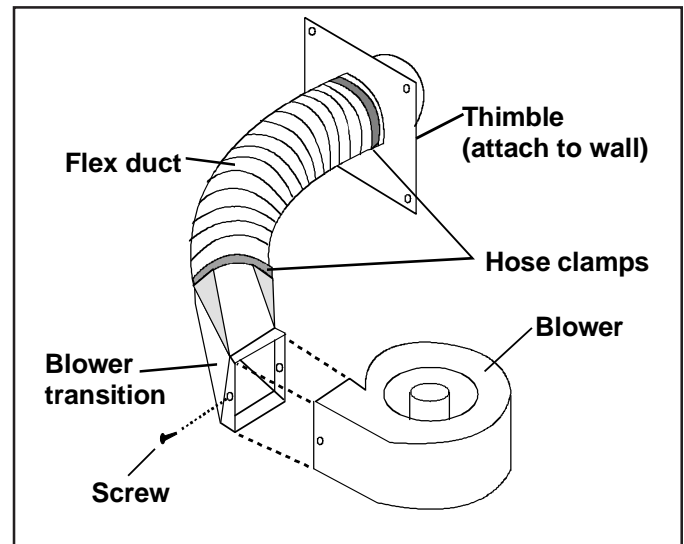


## Roll Formed Countertop



## Back Wall Duct Connection

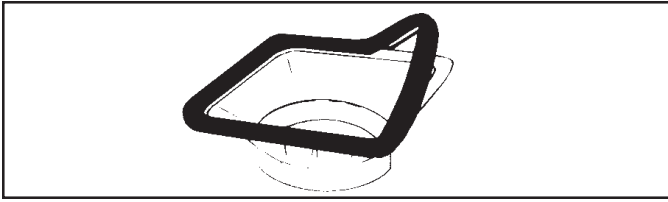
1. Remove screw in front of blower transition separating blower transition from blower housing.
2. Place hose clamp around round end of blower transition and attach flex duct to blower transition using hose clamp.
3. Place long end of thimble into wall and secure thimble using four screws provided, one in each corner.
4. Place hose clamp provided around short end of thimble. Attach opposite end of flex duct to short end of thimble using hose clamp.
5. Connect electrical supply.
6. Carefully push range back into position. Avoid pinching transition piece or flex duct.
7. Using guide screw to locate hole in rear of blower housing, position transition **inside** blower housing. Rotate transition until hole in front of blower housing is aligned. Secure transition with screw provided.
8. Seal all duct joints with duct tape.
9. Check under range to be sure leveling leg is fully engaged in the anti-tip bracket.
10. Install storage drawer.



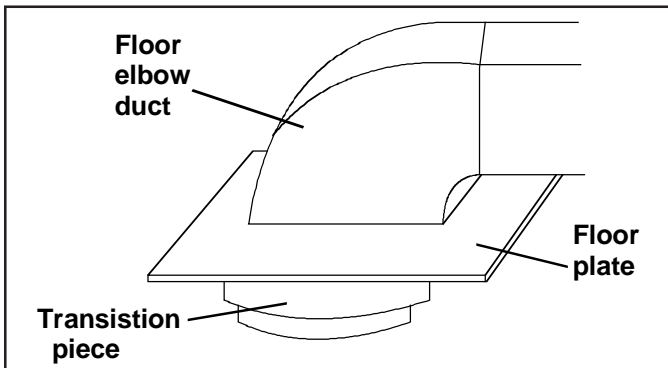
# Installation Instructions

## Floor Duct Connection

1. Attach rubber gasket around edge of transition piece.
  - Flat side of rubber gasket must be on under side of transition piece. See figure below.



2. Place round end of transition piece into floor. Secure transition piece using 8 screws provided in kit.
  - Lift edge of rubber gasket to install screws.
  - Make sure round edge of gasket is facing up.
3. Insert floor plate into elbow duct.
  - When installed, wide flange of floor plate should face toward back of range. If gap exists in front of cutout, rotate transition piece 180°.
4. Attach floor elbow duct to floor plate using 2 screws provided.
  - Tighten only front screw.
5. Attach floor elbow duct to blower using 2 screws provided.
  - Floor elbow duct should be inside blower.
6. Connect electrical supply.
7. Push range into position.
  - Tilt range slightly while pushing in range. Tilting range allows floor plate to clear gasket.
  - Make sure that floor elbow duct is directly over transition piece and rubber gasket.
  - Rubber gasket provides a seal between floor elbow and transition piece. See figure below.



8. Loosen front screw attaching floor elbow duct plate and floor elbow duct.
9. Slide floor plate down tight against rubber gasket and tighten screw.
10. Seal joint between blower and elbow transition piece with duct tape.
  - Check under range to ensure anti-tip bracket is engaged.
11. Install storage drawer.

## Level Range

Carefully level range using legs provided. Range must be level to cook and bake uniformly.

- Place a level on top oven rack or on top of range when leveling.
- Leveling legs must be extended out ¼ inch to engage anti-tip bracket.

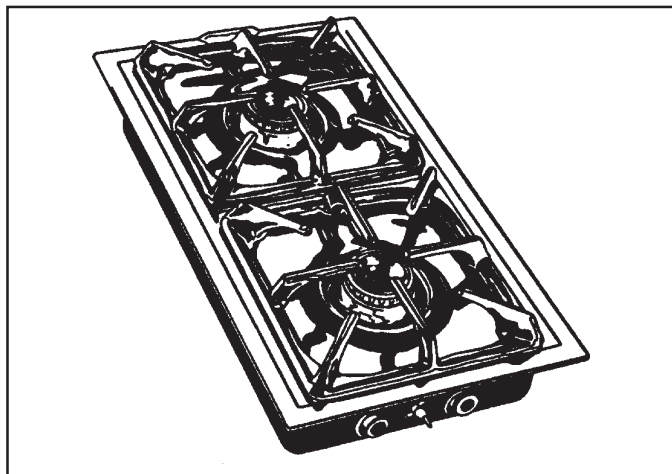
## Removal and Replacement of Range

1. Disconnect electrical supply at house circuit breaker.
2. Disconnect range venting.
3. Disconnect power supply cord.
4. Remove anti-tip bracket.
5. Install anti-tip bracket into new location using instructions provided with bracket.
6. To reinstall range follow instructions in *Installation* section of this manual.

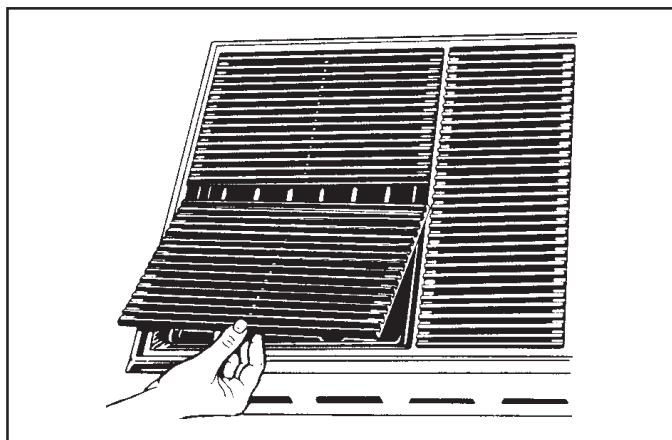
# Modules

This range features a choice of 4 different modules, shown below. Grill, griddle, and rotisserie module must be install on right side of range. Burner module may be installed on either side. Information on how to purchase modules can be obtained by calling your local authorized dealer.

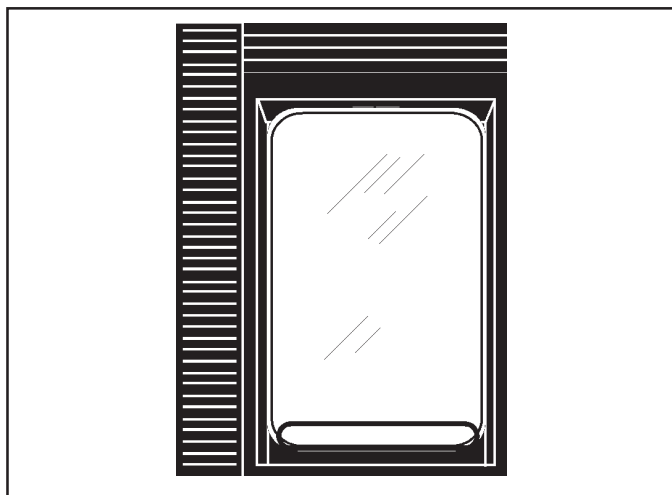
## Two Burner Module



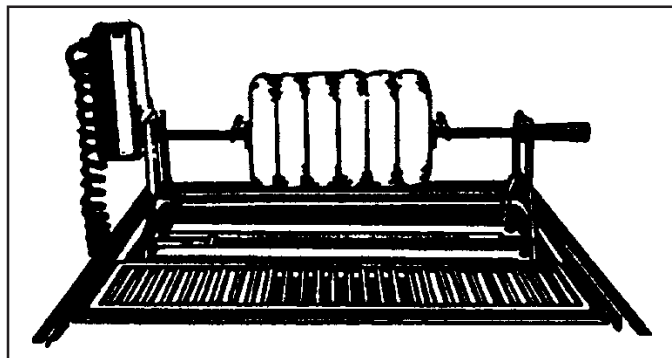
## Grill Module



## Griddle Module



## Rotisserie Module



## Installing Two Burner Module

### **WARNING**

To avoid risk of personal injury, all controls must be in off position before removing or installing modules.

1. Turn all control knobs to *OFF* position.
2. While holding module with air shutter openings towards rear, push module onto orifices.
  - Module must cover orifices completely.
3. Place module into module reservoir.
  - When module is installed correctly, it should not slide.

## Removing Two Burner Module

1. Turn all control knobs to *OFF* position.
2. Locate tab on front of module.
3. Lift module up and slide out while holding by front tab.
4. After module clears orifices, remove module from range.

# Modules

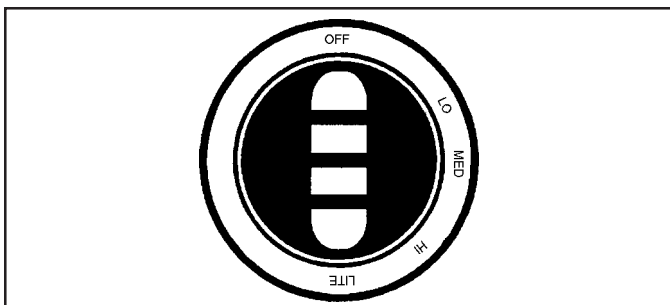
## Operating Two Burner Module



### WARNING

To avoid risk of serious personal injury, property damage, or fire, do not leave burners unattended while in operation. Grease and spillovers can ignite causing a fire.

1. Push in and turn control knob counterclockwise to *LITE* position.



2. After gas ignites, turn control to the desired setting.
  - Each control knob can be set to any required cooking temperature. Burner settings do not have distinct clicks.
  - See burner settings below.

**LO** Use to prepare food at less than boiling temperatures or to simmer.

**MED** Use to maintain boiling of larger amounts of food, low temperature frying and to maintain correct pressure in a pressure cooker.

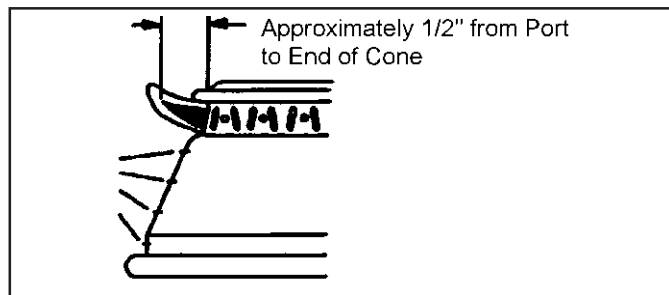
**HI** Use to bring food to boiling temperatures. When food is boiling temperature, burner control setting should be reduced.

3. Turn control knob to *OFF* position when finished cooking.

## Adjusting Burner Flame

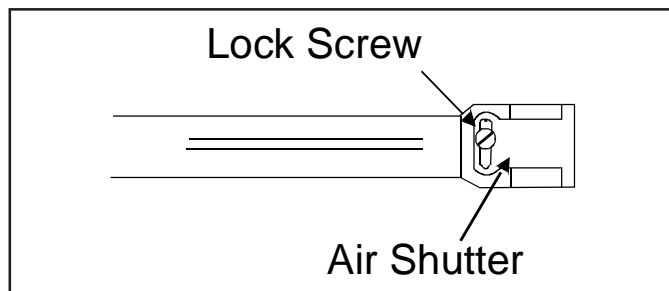
Properly adjusted burner flames are clean and blue with a distinct inner cone approximately  $\frac{1}{4}$ " to  $\frac{1}{2}$ " long.

- If burner flame is too large or small, See *Adjusting Low Burner Flame Size* section.
- If burner flame is blowing or noisy, reduce airflow to burner. See *Adjusting Airflow to Burner* section.
- If burner flame is soft and lazy, increase airflow to burner. See *Adjusting Airflow to Burner* section.



## Adjusting Airflow to Burner

1. Remove grates.
2. Remove module from range.
  - See *Removing Two Burner Module* section.
3. Remove module top by pressing on two release buttons on the side of the module simultaneously while lifting up module top.
4. Replace module without top in module reservoir.
  - See *Installing Two Burner Module* section.
5. Loosen air shutter lock screw.
  - See *Operating Two Burner Module* section.



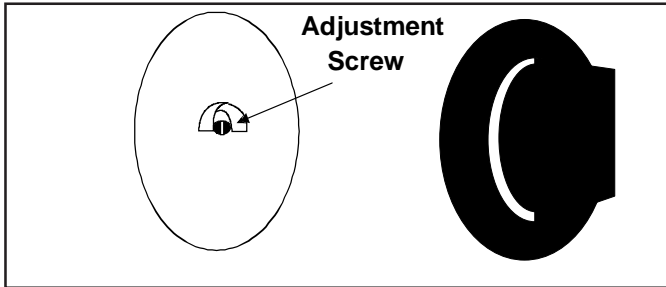
6. Open or close air shutter depending on appearance of burner flame.
7. After burner flame is properly adjusted, tighten air shutter lock screw.
8. Remove module from range, replace module top, and reinstall in range.



# Modules

## Adjusting Low Burner Flame Size

1. Push and turn burner control knob to *LITE* position.
  - Burner sparks until gas ignites.
2. Set flame to low position.
3. Remove burner control knob.



4. Turn screw in center of burner control stem using small standard screwdriver until flame is adjusted.
5. Replace control knob.
6. Push and turn burner control to test burner flame.

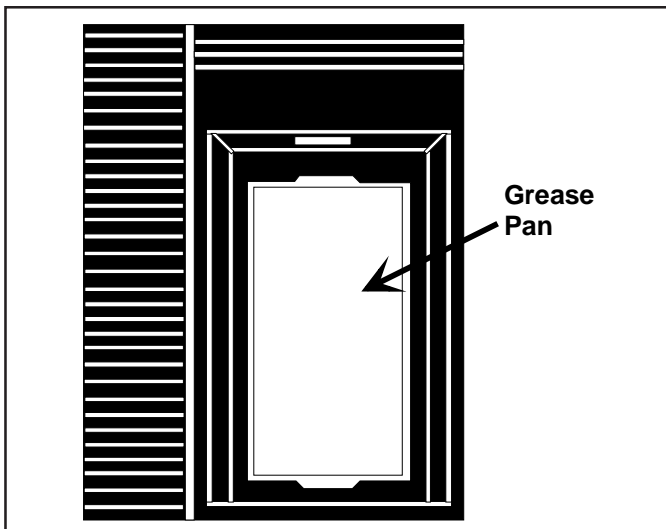
## Installing Grill Module

Grill module must be installed in right module reservoir. Before operating grill module for first time, lightly coat top of grill grates with cooking oil to prevent sticking.

### **WARNING**

To avoid risk of personal injury, all controls must be in off position before removing or installing modules.

1. Turn all control knobs to *OFF* position.
2. Place grease pan into module reservoir as shown below.



3. Remove grill grates from grill module.
4. While holding module with air shutter openings towards rear, push module onto orifices.
  - Module must cover orifices completely.

5. Place module into module reservoir.
  - When module is installed correctly, it should not slide.
6. Replace grill grates.

## Removing Grill Module

1. Turn all control knobs to *OFF* position. Allow grill module to cool.
2. Remove grill grates.
3. Locate tab on front of module.
4. Lift module up and slide out while holding by front tab.
5. After module clears orifices, remove module from range.

## Operating Grill Module

### **WARNING**

To avoid risk of serious personal injury, property damage, or fire, do not leave grill unattended while in operation. Grease and spillovers can ignite causing a fire.

### **CAUTION**

To avoid risk of property damage, do not use metal cooking utensils on grill.

1. Before operating grill module, lightly coat top of grill grates with cooking oil to prevent sticking.
2. Trim excess fats from meats.
3. Push in and turn right front control knob to *LITE* position.
4. After right side module burner ignites, turn control to desired setting.
5. Push in and turn the right rear control knob to *LITE* position.
6. After left side module burner ignites, turn control to desired setting.
  - Fan automatically comes on at low speed.
7. Preheat grill for approximately 10 minutes to improve charbroiled flavor and to decrease food sticking.
8. When finished cooking, turn control knob to *OFF* position.
9. Wait 15 minutes for grill pan and grill accessories to cool before cleaning.

# Modules

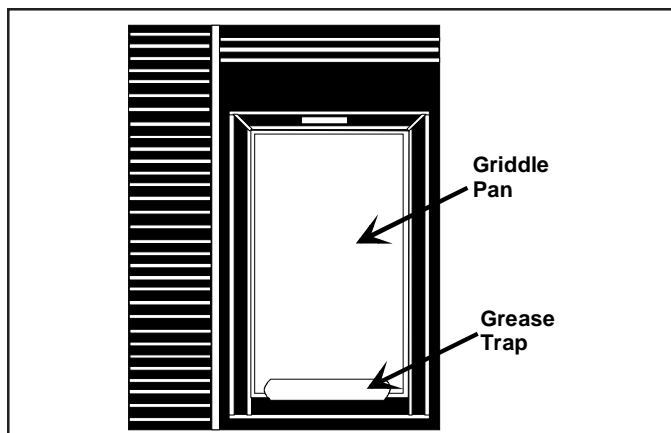
## Installing Griddle

Griddle must be installed in right module reservoir.

### **WARNING**

To avoid risk of personal injury, all controls must be in off position before removing or installing modules.

1. Turn all control knobs to *OFF* position.
2. Remove grill grates from grill module.
3. Insert grease pan and grill module according to *Installing Grill Module* section.
4. Place griddle pan on top of grill module with grease trap toward front of range. Do not place griddle on grill grates.



## Operating Griddle

### **WARNING**

To avoid risk of serious personal injury, property damage, or fire, do not leave griddle unattended while in operation. Grease and spillovers can ignite causing a fire.

### **CAUTION**

To avoid risk of property damage, do not use metal cooking utensils on griddle.

1. Before using griddle, lightly coat griddle with cooking oil to prevent sticking.
2. Trim excess fats from meat.
3. Push in and turn right front control knob to "LITE" position.
4. After right side module burner ignites, turn control to desired setting.
5. Push in and turn the right rear control knob to "LITE" position.
6. After left side module burner ignites, turn control to desired setting.
  - Fan automatically come on at low speed.

7. Preheat griddle for approximately 10 minutes to flavor and decrease food sticking.
8. When finished cooking, turn control knob to "OFF" position.
9. Wait 15 minutes for griddle to cool before cleaning.

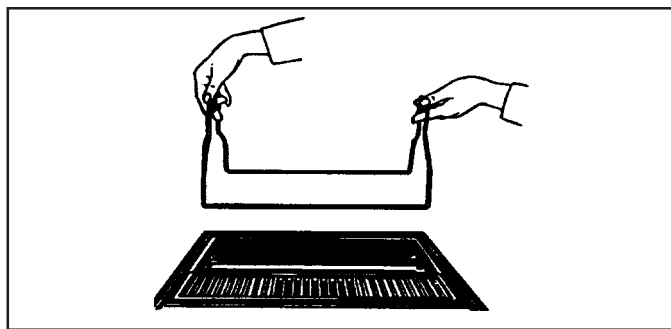
## Installing Rotisserie

Rotisserie must be installed in right module reservoir.

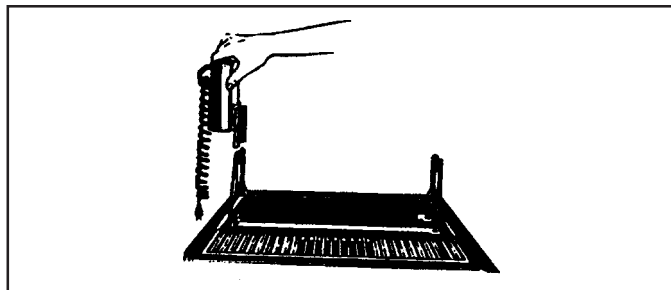
### **WARNING**

To avoid risk of personal injury, all controls must be in off position before removing or installing modules.

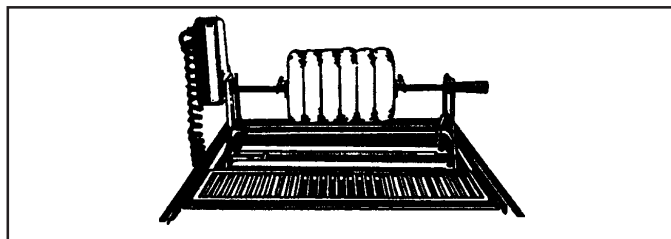
1. Turn all control knobs to "OFF" position.
2. Remove grill grates from grill module.
3. Insert grease pan and grill module according to *Installing Grill Module* section.
4. Place rotisserie rack on grill module as shown below.



5. Slide rotisserie motor on rack as shown below.



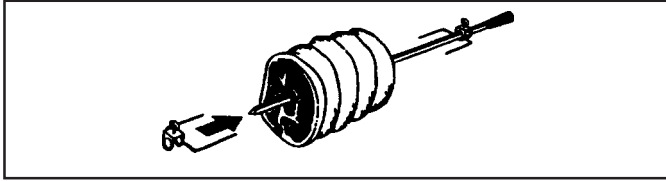
6. After meat is put on spit and spit is placed on rack, plug rotisserie into 120 volt AC outlet.
  - See *Placing Meat on Spit* section.



# Modules

## Placing Meat on Spit

Cook 3 to 3½ pound portions of meat for best results.



1. Slide small fork on spit so points face away from handle.
2. Push meat onto spit so meat is centered on spit.
  - Spit must be through center of meat so weight is balanced as meat turns.
3. Slide second small fork onto spit so points face towards handle.
4. Push small forks into meat and tighten down set screw on both forks.
5. Push end of spit into socket on rotisserie motor.
6. Rest handle on the rotisserie rack.

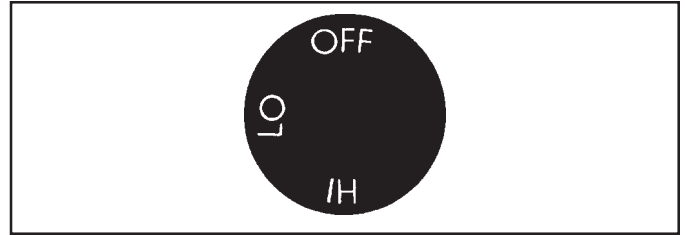
## Operating Rotisserie

1. Trim excess fats from meats
2. Plug rotisserie into 120 volt AC outlet and move switch to *ON* position.
3. Push in and turn right front control knob to *LITE* position.
4. After right side module burner ignites, turn control to desired setting.
5. Push in and turn the right rear control knob to *LITE* position.
6. After left side module burner ignites, turn control to desired setting.
  - Fan automatically comes on at low speed.
7. When finished cooking, turn control knob to *OFF* position.
8. Wait 15 minutes for rotisserie to cool before cleaning.

## Exhaust Fan

Two speed fan is built into center of range top. Fan is located beneath vent area. Fan operation is necessary to remove cooking vapors, odors, and smoke.

- Fan automatically turns on at low speed when using grill or griddle. Fan can be manually turned to high speed.
  - Fan cannot be turned off while grill, griddle, or rotisserie are operating.
  - Fan can be used during any cooking operation or to ventilate cooking area.
1. Turn fan knob to desired setting.
  2. Turn fan to *OFF* when you are finished using it.



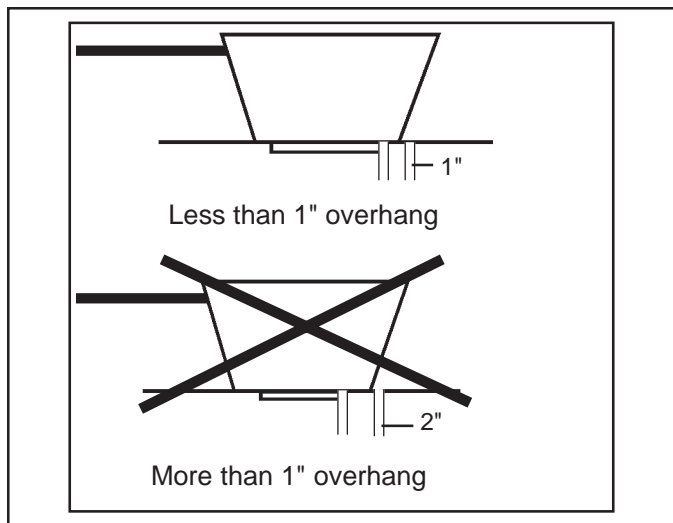
## Oven Light

- Used to light inside of oven.
- Switch is located on control panel.

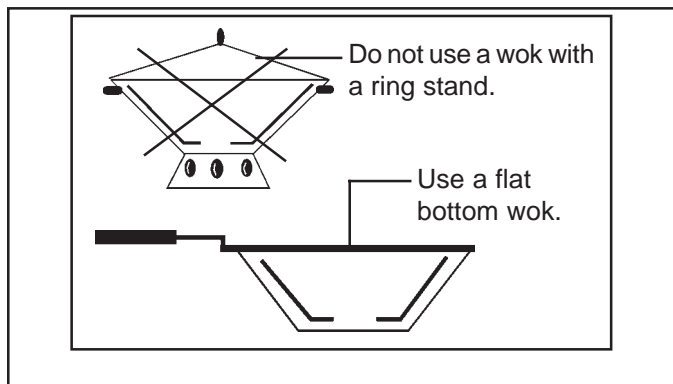
# General Information

## Cooking Utensils

- Use proper pan size. Do not use a pan that has a bottom smaller than element. Do not use utensils that overhang element by more than 1 inch.



- Use care when using glazed cooking utensils. Some glass, earthenware, or other glazed utensils break due to sudden temperature changes.
- Select utensils without broken or loose handles. Handles should not be heavy enough to tilt pan.
- Select utensils with flat bottoms.
- Do not use a wok with a ring stand.

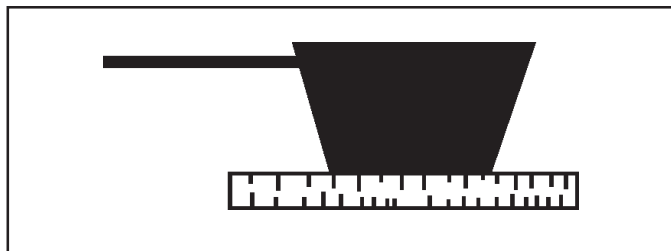


Utensil Material Characteristics		
Type	Temperature Response	Uses
Aluminum	Heats and Cools Quickly	Frying, Braising, Roasting
Cast Iron	Heats and Cools Slowly	Low Heat Cooking, Frying
Copper Tin Lined	Heats and Cools Quickly	Gourmet Cooking, Wine Sauces, Egg Dishes
Enamelware	Depends on Base Metal	Low Heat Cooking
Ceramic (Glass)	Heats and Cools Slowly	Low Heat Cooking
Stainless Steel	Heats and Cools at Moderate Rate	Soups, Sauces, Vegetables, General Cooking

## Pan Bottom Test

Determine if pan has a flat bottom. For best cooking results, use a pan with a flat bottom.

1. Rotate a ruler along bottom of pan. If pan is not flat, gaps between bottom of pan and edge of ruler occur.
2. A small groove or mark on a pan does not effect cooking times. However, if a pan has a gap, formed rings, or an uneven bottom, it does not cook efficiently and in some cases may not boil water.



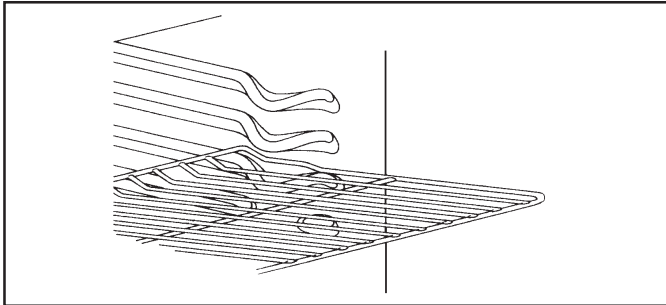
# General Information

Follow these recommendations only as a guide for times and temperature. Times, rack position, and temperatures may vary depending on conditions and food type. For best results, always check food at minimum time. When roasting, choose rack position based on size of food item.

## Oven Rack Placement

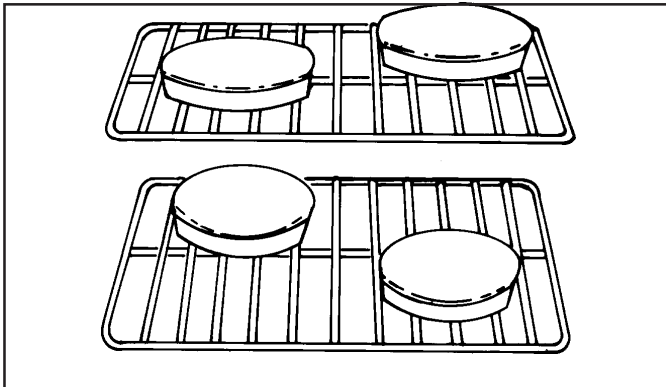
Position oven rack before turning on oven.

1. Pull rack forward to stop position.
2. Raise front edge of rack and pull until rack is out of oven.
3. Place rack in new rack position.
  - Curved edge of rack must be toward rear of oven.



## Pan Placement

- Keep pans and baking sheets 2 inches from oven walls.
- Stagger pans placed on different racks so one is not directly over the other.



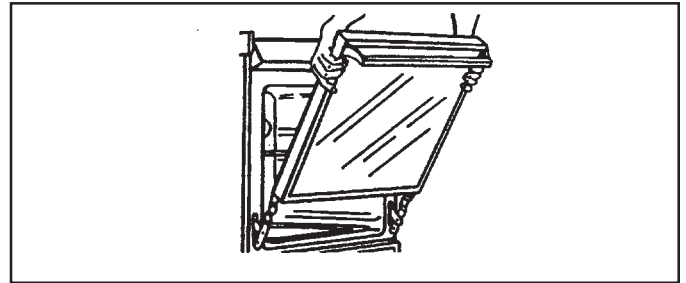
## Removing Oven Door

### CAUTION

To avoid personal injury or property damage, handle oven door with care.

- Door is heavy and can be damaged if dropped.
- Avoid placing hands in hinge area when door is removed. Hinge can snap closed and pinch hands.
- Do not scratch or chip glass, or twist door. Glass may break suddenly.
- Replace door glass if damaged.

1. Open door fully to remove screws if necessary.
  - Some oven doors are attached with a screw on each side of lower oven door. If no screws are apparent, go to next step.
2. Close door to first stop position.
3. Grasp door firmly on each side and lift upward until door is off hinges.
  - Only push hinges closed once oven door is removed if necessary. Use both hands when closing hinge. Hinge snaps closed.



4. Reverse steps 2 and 3 to install door.

## Replacing Oven Light

### WARNING

To avoid risk of burns or electrical shock, disconnect electrical supply to oven before changing light bulb.

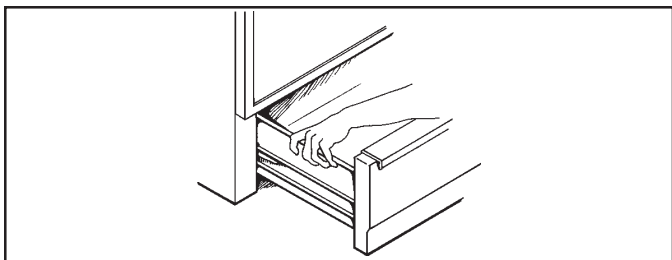
- Before replacing light bulb make sure bulb is cool.
- Wear protective gloves.
- Do not operate oven without bulb and cover in place.

1. Disconnect electrical supply.
2. Remove oven door if desired.
3. Unscrew light bulb cover and then light bulb counterclockwise.
4. Replace light bulb with 120 volt, 40 watt appliance bulb.
  - Do not overtighten bulb or it may be difficult to remove later.
5. Replace light bulb cover and oven door before use.

# General Information

## Removing Storage Drawer

1. Slide drawer out until it stops.
2. Grasp drawer sides near back of drawer.



3. Lift up and out.
  - Reverse to reinstall.

## Adjusting Oven Temperature

Oven temperature has been factory calibrated and tested.

If oven consistently over or under cooks food, adjust thermostat. Oven thermostat can be increased or decreased 35°F. To avoid over adjusting oven, move temperature 5°F each time.

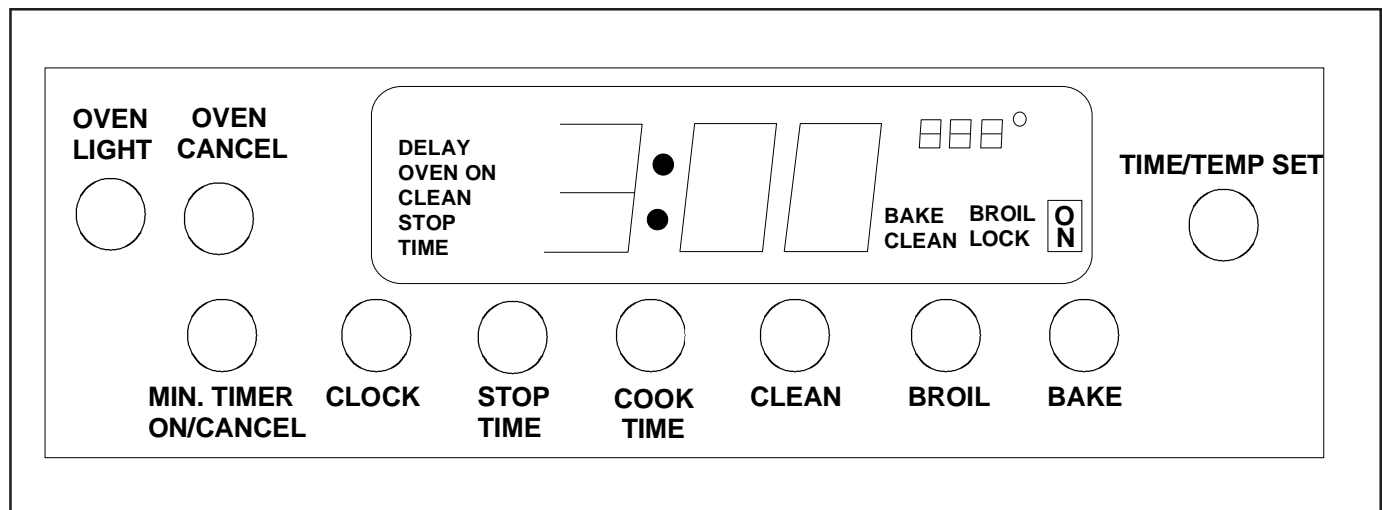
1. Push BAKE pad.
2. Turn TIME/TEMP SET knob until an oven temperature greater than 500°F shows in display.
3. Immediately push and hold, approximately 5 seconds, BAKE button until "00" appears in display.
4. Turn TIME/TEMP SET knob to adjust oven temperature.
  - To increase oven temperature (for a hotter oven), turn TIME/TEMP SET knob clockwise until a positive number appears in display.
  - To decrease oven temperature (for a cooler oven), turn TIME/TEMP SET knob counterclockwise until a negative number appears in display.
5. Press MIN. TIMER ON/CANCEL pad to save adjustment.

## Cleaning

Part	Materials to Use	General Directions
Grates for two burner module and grill	Soap and Water	Cool before cleaning. For heavy soil soak in warm soapy water. Never use strong abrasives, gritty cleaners or steel wool. The grates may be placed in the dishwasher.
Hard to Clean Burner Caps and Grates	½ Cup Ammonia	Place burner caps and grates in plastic bag with ½ cup ammonia. Do not pour ammonia into bag. Ammonia must remain in cup. To avoid rust, do not soak grates in ammonia. Close bag tightly and leave grate and caps overnight. Before bag is opened turn face away to avoid breathing or eye contact with fumes. Remove burner caps and grates from bag and rinse. Clean according to instructions above.
Control Knobs	Mild Soap and Water	Pull off knobs. Wash gently but do not soak. Dry and return controls to oven, making sure to match flat area on the knob to the flat area on shaft.
Grill Burner Pan and Two Burner Module	Soap and Water	Cool before cleaning. Wash the surface with a dampened cloth and soapy water. Never immerse the grill burner pan or two burner module in water. For extra dried on soil use a plastic or nylon brush. Never use strong abrasives or gritty cleaners. The burners should be dried completely. Make sure the holes on the side of the burners are not clogged. Holes can be cleaned with a pipe cleaner or paper clip.
Outside Finish and Control Panel	Soap and Water	Wash all glass with cloth dampened in soapy water. Rinse and polish with a dry cloth. If knobs are removed, do not allow water to run down inside surface while cleaning.
Griddle and Grease Pan	Soap and Water	Wash with nylon brush, or plastic scrub pad and a dampened cloth in soapy water. Option: The griddle may also be cleaned in a dishwasher.
Fan Cover and Filter	Soap and Water	The fan must be off before attempting to remove the cover or filter. Wash the cover and filter in warm soapy water. For grease or dried on soil, soak before cleaning. Rinse and dry. Option: The cover and the filter may be washed in the dishwasher always replace the cover and filter before attempting to operate the range.

# Operating Instructions

## Electronic Oven Control



### Electronic Oven Control Pads

#### OVEN CANCEL

- Cancels any cooking or cleaning function except timer.

#### MIN. TIMER ON/CANCEL

- Use to time any kitchen function or cancel timer.
- Does not control bake, broil, or clean function.

#### CLOCK

- Use to set time of day.

#### STOP TIME

- Use to set delayed bake and self-clean.

#### Cook Time

- Use to set timed baking.

#### CLEAN

- Use to select self-clean cycle.

#### BROIL

- Use to select broil.

#### BAKE

- Use to select bake.

#### OVEN LIGHT

- Used to turn oven light on and off. Light automatically turns on when oven door is opened.

#### TIME/TEMP SET

- Used to select temperature or time.

### Oven Signals

#### Preheat Signal

After setting oven to bake and selecting a temperature, oven preheats. When oven reaches set temperature, 1 second signal sounds.

#### End of Cycle Signal

When a timed cooking or cleaning cycle is complete, three long signals sound. End of cycle signal continues to sound until OVEN CANCEL pad is pushed.

If minute timer end of cycle signal is sounding push MIN. TIMER ON/CANCEL pad.

#### 12 Hour Automatic Cancel

This is a safety feature that prevents oven from continuing to operate if it has been left on for over 12 hours. If a cooking function continues longer than 12 hours without any options on oven control being touched, this feature turns oven off. Any time an option is touched, 12 hour automatic cancel is reset.

# Operating Instructions

## Quick Reference Instructions

Read *Important Safety Information* before using *Quick Reference Instructions*. If there are unanswered questions refer to detailed sections of this manual.

### Setting Clock

1. Push CLOCK pad.
2. Turn TIME/TEMP SET knob until correct time of day is displayed.
3. Press MIN. TIMER ON/CANCEL pad.

### Setting Minute Timer

1. Push MIN. TIMER ON/CANCEL pad.
2. Turn TIME/TEMP SET knob until desired amount of time is displayed. Timer can be set from 5 seconds to 9 hours and 55 minutes.

### Canceling Minute Timer

- Push and hold MIN. TIMER ON/CANCEL pad for 3 seconds.
  - When canceling minute timer do not press MIN. TIMER ON/CANCEL pad. Pressing OVEN CANCEL pad cancels cooking function.

### Baking or Broiling

1. Push BAKE or BROIL pad.
2. Turn TIME/TEMP SET knob until desired temperature is displayed, HI or Lo for broil.
3. Oven begins baking or broiling within 5 seconds.

### Canceling Bake or Broil

- Press OVEN CANCEL pad.

### Self-Cleaning

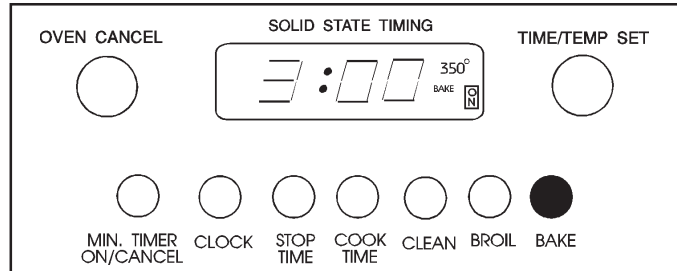
1. Remove oven racks and all utensils from oven and range top. Clean excess spills from oven bottom.
2. Push CLEAN pad.
3. Turn TIME/TEMP SET knob to adjust clean time. Clean can be set from 2 to 4 hours.
4. Lock oven door.
5. Oven begins cleaning within 5 seconds.

### Canceling Self-Cleaning Cycle

1. Push MIN. TIMER ON/CANCEL pad.
2. When oven has cooled to a safe temperature, door can be unlocked.

## Baking

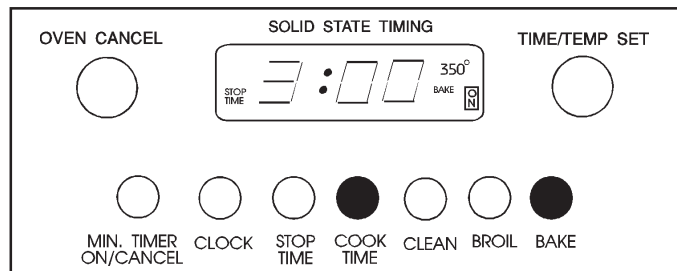
1. Push BAKE pad.
  - Last baking temperature used is displayed.
2. Turn TIME/TEMP SET knob until desired temperature is displayed.



- Temperature can be set from 170° to 550°F. Preheat approximately 10 minutes before placing food inside oven.
  - Temperature display increases in 5°F increments starting at 100° until reaching set temperature. Some minor smoking is normal when using oven for first time.
3. Push OVEN CANCEL pad when finished.
    - Remove food from oven when cooking time has elapsed. Food left in oven may overcook.

## Automatic Baking

1. Place food in oven.
2. Push COOK TIME pad.
3. Turn TIME/TEMP SET knob until amount of time food should cook is displayed. Time can be set up to 11 hours and 55 minutes.
4. Push BAKE pad.
  - Last baking temperature used is displayed.
5. Turn TIME/TEMP SET knob until desired temperature is displayed.



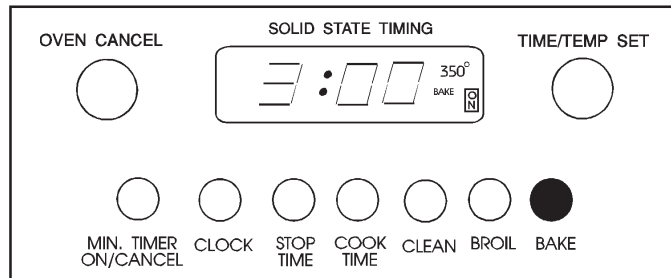
- When oven begins cooking, “STOP”, “TIME”, “BAKE”, and “ON” light in display. Set cooking time counts down in display. When cooking time has elapsed, an end of cycle signal sounds, oven automatically turns off and display returns to time of day. End of cycle signal continues to sound until OVEN CANCEL pad is pressed.
6. Push OVEN CANCEL pad when finished.
    - Remove food from oven when cooking time has elapsed. Food left in oven may overcook.



# Operating Instructions

## Delayed Baking

1. Place food in oven.
2. Push BAKE pad.
  - “BAKE” and “---°” displays.
3. Turn TIME/TEMP SET knob until desired temperature is displayed.

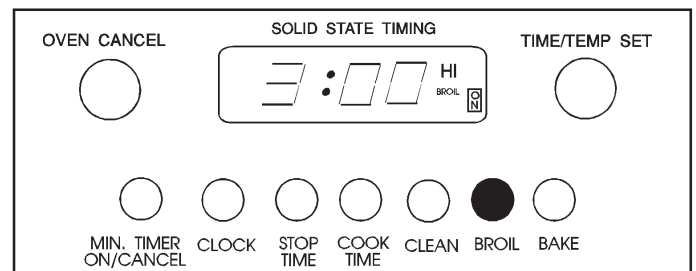


- Temperature can be set from 170° to 550°F.
4. Press in STOP TIME button.
    - Earliest possible stop time will appear in display.
    - To view stop time later, press and hold STOP TIME pad.
  5. Turn TIME/TEMP SET knob until desired stop time is displayed.
    - Stop time can be set up to 11 hours 55 minutes.
  6. Press COOK TIME pad.
    - “TIME”, “Hr.”, “OVEN”, display.
    - To view cook time later, press and hold COOK TIME pad.
  7. Turn TIME/TEMP SET knob to set desired time cooking time.
    - 10 minutes minimum cooking time.
    - Within 5 seconds “DELAY”, “OVEN”, “BAKE”, and “ON” light in display.
    - When cooking time has elapsed, end of cycle signal sounds, oven automatically turns off and display returns to time of day. Oven sounds 3 times, then once every 3 seconds until OVEN CANCEL pad is pressed.

## Broiling

### **WARNING**

- To avoid risk of fire, do not line the broiler grid with foil. Foil may trap grease on top of grid close to burner causing a fire.
  - Never leave oven unattended while broiling. Overcooking may result in a fire.
- Remove excess fat from meat before broiling. Cut edges of meat to prevent curling.
  - Place food on a cool ungreased broiling pan. If pan is hot, food sticks.
  - All food should be turned at least one time. Begin broiling with skin side down.
  - Season meat after it has browned.
  - Broiling does not require preheating.
  - Begin cooking using suggested rack levels in *Broiling Guide* section to test broiler results. If food is not browned enough, cook on a higher rack position. If food is over cooked, use a lower rack position.
1. Center food on broiling grid with grid placed in the broiler pan, and place in oven.
    - Oven door should be completely closed.
  2. Push BROIL pad.
  3. Turn TIME/TEMP SET knob to set broiler to Lo or HI.
    - HI = 550°F. Lo = 450°F.
    - Oven begins to broil in approximately 30 seconds. “ON, BROIL” and “HI” or “LO” setting light in display.



4. Push OVEN CANCEL pad when finished.

# Operating Instructions

## Self-Cleaning

### CAUTION

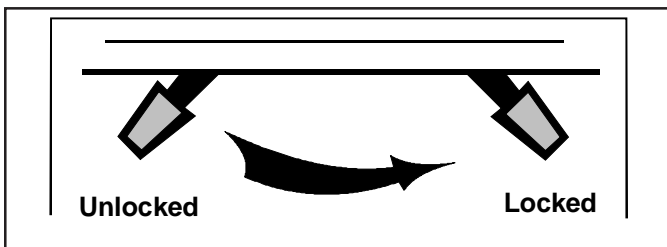
- To avoid risk of personal injury, do not touch oven vents or areas around vents during self-cleaning. These areas can become hot enough to cause burns.
- To avoid risk of damage to automatic locking system, do not try to force oven door latch open.

- A small amount of smoke is normal when cleaning. Excessive smoke may indicate there is a faulty gasket or too much food residue has been left in oven.
  - Oven should be cleaned before it gets too dirty. Wipe up large spills before self-cleaning.
  - Do not use cleaning cycle if oven light cover is not properly in place.
1. Prepare oven for self-cleaning.

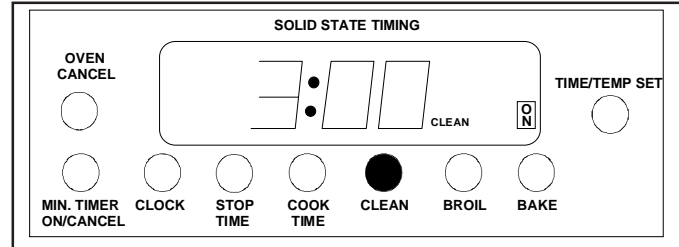
### WARNING

To avoid risk of fire, clean excess spills from oven interior.

- Remove oven racks and all cooking utensils from oven.
  - Clean excess spills from oven interior.
  - Remove items from range top and backguard. These areas can become hot during self-cleaning cycle.
2. Push lever located above oven door to right to lock oven door.



3. Push CLEAN pad.
4. 3:00 hours of cleaning time is displayed.
  - Oven begins to clean in approximately 30 seconds. "CLEAN, TIME" and "ON" lights in display. When oven reaches clean temperatures, door cannot be opened and "LOCK" lights in display.



5. Push OVEN CANCEL pad when finished.
  - When oven has cooled to a safe temperature, door can be unlocked and opened.

## Interrupt Self-Clean Cycle

1. Push OVEN CANCEL pad.
2. When oven has cooled to a safe temperature, unlock and open oven door.

**NOTE:** Do not force self-clean lock lever. Damage could be done to self-clean mechanism.

# Operating Instructions

## Delayed Self-Cleaning

### CAUTION

- To avoid risk of personal injury, do not touch oven vents or areas around vents during self-cleaning. These areas can become hot enough to cause burns.
- To avoid risk of damage to automatic locking system, do not try to force oven door latch open.

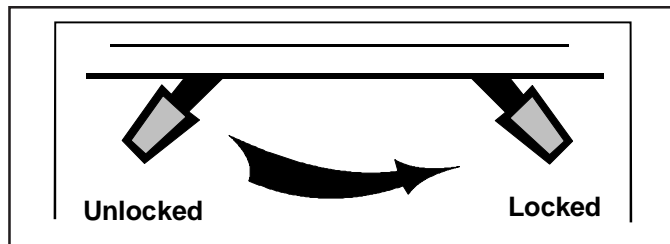
- A small amount of smoke is normal when cleaning. Excessive smoke may indicate there is a faulty gasket or too much food residue has been left in the oven.
- Clean oven before it gets too dirty. Wipe up large spills before self-cleaning.
- Do not use cleaning cycle if oven light cover is not properly in place.

### 1. Prepare oven for self-cleaning.

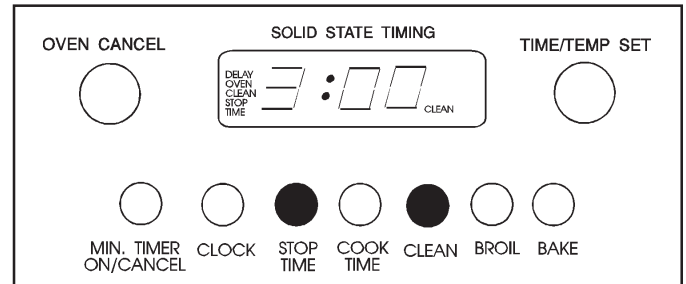
### WARNING

To avoid the risk of fire, clean excess spills from oven interior.

- Remove oven racks and all cooking utensils from oven.
  - Clean excess spill from oven interior.
  - Remove items from range top and backguard. These areas can become hot during self-cleaning cycle.
2. Push lever located above oven door to right to lock oven door.



3. Push CLEAN pad.
4. 3:00 hours cleaning time is displayed.
5. Push STOP TIME pad.
6. Turn TIME/TEMP SET knob until desired stopping time appears in display. Starting time is automatically calculated based on amount of cleaning time and stop time.
  - “DELAY, CLEAN, STOP,” and “TIME” lights in display. When oven reaches clean temperatures, door cannot be opened and “LOCK” lights in display. When cleaning cycle is complete, oven automatically turns off and an end of cycle signal sounds.



7. Push OVEN CANCEL pad when finished.
  - When oven has cooled to a safe temperature, door can be unlocked and opened.

### Interrupt Delayed Self-Clean Cycle

1. Push OVEN CANCEL pad.
2. When oven has cooled to a safe temperature, unlock and open door.
  - Do not force self-clean lock lever. Damage could be done to self-clean mechanism.

# Service Information



## WARNING

To avoid possible electrical shock, personal injury, or death, disconnect power and turn off gas supply before servicing, unless testing requires it.

### Electronic Range Control—ERC

Each major component of the electronic range control system (ERC control, temperature sensor, or relay/power supply board) is serviced as a separate part. However, each component and related wire harness must be tested prior to replacing an individual component.

#### Testing Procedures

"Display Mode" - all segments of the display can be checked by using the following sequence:

**NOTE:** Clock must previously be set to time of day.

1. Press and hold the "clock" button until "time" is displayed and then until "time" turns off.
2. Momentarily press "cancel" button until all display segments are lit. Following the lighting of all of the segments, the display will go through a "sales demonstration" mode, displaying individual functions. The "sales demonstration" mode will show: (1) "Clean", "Time, and "3:00", (2) "Timer" and ":00", (3) "Time" and time of day, (4) All segments displayed, (5) "Bake" and three (3) horizontal segments with the degree symbol "---°", with the time of day, (6) "Broil" and three (3) horizontal segments with the degree symbol "---°" and the time of day, and (7) "Oven", "Time" and ":00".

The program will continue to repeat until the "cancel" button is pressed. The time of day should then be displayed.

### Relay/Power Supply Circuit Board Testing

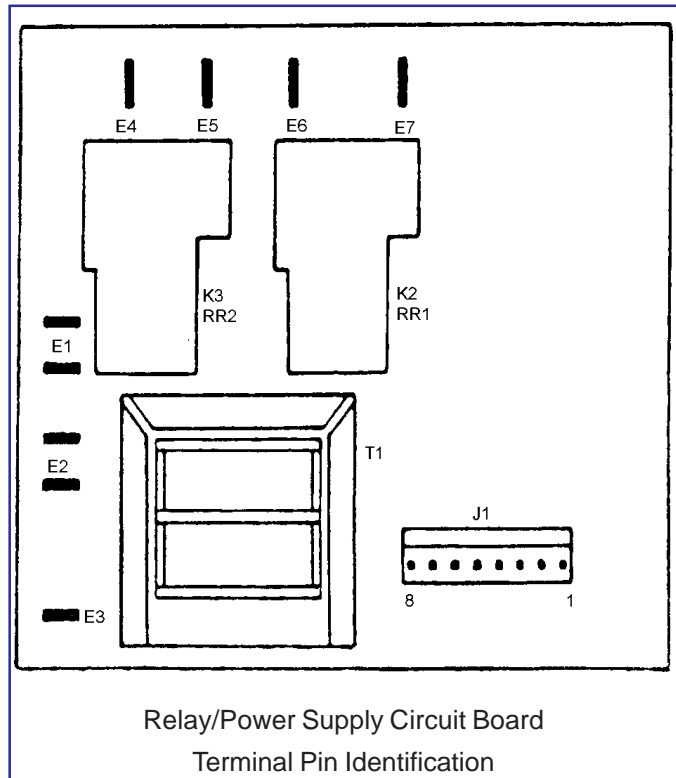
#### Testing with No Voltage Applied

The relay/power supply circuit board transformer windings, relay windings, and relay contacts can be checked as follows:

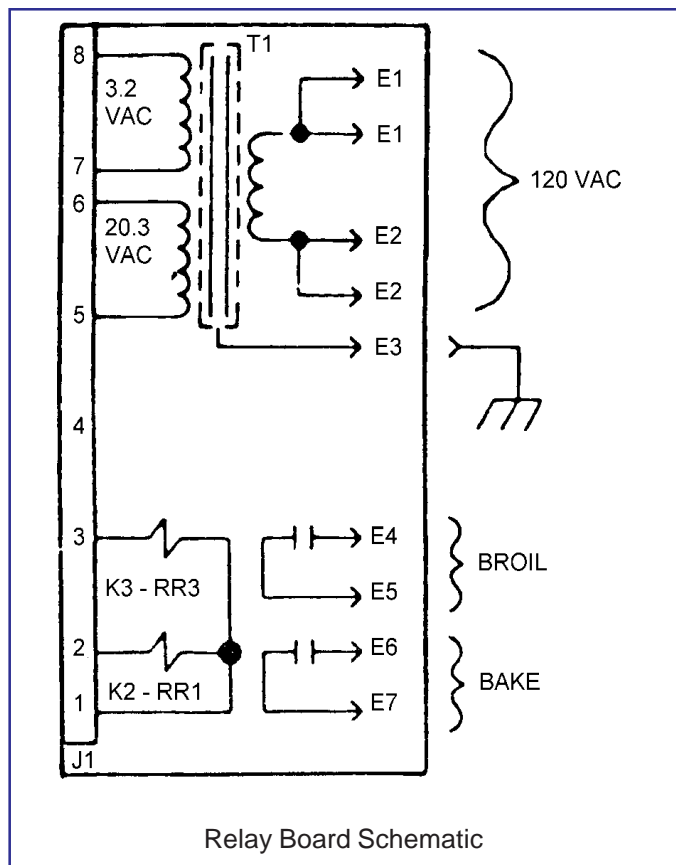
1. Turn off power to the appliance.
2. Disconnect the J1 connector from the circuit board. Also remove the wire leads from the circuit board terminals E1 through E7. Using an ohmmeter check for the following resistance readings in table. See the following diagrams for pin locations and wiring schematic.

Terminals/Pins	Approximate Circuit Testing	OHMS Reading
J1 - 1 to J1 - 2	Bake Relay Coil	560 OHMS
J1 - 1 to J1 - 3	Broil Relay Coil	560 OHMS
J1 - 5 to J1 - 6	Transformer Secondary Winding	5 - 7 OHMS
J1 - 7 to J1 - 8	Transformer Secondary Winding	2 - 4 OHMS
E1 to E2	Transformer Primary Winding	120 - 150 OHMS
E4 - E5	Broil Relay Contact	Infinite OHMS (open)
E6 to E7	Bake Relay Contact	Infinite OHMS (open)

**NOTE:** Check each transformer terminal (J1 - 5, J1 - 6, J1 - 7, J1 - 8, E1 and E2) in turn to ground terminal E3. All readings must be infinite (open).



Relay/Power Supply Circuit Board  
Terminal Pin Identification



Relay Board Schematic

# Service Information

## **WARNING**

To avoid possible electrical shock, personal injury, or death, disconnect power and turn off gas supply before servicing, unless testing requires it.

### Testing with Voltage Applied

The relay/power supply circuit board voltages can be tested by following the procedures below. Caution should always be taken when making live voltage tests to avoid electrical shock and/or damage to range components or test equipment.

1. To verify input supply voltage to transformer primary winding. **Turn off power to the range** and connect AC voltmeter leads to terminals E1–E2. Turn on power to the range. A voltage reading of approximately 103–132 VAC should be indicated. If a low voltage or no reading is indicated, check for loose connections or broken wiring.
2. To verify transformer secondary winding output voltage (filament). **Turn off power to the range** and insert AC voltmeter leads into pins J1–7 and J1–8 and turn power on. A voltage reading of approximately 3.2 VAC should be indicated. If no voltage is indicated, recheck primary input voltage (step 1). If primary input voltage is good, replace relay/power supply board.
3. To verify transformer secondary winding output voltage (used to drive relays). **Turn off power to the range** and insert AC voltmeter leads into pins J1–5 and J1–6 and turn power on. A voltage reading of approximately 20.3 VAC should be indicated. If no voltage is indicated, recheck primary input voltage (step 1). If primary input voltage is good, replace relay/power supply board.
4. To verify bake relay drive voltage supplied to relay/power supply board from ERC. **Turn off power to the range** and insert DC voltmeter leads into pins J1–1 and J1–2 and turn power on. With no bake operation programmed into the ERC, zero VDC should be indicated. Program ERC for a bake operation. When ERC initiates the bake program, a voltage reading of approximately 24 VDC should be indicated. If no voltage is indicated, check for loose connections or broken wiring, and also for drive voltage at ERC J1 connector at pins J1–5 and J1–9.
5. To verify broil drive voltage supplied to the relay/power supply board from ERC. **Turn off power to the range** and insert DC voltmeter leads into pins J1–1 and J1–3 and turn power on. With no broil operation programmed into the ERC, zero VDC should be indicated. Program ERC for broil operation. When ERC initiates the broil program, a voltage reading of approximately 24 VDC should be indicated. If no voltage is indicated, check for loose connections or broken wiring, and also for drive voltage at the ERC J1 connector at pins J1–5 and J1–8.

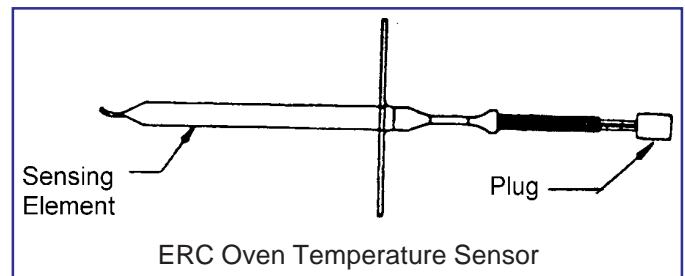
6. To verify bake relay contacts, **turn off power to the range** and attach AC voltmeter leads to relay board terminals E6 and E7 and turn power on. A voltage reading of approximately 120 VAC should be indicated. Program ERC for bake operation. When ERC initiates the bake function, voltage reading should drop to zero (0) VAC. If voltage does not drop to zero (0) VAC, relay is not being energized or relay has failed.
7. To verify broil relay contacts, **turn off power to the range** and attach AC voltmeter leads to relay board terminals E4 and E5 and turn power on. A voltage reading of approximately 120 VAC should be indicated. Program ERC for broil operation. When ERC initiates the broil function, voltage reading should drop to zero (0) VAC. If voltage does not drop to zero (0) VAC, relay is not being energized or relay has failed.

### ERC Oven Temperature Sensor

Oven temperature sensor is mounted in the oven cavity and electrically connected to J2 connector, pins 1 and 3, on the rear of ERC. The sensor resistance changes with temperature changes inside the oven cavity and the ERC controls the oven temperature by reacting to the sensor resistance changes.

Sensor resistance can be checked by removing the sensor interconnect harness plug from the ERC J2 connector and inserting ohmmeter leads into the harness connector plug. A resistance reading of  $1091 \pm 5.5$  ohms should be indicated at ambient room temperature (75°F). If a higher resistance is indicated, disconnect interconnect harness from sensor and recheck sensor resistance to assure the problem is in the sensor and not in the interconnect harness or due to a bad connection. The following table shows the corresponding resistance for different oven temperatures.

Sensing Element Temperature	Sensor Resistance
75°F	$1091 \pm 5.5$ OHMS
350°F	$1654 \pm 11$ OHMS
535°F	$2018 \pm 16$ OHMS
875°F	$2652 \pm 24$ OHMS



# Service Information

## **WARNING**

To avoid possible electrical shock, personal injury, or death, disconnect power and turn off gas supply before servicing, unless testing requires it.

### ERC Voltage Tests

1. Turn off power to the range. Partially remove ERC from control panel.
2. To verify input voltage for vacuum fluorescent display, insert AC voltmeter leads into pins J1-1 and J1-2, and turn power on. A voltage reading of approximately 3.2 VAC should be indicated. If no voltage is indicated, check for loose connections, open wire(s), and relay/power supply circuit board output voltage at pins J1-7 and J1-8 on relay board.
3. To verify input voltage that the ERC uses to drive bake/broil relays, insert AC voltmeter leads into pins J1-3 and J1-4. A voltage reading of approximately 20.3 VAC should be indicated. If no voltage or a low voltage reading is indicated, check for loose connections, open wire(s), and relay/power supply circuit board output voltage at pins J1-5 and J1-6 on relay board.
4. To verify bake relay drive voltage, insert DC voltmeter leads into pins J1-5 and J1-9, and program ERC for a bake operation.

When ERC initiates the bake operation, a voltage reading of approximately 24 VDC should be indicated. If no voltage is indicated, check for input supply voltage at pins J1-3 and J1-4 (step 3).

To verify broil relay drive voltage, insert DC voltmeter leads into pins J1-5 and J1-8, and program ERC for a broil operation. When ERC initiates broil operation, a voltage reading of approximately 24 VDC should be indicated. If no voltage is indicated, check for input supply voltage at pins J1-3 and J1-4 (step 3).

### ERC Failure Codes and Warnings

Electronic range control is capable of detecting certain failures within the ERC, oven temperature sensor, and self-clean latch switch. Failure codes and warnings which may appear on the display include F1 through F8, "door" or "lock". A brief description of the failure codes or warnings is listed below.

- F1 - Indicates a failed component in the ERC.
- F2 - Sensor resistance too high. Check sensor resistance, wire harness and connections.
- F3 - Open wire lead in sensor harness, failed harness/sensor connection, or sensor resistance too high.
- F4 - Sensor resistance too low (below 500 OHMS). Check for a short in sensor wire harness and check sensor resistance.
- F5 - Indicates a failed component in the ERC.
- F6 - Indicates a failed component in the ERC or due to fluctuations in 60 Hz power source.
- F7 - Indicates a shorted or sticking contact in one or more of the function control switches. Verify the function buttons are not binding on the control panel—reposition the ERC. Verify function buttons spring outward after being depressed.
- F8 - Indicates a failed component in the ERC.

**"Lock" Light On**—If "lock" appears in the display when oven is not set in clean mode, oven sensor resistance is too high. Check sensor resistance, wire harness, and connections.

**"Door" Appears in Display**—In bake/broil mode, this is an indication of a failed latch switch or shorted wire lead from the ERC pin J1-10 to ground, or door latch is set to clean or locked position.

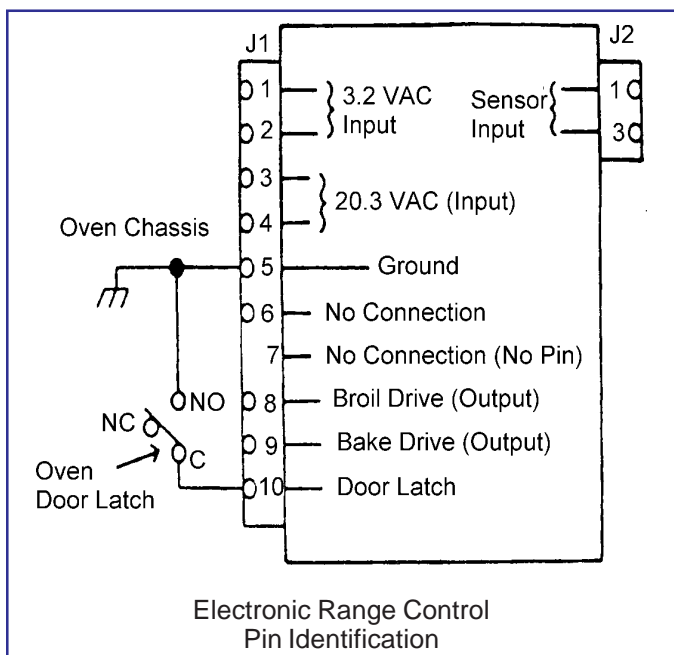
**"Door" appears in display**—In clean mode, this is an indication of a failed latch switch or an open wire lead from the ERC pin J1-10 to ground, or door latch has not been closed as required to initiate clean cycle.

### Touch Tone Deletion

With touch tone activated, a "beep" is audible whenever any one of 8 push pads are depressed on ERC.

To delete the touch tone "beep" depress and hold the **CANCEL** push pad for five (5) seconds.

To restore the touch tone "beep" depress and hold the **CANCEL** push pad for five (5) seconds.



# Service Information



## WARNING

To avoid possible electrical shock, personal injury, or death, disconnect power and turn off gas supply before servicing, unless testing requires it.

### ERC Temperature Calibration

The ERC incorporates  $\pm 35^{\circ}\text{F}$  calibration capabilities. Follow the procedures below to calibrate the ERC.

1. Press and release the "BAKE TEMP" button.
2. Rotate "TIME/TEMP SET" knob clockwise until a temperature between  $500^{\circ}$ – $550^{\circ}$  is displayed. Quickly, before ERC initiates the bake function, press and hold "BAKE TEMP" button. After approximately four seconds, display will show "-35" or offset temperature that was previously programmed into the ERC.
3. Rotate "TIME/TEMP SET" knob to show the desired offset temperature in the display up to  $\pm 35^{\circ}\text{F}$  in five degree increments: ("+" to increase oven temperature, "-" to decrease oven temperature).
4. Press "CLOCK" function button to enter offset temperature into the ERC. Calibration adjustment will remain programmed into ERC even if power is removed from the ERC or range.

**NOTE:** Self-clean temperatures are not affected by this calibration.

If oven temperature testing reveals that a calibration in excess of  $\pm 35^{\circ}\text{F}$  is required, the oven temperature sensor, sensor wire harness, and wire harness/sensor connections must be checked before replacing the ERC. A resistive connection within the sensor harness will affect oven temperature calibration.

### Oven Temperature Test Procedure

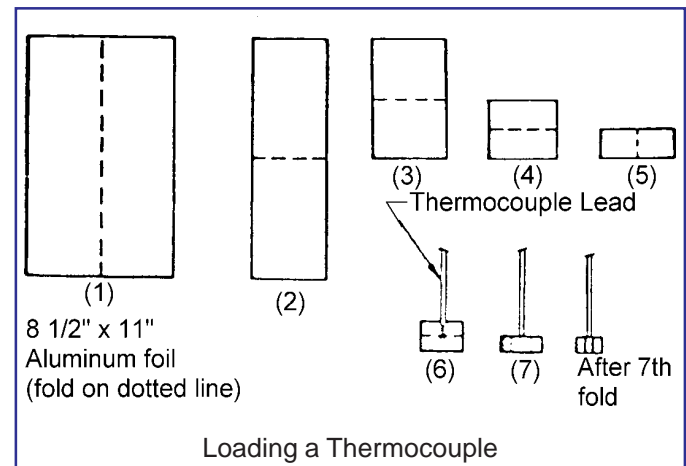
An accurate thermocouple type thermometer, with loaded thermocouple, should be used with the thermocouple attached to an oven rack in the center of the oven.

Allow the oven to operate at  $350^{\circ}$  for 25 to 30 minutes to stabilize. Then record the upper and lower cycling peaks (off and on peak) for about three (3) cycles. The temperature between the upper and lower cycling peaks (off and on peak) is the average temperature.

**NOTE:** If the average oven temperature is within  $\pm 25^{\circ}$  of the dial setting adjustment is not necessary. Cooking recipes are written to take into consideration that oven temperatures can vary by  $\pm 25^{\circ}$ , therefore, an exact cooking time is avoided in recipe instructions.

### Thermocouple Loading

An 8 1/2 x 11 inch piece of aluminum foil should be folded five (5) times, doubling the thickness with each fold. After the fifth fold, place the thermocouple in the center of the aluminum piece as shown below and fold once more. Finally, fold the sides so the foil clings to the thermocouple. The loaded thermocouple will then provide temperature readings on the thermometer that more closely resembles the mean or average temperature of the oven as it cycles on and off above and below the temperature setting.



# Service Information



## WARNING

To avoid possible electrical shock, personal injury, or death, disconnect power and turn off gas supply before servicing, unless testing requires it.

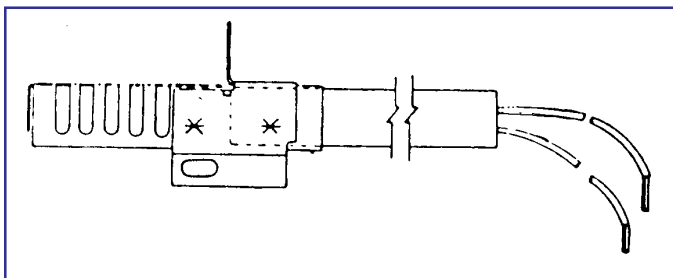
### Bake Burner Ignitor

Bake burner ignitor is mounted in a bracket and shield assembly parallel to the bake burner. The ignitor operates in conjunction with the ERC or electronic thermostat, selector switch, clock/timer in timed bake and clean operations, bake portion of the dual gas valve, and the normally closed hi-limit switch during bake, timed bake, and self-clean operations.

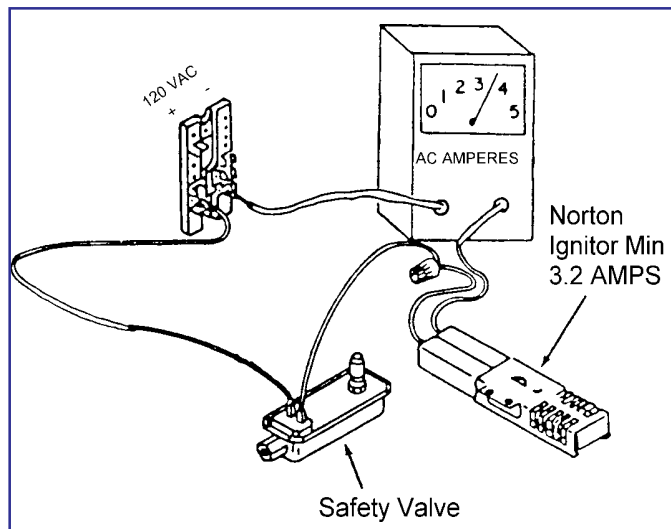
During a bake operation, current flows through the ERC or electronic thermostat, selector switch, bake ignitor, bake portion of the the gas valve, and the hi-limit switch to neutral. As the ignitor starts heating up and glowing its internal resistance decreases allowing more current to flow through the bake circuit. When the circuit current reaches approximately 3.2–3.6 amps, the heated bimetal arm in the gas valve flexes, opening the valve and allowing gas to flow to the burner where it is ignited by the glowing ignitor. The ignitor glows anytime the bake burner is in operation and will cycle on and off with the thermostat or ERC.

During a self-clean operation the bake burner and ignitor are on when oven temperature is above approximately 650°F.

The ignitor can be checked for continuity by disconnecting ignitor wire leads and attaching an ohmmeter set to the R X 10 scale. A resistance reading of several hundred ohms may be indicated and this reading may vary with each ignitor tested. The main purpose of this test is to see if the ignitor is open internally. If ignitor is open, it must be replaced.



A more accurate test can be made to measure the ignitor current while the oven is in operation. An ammeter should be inserted in series with one lead of the ignitor, or an amp-probe attached to the lead to check the amount of current flowing through the bake ignitor circuit. When the oven is turned on and ignitor is glowing red, a current reading of 3.2–3.6 amps should be indicated. The ignitor can also be removed from the range and bench tested using the current test method with an AC jumper or test cord connected to the ignitor leads.



### Broil Burner Ignitor

Broil burner ignitor is mounted in a bracket and shield assembly which is screw mounted to the broil burner reflector parallel to the broil burner.

The broil burner ignitor operates only when the oven controls are set for a broil operation or during a self-cleaning operation for the first 30 minutes.

Broil burner ignitor operating characteristics and testing procedures are the same as for the bake burner ignitor. However, the bake and broil ignitors are not interchangeable due to physical size and mounting differences.



# Service Information

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### Bake/Broil Dual Gas Valve

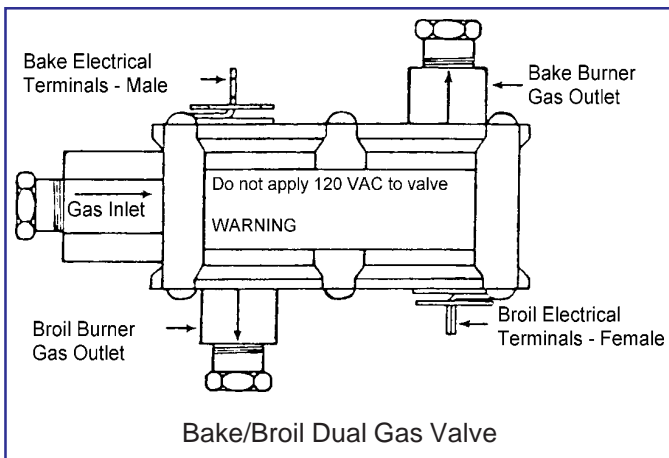
Bake/broil low voltage dual gas valve, mounted to the oven top insulation retainer at the left rear upper section of the range, operates in conjunction with bake/broil ignitors, ERC, electronic thermostat and selector switch during all modes of oven operation to supply gas flow to the bake/broil burners.

Each section of the valve (bake/broil) contains a bimetallic arm attached to a valve seat and wound with a small electric heater coil. When an AC current of approximately 3.2–3.6 amperes flows through the bake/broil circuit, bi-metallic arm is heated by the heater coil causing it to flex or bend which opens the valve seat allowing gas to flow to burner where it is ignited by the glowing ignitor.

A continuity test can be made at each bi-metallic arm heater coil by using an ohmmeter set to low ohms range. Access to the valve for testing or replacement can be made by removing maintop assembly and burner box. To check the broil heater coil, disconnect wire leads (brown, white) from the valve female terminals and connect ohmmeter to the female terminals. A resistance reading of approximately two ohms or continuity should be indicated. To check the bake heater coil, disconnect wire leads (violet, white) from the valve male terminals and connect ohmmeter or tester to the male terminals. Again, resistance reading of approximately two ohms or continuity should be indicated. If either heater coil is open (infinite ohms), the complete valve must be replaced.

**NOTE:** Do not apply 120 VAC to valve terminals for testing purposes, as permanent damage to valve will occur.

If replacement of valve is required, verify all inlet/outlet connections for gas leaks after reassembly.



### Hi-Limit Switch Oven

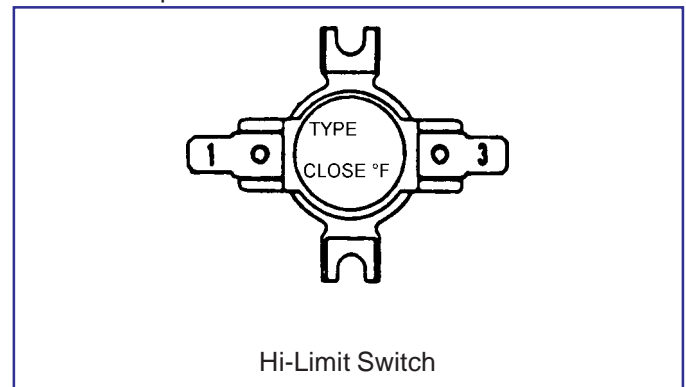
Normally closed oven hi-limit switch, is located on front of plenum below burner box.

The switch monitors external temperature and is electrically connected in series with the bake/broil dual gas valve and neutral side of the power line. If the temperature in the area of the plenum exceeds 275° F during an oven operation, hi-limit switch contact opens, interrupting the bake/broil electrical circuit, which temporarily shuts off the oven.

When temperature cools to approximately 245°F, the switch contacts reset the electrical bake/broil circuit and oven operation resumes.

The hi-limit switch can be checked for continuity by using an ohmmeter set to the low ohms range and following the test procedures below.

1. Turn off power to the range.
2. Remove burner/grill cartridges, vent cover, and filter.
3. Remove dilution flue cover trim and maintop assembly.
4. Remove burner box mounting screws, control panel top mounting screws, and plug block and orifice plate mounting bracket screws. Partially remove burner box and hi-limit switch is mounted to the plenum.
5. Disconnect either white lead from bake/broil dual gas valve and attach one ohmmeter lead to the white wire terminal.
6. Disconnect the 15 pin plug block connector located at left side of range and insert other ohmmeter lead into the male plug block at Pin 11 (dual white wire). Zero ohms or continuity should be indicated. If an open condition is indicated, check for broken/loose wiring and/or replace hi-limit.



# Service Information



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### Door Latch Switch

Door latch switch provides a completed circuit to the clean interlock circuit on the ERC. When the door latch is moved to the far right or lock position the COM to NO contact close.

If the door is not latched, or switch is stuck "open" when door is latched and "clean" is selected, then "door" will appear in display and clean cycle will not proceed.

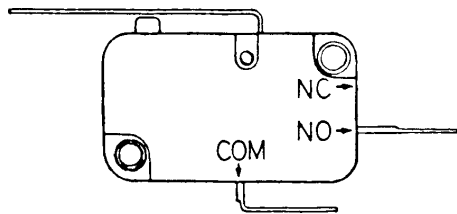
If the door is latched, or switch is stuck "closed" and a "bake or broil" cycle is programmed, then "door" will appear in display and "bake or broil" cycle will not operate.

The switch contacts can be checked for continuity by using an ohmmeter set to the low ohms scale and the following procedures.

1. Turn off power to the range.
2. Partially remove burner box to gain access to switch, mounted on the door latch mechanism.
3. Disconnect switch wire leads and connect tester to switch terminals COM to NO.

When the door latch lever is set to the far left or unlock position, no continuity should be indicated.

Move latch lever to the far right or locked position and continuity should be indicated. Replace switch if it does not perform as per these instructions.



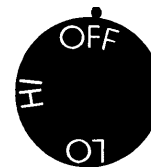
Lower Latch Switch

### Fan Switch

Fan switch is a three position switch that controls the fan motor in low, high, and automatic low speed operations.

The switch contacts can be checked for continuity by using an ohmmeter set to low ohms scale. Follow the test procedures below:

1. Turn off power to the range.
2. Remove cooking modules, maintop assembly and partially remove control panel to gain access to fan switch contacts.
3. Disconnect switch wire leads.



Fan Knob

4. Set fan switch to *OFF* position by turning fan switch knob fully counterclockwise and check the following contacts.

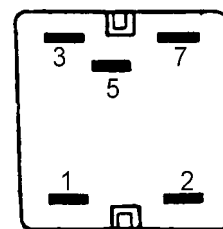
1 - 5 ..... CLOSED  
 1 - 3 ..... OPEN  
 2 - 7 ..... OPEN

5. Set fan switch to *HI* speed position by turning knob 90° clockwise from off position and check the following contacts:

1 - 5 ..... OPEN  
 1 - 3 ..... OPEN  
 2 - 7 ..... CLOSED

6. Set fan switch to *LO* speed position by turning knob 90° clockwise from *HI* speed position and check the following contacts:

1 - 5 ..... OPEN  
 1 - 3 ..... CLOSED  
 2 - 7 ..... OPEN



Fan Switch

# Service Information

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### Blower Motor

Blower motor is a 115 VAC, 60 Hz, thermally protected, permanent split capacitor motor with a low and high speed winding. The motor windings can be checked for continuity by using an ohmmeter set to R X 1 scale and the following procedures.

1. Turn off power to the range.
2. Remove storage drawer assembly.
3. Disconnect three pin socket on right side of blower motor.
4. To check the low speed winding, insert ohmmeter leads into the female terminals on black and white wires inside the socket. A resistance reading of approximately 20 ohms should be indicated. An infinite or zero ohms reading indicates the winding has failed and motor should be replaced.
5. To check the high speed winding, insert ohmmeter leads into the female terminals on red and white wires inside the socket. A resistance reading of approximately 5–10 ohms should be indicated. An infinite ohms or zero ohms reading indicates winding has failed and motor should be replaced.

**NOTE:** If windings check okay and motor *hums*, when turned to low or high, then check capacitor as follows.

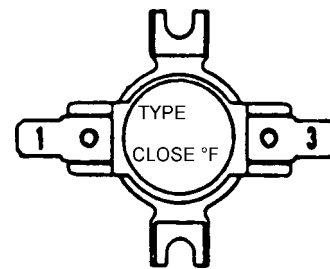
6. Remove screw from strap securing capacitor to right side of blower scroll. Remove metal cover from top of capacitor.
7. Remove wires from capacitor. Set ohmmeter to high ohms scale and place leads on capacitor terminals then reverse leads. Meter should indicate change. Check each terminal to ground which should show open circuit. Replace capacitor if tests dictate it has failed. Capacitor is rated at 4 MFD, 370 VAC, 60 Hz.

### Thermal Fan Switch

Normally open thermal fan switch is also mounted on the top plenum, and is wired in series with contact number five on the fan selector switch.

When operating in a self-clean cycle and top plenum area temperature reaches approximately 100°F, the thermal fan switch contacts close completing an electrical circuit through the fan selector switch contacts 1–5 to the low speed winding of the fan motor. This usually occurs approximately 10–20 minutes into the clean cycle. Fan motor will operate at low speed during the clean cycle and will continue to operate after completion of the clean cycle until door latch is moved to the left or unlocked position, or until top plenum area temperature drops below approximately 90°F. Follow the procedures below to test the thermal fan switch.

1. Turn off power to the range.
2. Remove maintop assembly and partially remove burner box to gain access to switch.
3. Disconnect thermal fan switch wire leads.
4. Connect an ohmmeter to switch terminals. No continuity (open contacts) should be indicated when top plenum area temperature is below approximately 90°F and continuity (closed contacts) should be indicated when top plenum area temperature exceeds approximately 100°F.



Thermal Fan Switch

### Blower Relay

Blower relay is a single pole single throw (SPST) normally open relay that controls the downdraft blower when grill is in operation.

The relay coil is connected in series with the right front and right rear top burner blower switch which is mounted on the right front and right rear surface valves, and right side bucket switch, mounted on the burner box, which is activated when grill pan is inserted into cooktop. The relay contacts 3–4 are connected in series with the "HOT" side of the incoming power supply and low speed winding of the downdraft blower motor through the fan selector switch contacts 1–5. When the grill pan is inserted into the cooktop, fan selector switch is turned "OFF", and right front or right rear surface valve is turned on, relay coil is energized which closes the blower relay contact 3–4 supplying 120 VAC to the blower motor, causing the fan to automatically run at low speed. The blower relay can be tested using an ohmmeter set to the R X 1 scale and following the test procedures below.

1. Turn off power to the range.
2. Remove storage drawer.
3. Remove cover box screws located at the left front lower corner of the range. The blower relay is mounted to the cover box by screws and locknuts.

**NOTE:** There are two relays in the cover box. The blower relay is identified by red, white, yellow and gray wires. The fan cutout relay is identified by the violet, white, black and gray wires.

# Service Information

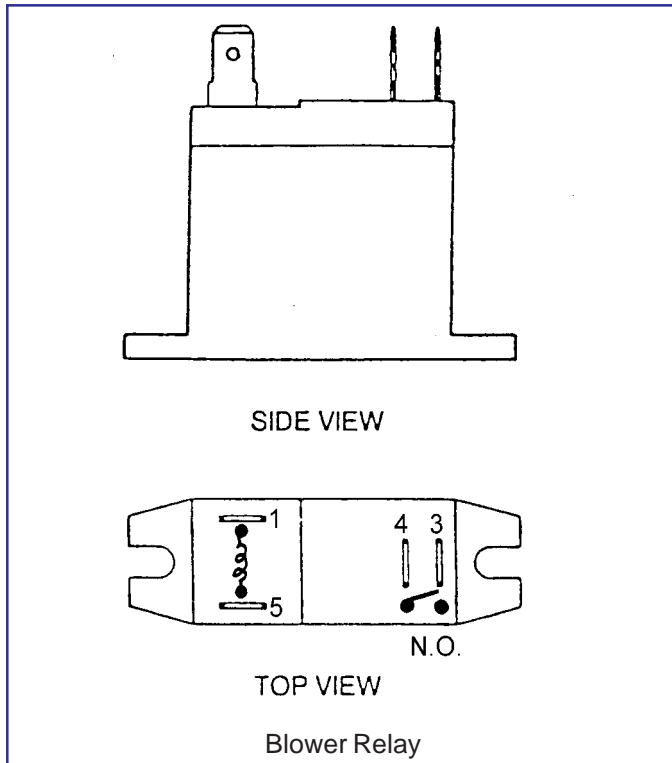


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4. Remove blower relay wire leads.
5. To check the relay contacts, connect an ohmmeter R X 1 scale to relay terminals 3 and 4. No continuity (open contacts) should be indicated. If continuity is indicated, replace relay.
6. To check the relay coil, connect an ohmmeter R X 1 scale to relay terminals 1 and 5. A resistance reading of approximately 7.3K ohms should be indicated. If a zero or infinite ohms reading is indicated, replace relay.

**NOTE:** Relay can also be removed and bench tested by attaching a 120 VAC jumper cord to terminals 1 and 5. An audible click should be heard and continuity indicated through contacts 3 and 4 when 120 VAC is applied to relay terminals 1 and 5.



## Fan Cutout Relay

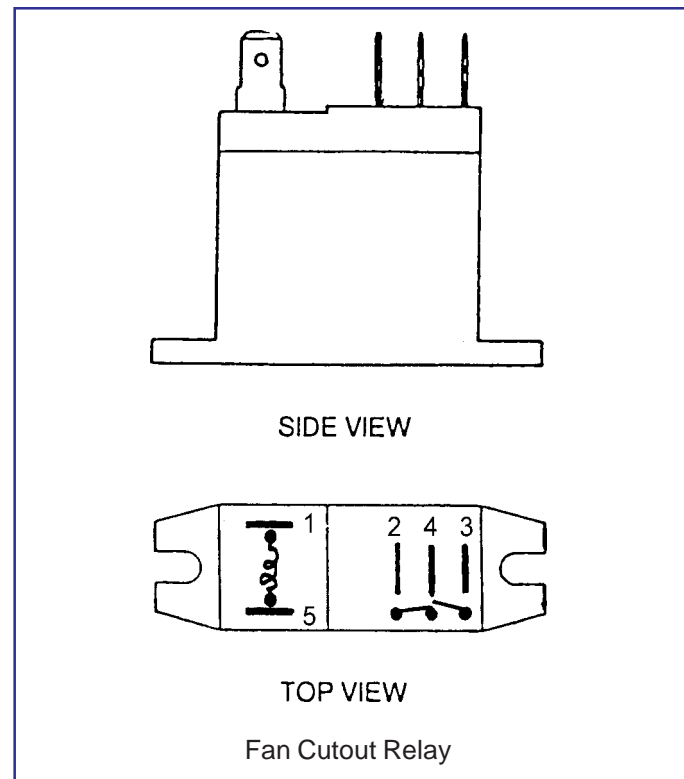
The fan cutout relay is a single pole double throw (SPDT) relay, which through its normally closed contacts, provide a completed 120 VAC circuit path to the blower motor. The coil contacts on the fan cutout relay are connected in series with the four top burner spark switches. Whenever any top burner/grill is turned to "LITE" the fan cutout relay is energized opening the switch contacts and the blower motor turns off. This action is necessary to eliminate the possibility of blower air movement interfering with ignition of top burner gas.

After top burner gas ignites and customer turns top burner from "LITE" to any other setting the fan cutout coil is de-energized allowing completed 120 VAC circuit path to blower motor.

The fan cutout relay can be tested using an ohmmeter set to the R X 1 scale and using the following test procedure.

1. Turn off power to the range.
2. Remove storage drawer.
3. Remove cover box screws located at the left front corner of the range. The fan cutout relay is mounted to the cover box by screws and locknuts. The fan cutout relay is identified by violet, white, black, and gray wires attached to it.
4. Remove fan cutout relay wire leads.
5. Connect ohmmeter R X 1 scale to relay terminals 2 and 4. Continuity (closed contacts) should be indicated. If continuity is not indicated, replace relay.
6. Connect the ohmmeter R X 1 scale to relay terminals 1 and 5. A resistance reading of approximately 7.3K ohms should be indicated. If a zero or infinite ohms reading is indicated, replace relay.

**NOTE:** Relay can also be removed and bench tested by attaching a 120 VAC jumper cord to terminals 1 and 5. An audible click should be heard and open circuit should be indicated through contacts 2 and 4 when 120 VAC is applied to relay coil terminals 1 and 5.



# Service Information

## **WARNING**

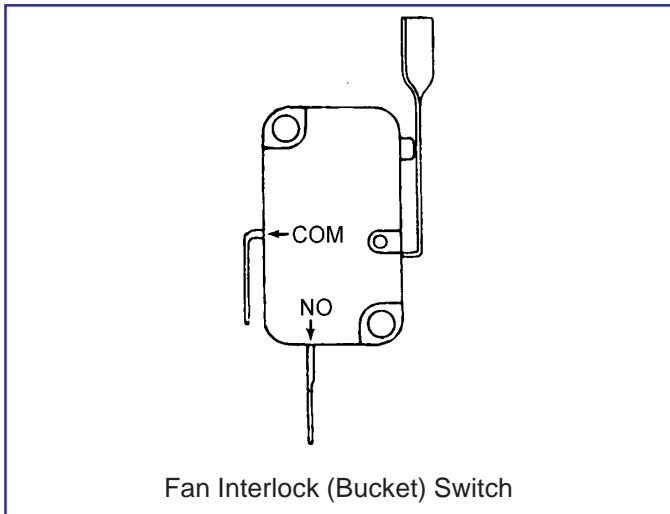
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### Fan Interlock (Bucket) Switch

The fan interlock or bucket switch is a single pole single throw (SPST) switch wired in series with the blower switches mounted on the right front and rear surface valves.

Switch contacts close completing an electrical circuit to blower relay coil when grill module pan is inserted into maintop (right side only). Blower motor automatically runs on low speed when the grill cartridge is in place and either the right front or right rear surface valve is turned on. Follow these procedures to test the switch.

1. Turn off power to the range.
2. Remove maintop assembly to allow access to switch. The switch is mounted to the burner box adjacent to the right plug block and orifice mounting plate.
3. Disconnect switch wire leads and connect ohmmeter to switch terminals. No continuity or open contacts should be indicated.
4. Manually depress switch actuator arm. Continuity or closed contacts should be indicated. If the switch fails either test, it must be replaced.



Fan Interlock (Bucket) Switch

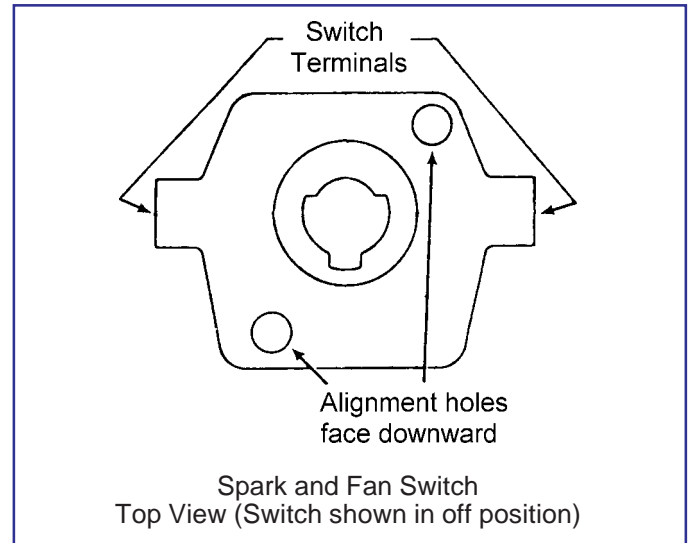
### Spark and Fan Switches—Right Burners

The combination spark and fan switches are mounted on the right front and right rear surface burner/grill valves. The spark switch (bottom switch) activates the electronic spark module when valve shaft/knob is turned to "LITE" position to ignite the right front or right rear burner, when the two burner surface cartridge is installed in cooktop, or to ignite the right or left grill burner when grill cartridge is installed in cooktop.

The fan switch (top switch) activates the blower relay coil through the right side bucket switch. Automatically operates the downdraft blower at low speed when grill pan is installed in cooktop (right side only) and either grill burner surface valve is turned on.

Follow the next procedure to test the switch.

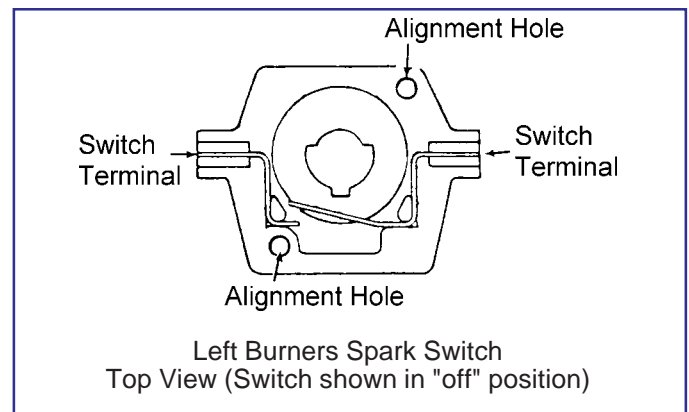
1. Turn off power to the range.
2. Remove maintop assembly and partially remove control panel to gain access to switch.
3. To test spark switch (bottom switch), disconnect switch wire leads and connect ohmmeter to switch terminals. When the surface valve shaft/knob is turned to "LITE" position, continuity should be indicated. Turn surface valve shaft/knob counter clockwise from "OFF" position. Continuity or closed switch contacts should be indicated. If the switch fails either test, it must be replaced.



Spark and Fan Switch  
Top View (Switch shown in off position)

### Spark Switch—Left Burners

Left burner spark switches activate the spark module to ignite left front or left rear burner when the corresponding burner valve is turned to "LITE" position. Follow the right burner spark switch test procedures to check the switch.



Left Burners Spark Switch  
Top View (Switch shown in "off" position)

# Service Information



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### Spark Module

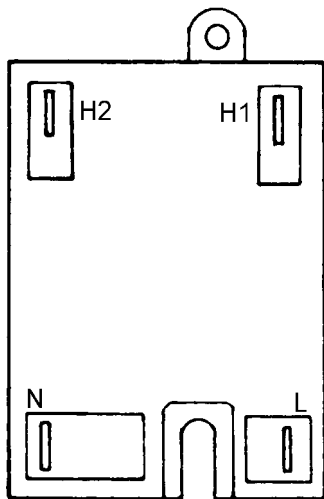
Spark module provides a high voltage spark to the surface burner/grill burner ignitors when any of the surface valves are turned to "LITE" position. The spark module is located at the left front bottom section of the range.

The spark module can be tested by following the procedures below.

1. Turn off power to the range.
2. Remove storage drawer to gain access to cover box located in the left bottom of range.
3. Remove cover box mounting screws to gain access to module.
4. Attach leads of an AC voltmeter to spark module "L" and "N" terminals.
5. Turn on power to range and turn any surface valve to "LITE" position. 120 VAC should be indicated and ignitors should spark when 120 VAC is applied to "L" and "N" terminals.

If no voltage is indicated, check for loose connections, broken wiring or a failed spark switch.

If voltage is indicated but no sparking occurs, check for open or damaged ignitor leads, loose or dirty plug block to burner cartridge ignitors. If ignitors and connections check good, replace spark module.



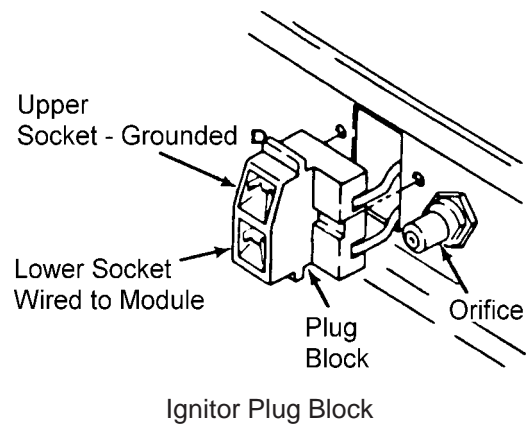
Spark Module

### Ignitor Plug Block and Wiring Assembly

Left and right ignitor plug block and wiring assemblies provide the electrical connection from spark module to the surface burner and grill burner ignitors.

Follow the procedures below to test the plug block and wiring assembly.

1. Turn off power to the range.
2. Remove surface burner/grill cartridge from maintop.
3. Remove storage drawer.
4. Remove cover box mounting screws to gain access to spark module.
5. Disconnect plug block wire lead(s) from spark module H1 or H2 terminals.
6. Insert one ohmmeter lead into plug block wire lead terminal and insert other ohmmeter lead to the range frame. Continuity should be indicated. If no continuity is indicated, check for a loose ground wire connection or replace plug block and wiring assembly.
7. Insert one ohmmeter lead into plug block upper socket and touch other ohmmeter lead to the range frame. Continuity should be indicated. If no continuity is indicated, check for a loose ground wire connection or replace plug block and wiring assembly.
8. Insert ohmmeter leads into upper and lower plug block sockets. No continuity should be indicated. If continuity is indicated, replace plug block and wiring assembly.



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### Surface Burner Module Ignitor

Surface burner module ignitor consists of an electrode, cap, bracket assembly, and electrode connector.

The electrode, cap, and bracket assembly is mounted in the center of the surface burner module pan between the front and rear surface burners.

The electrode connector, mounted to the burner support base, provides electrical connection between spark electrode and ignitor plug block.

Follow the procedures below to test the ignitor.

1. Turn off power to the range.
2. Remove surface burner module from maintop.
3. Remove surface burner module top by depressing module top retainer clips (either side) and lifting the top off of the module pan.
4. Using an ohmmeter, touch one meter lead to the top of the electrode cap and other meter lead to the ground pin which is screw mounted to the rear of the module pan. Continuity (zero ohms) should be indicated, check for dirty or loose ground connectors (electrode bracket and ground pin mounting screws or loose electrode cap).

**NOTE:** Electrode cap must have a good ground for proper spark operation.

5. Remove rear burner mounting screw and burner. Touch one ohmmeter lead to the tip of the ignitor electrode (under the electrode cap) and other ohmmeter lead to the tip of the electrode connector protruding through the center hole at the rear of module pan. Continuity (zero ohms) should be indicated. If a high resistance or no continuity is indicated, disassemble ignitor, cap, and bracket assembly from module pan and burner support base. Disconnect electrode wire lead from electrode connector, and check each individual component (electrode and electrode connector) for continuity to determine the faulty component.

**NOTE:** Check for cracked or broken ceramic on ignitor and electrode connector. If damaged, replace component.

### Grill Module Ignitor

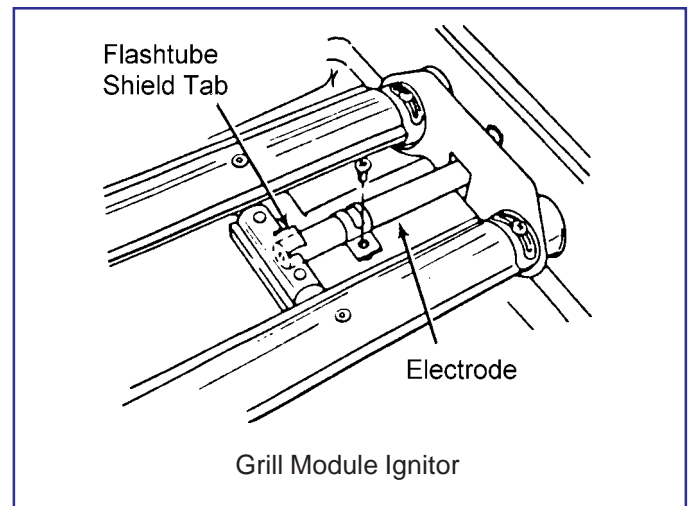
Grill module ignition system consist of spark electrode, which is screwed to grill burner assembly, and flashtube which is riveted to burner assembly between left and right grill burners.

Follow the procedures below to check the grill module ignitor.

1. Turn off power to the range.
2. Remove grill module from maintop.
3. Using an ohmmeter, set to low ohms scale, touch one meter lead to flashtube and touch other meter lead to ground pin which is screw mounted to the rear of the module pan. Continuity (zero ohms) should be indicated. If a high resistance or no continuity is indicated, check for loose or dirty ground connections (burner assembly and ground pin mounting screws).

**NOTE:** Flashtube must have a good ground for proper spark operation.

4. The spark electrode can be checked for continuity by removing it from burner assembly.
  - a. Remove electrode mounting screw.
  - b. Carefully bend flashtube shield tab slightly upward to allow the removal of electrode.
  - c. Connect ohmmeter leads to the tips of the electrode. Continuity (zero ohms) should be indicated. If a high resistance or no continuity is indicated, replace electrode.
  - d. Check electrode ceramic for breakage or cracks. If damage, replace electrode.



# Service Information



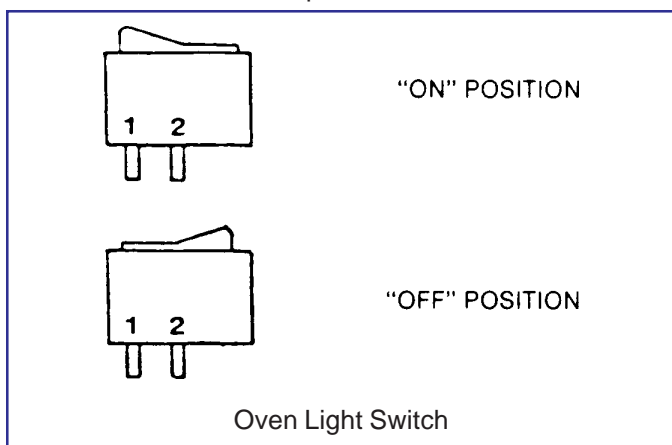
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### Oven Light Switch

Oven light switch is a single pole single throw rocker type switch mounted in the right side of the control panel. Follow the procedures below to test the switch.

1. Turn off power to the range.
2. Partially remove control panel to gain access to switch terminals.
3. Disconnect switch wire leads.
4. Attach an ohmmeter, set to the R X 1 scale, to switch terminals 1 and 2. Continuity should be indicated when the switch is set to "ON" position and no continuity (infinite ohms) should be indicated when switch is set to "OFF" position.



### Oven Light Socket

Oven light socket is mounted in the left rear upper corner of the oven tank adjacent to oven heat sensor. The light socket can be checked for continuity by following the procedures below.

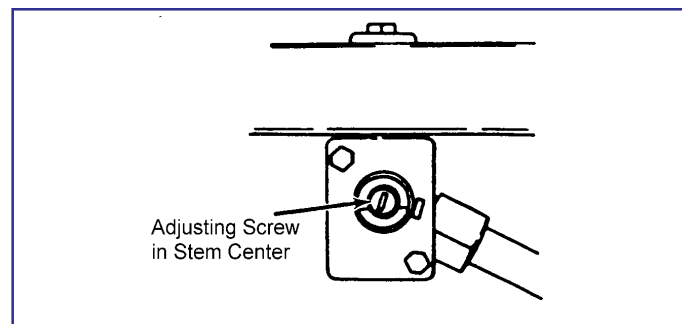
1. Turn off power to the range.
2. Remove maintop assembly to gain access to socket terminals.
3. Disconnect socket wire leads.
4. Attach an ohmmeter to socket terminals. When bulb is removed from the socket, no continuity (open) should be indicated. When bulb is screwed into socket, bulb filament resistance (approximately 30–40 ohms) should be indicated. If infinite resistance (open) is indicated with bulb in place, replace bulb and recheck. If bulb replacement does not correct the problem, replace socket.

### Surface/Grill Burner Valve Adjustment

The surface/grill burner valves are push to turn, 170° rotation burner valves with detent positions at low and medium settings. Low burner flame can be adjusted by following the procedures below:

1. Turn burner valve to "LITE" position to ignite burner.
2. After burner ignites, turn valve to "LOW" setting and remove knob.
3. Turn downdraft fan motor on "HI" speed.
4. Adjust low burner flame by turning adjustment screw in the center of the valve stem.

Normally, low burner flame should be set to allow a minimum steady blue flame without being extinguished by downdraft air draw. Verify final adjustment, by turning from "HI" to "LOW" several times to make sure burner does not go out.



### Surface Burner Adjustment

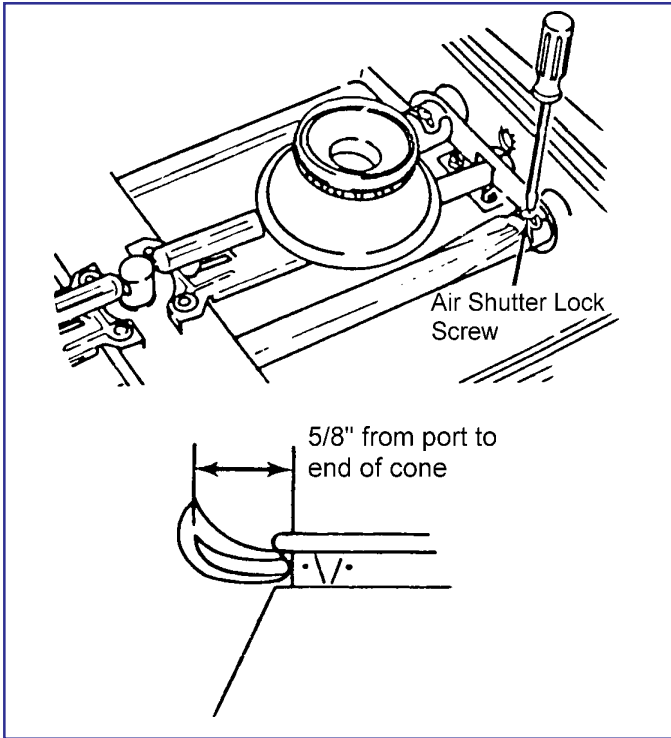
1. Remove surface burner module from maintop.
2. Remove module top by depressing retaining spring clips on either side of module pan and lifting off the module top.
3. Reinstall surface burner module into maintop.
4. Push in and turn surface valve knob fully counterclockwise to light burner. If burner will not light, light it with a match. Turn burner knob to "HI" setting.
5. Adjust air shutter until inner blue cones of flame approximately 5/8" long are obtained. The proper way to do this is to open the air shutter until flames start to lift from the burner. Close air shutter until flames are stable on burner.
6. Remove surface module and install module top. Reinstall module into maintop.
7. Place a pan of water on burner grate and check for proper lighting and flame characteristics. There should be no yellow tips and no lifting of flames.
8. Readjust if necessary.



# Service Information

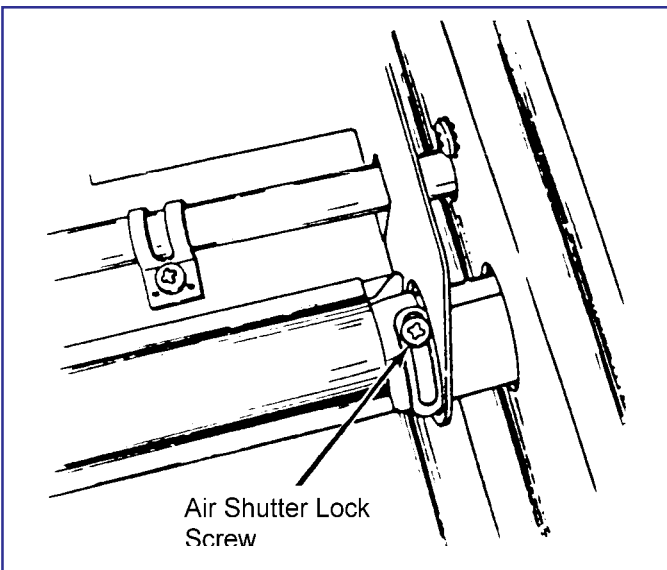
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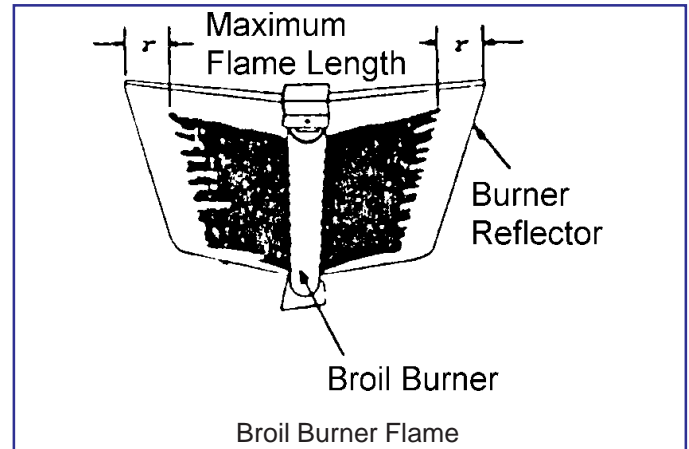
### Grille Burner Adjustment

1. Remove grille grates from module pan.
2. Push in and turn surface valve knobs fully counterclockwise to light grille burners. If burners will not light, manually light burners with a match. After burners ignite, turn valves to "HI" position.
3. Adjust air shutter until inner blue cones of flame approximately 1/2" long are obtained. The proper way to do this is to open the air shutter until flames start to lift from burner. Close the air shutter until flames are stable on burner.



### Broil Burner Adjustment

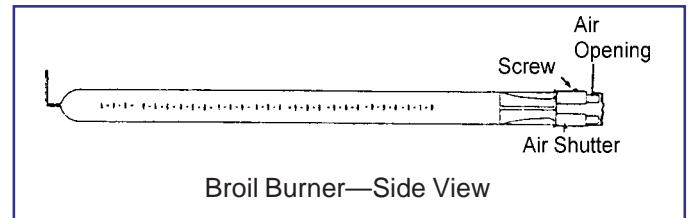
Air shutter on the neck of the broil burner should be adjusted to provide a clean burning flame (usually 1/4" to 3/8" open). If too much air is provided, a harsh blowing flame pattern will be produced and flashback into the burner may occur. If insufficient air is provided, the combustion will be poor and sooting may result.



Also check for proper flame size. Burner flame should not extend beyond the sides of the broil burner reflector. If this occurs, check for correct gas pressure and/or adjust air shutter opening.

Partial burner removal is required to adjust the air shutter.

1. Remove burner mounting screws at the front of the burner and carefully pull burner forward to gain access to air shutter lock screws.
2. Loosen air shutter lock screw and adjust shutter to provide an air opening of approximately 1/4" to 3/8".
3. Reinstall burner and check burner operation.



# Service Information

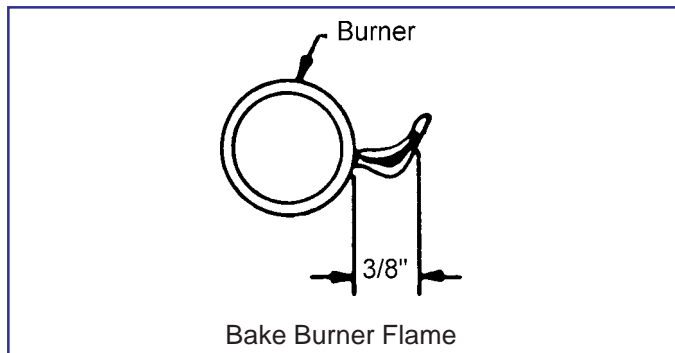


## WARNING

To avoid possible electrical shock, personal injury, or death, disconnect power and turn off gas supply before servicing, unless testing requires it.

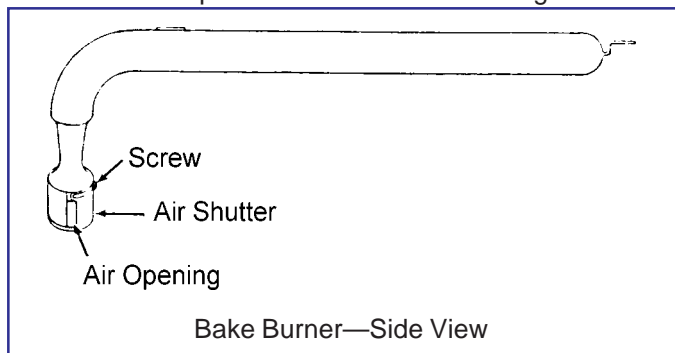
### Bake Burner Adjustment

The appearance of a properly adjusted gas flame is one having an inner core of bluish-green and an outer mantle of dark blue. The length of the inner cone on the flame will be about 3/8" when correctly adjusted. Flame characteristics should be clean but soft.



#### To adjust the bake burner air shutter:

1. Remove storage drawer to gain access to air shutter.
2. Remove oven bottom to observe burner flame.
3. Turn oven on to 350°F setting.
4. Loosen air shutter retaining screw and adjust shutter to provide an air opening of approximately 3/8" or to provide a burner flame as shown above.
5. After adjustment is complete, tighten shutter retaining screw and replace oven bottom and storage drawer.

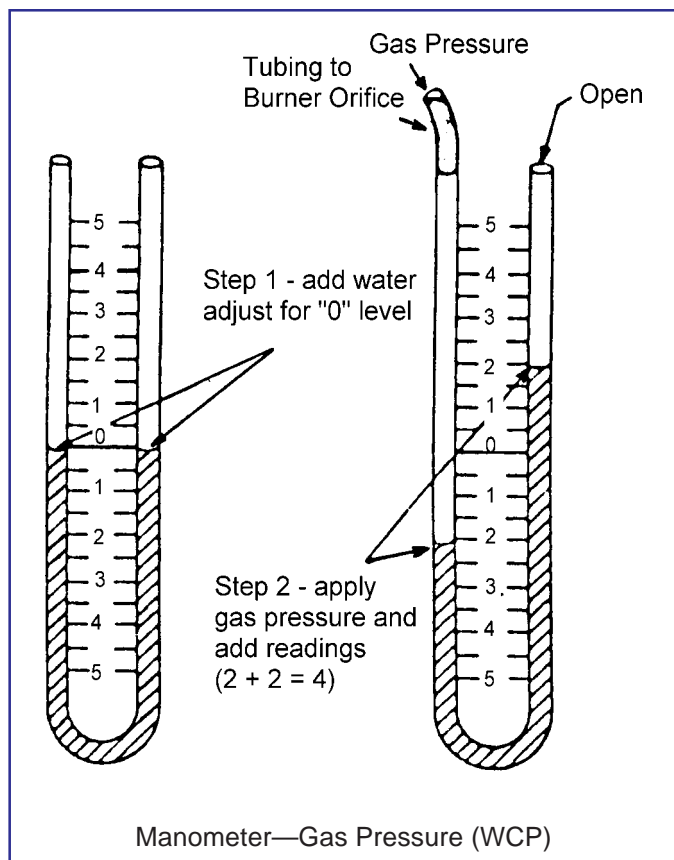


### Gas Pressure and Measurement

Equipment for measurement of gas pressure varies from pressure meters and gauges to the relatively simple and most commonly used manometer. If a pressure gauge or meter other than a manometer is used, follow the directions supplied with the unit. The following information covers the use of a manometer.

A manometer is simply a u-shaped tube of clear plastic or glass. A scale in inches is located between the two legs of the U. In use, the tube is filled with sufficient water to achieve a level at "0" inches. One end of the tube is then connected to the range manifold or gas valve orifice while the other end of the tube or leg is open. When gas pressure is applied, the water on the gas side of the tube is pushed down and the water in the other rises up against the atmospheric pressure on the open end. The sum of the readings below the zero level and above the level will provide the gas pressure in inches water column, or the water column height which the gas pressure will support against the atmospheric pressure on the top of the water column. The manometer therefore indicates gas pressure in inches water column. This conforms with the gas specifications for gas appliances which are given as inches WCP or inches water column pressure.

The example below shows four inches WCP, (two inches above and two inches below the zero level).



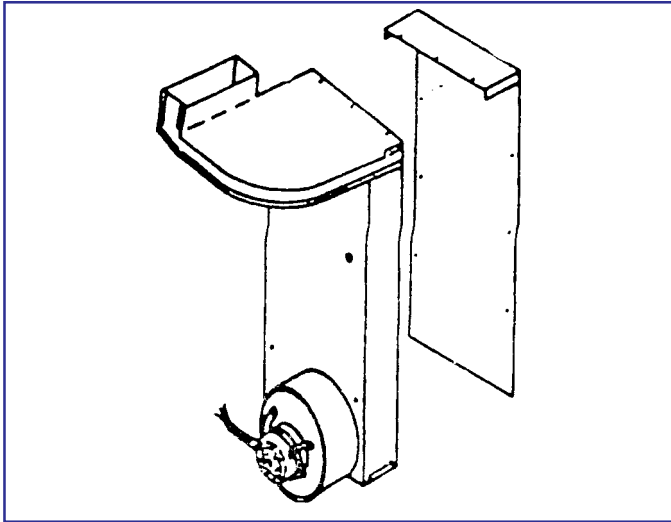
# Service Information

**WARNING**

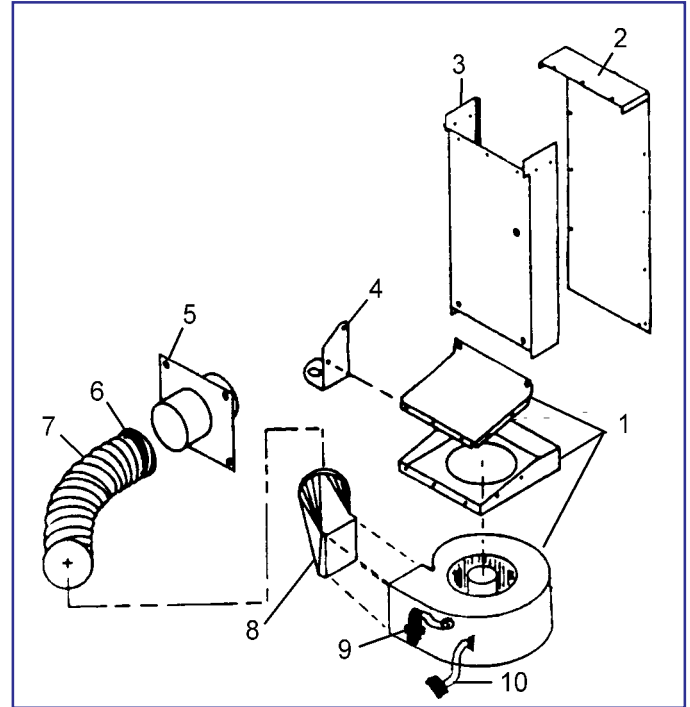
To avoid possible electrical shock, personal injury, or death, disconnect power and turn off gas supply before servicing, unless testing requires it.

## XPH100 Enhanced Blower Kit

The above listed blower kit is available to improve venting capabilities downdraft gas range. Kits may be ordered by model number through the parts department.



## XPH100 Ventilation System



Identification of parts in XPH100 ventilation system.

1	0307923	Assy. Blower w/Capacitor
2.	0307101	Rear Plenum Cover
3	0307100	Rear Plenum
4	0307176	Bracket, Oven Orifice
5	0307592	Thimble Wall/Floor
6	0307680	Clamp 5" - 7"
7	0307550	Conduit
8	0307508	Transition, Blower Door
9	D6711804	Capacitor
10	0309124	Adaptor, Wire Harness
NS	0063709	Oven Burner
NS	0307395	Tubing, Bake Orifice
NS	0307599	Relay, Blower Circuit

**NOTE:** Do not attempt to duct the XPH100 kit through the floor unless a six inch diameter hole can be cut in floor that does not interfere with a joist. Hole in floor must be at back left corner of floor measuring nine inches along the left side and 13 1/2" along the rear wall.

# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

### Maintop

1. Turn off power to the range.
2. Remove surface burner/grill modules from maintop.
3. Remove vent cover and downdraft exhaust filter.
4. Remove screws securing maintop assembly to burner box located in the center vent area.
5. Remove left and right maintop side frame support screws located at the front area of maintop.
6. Remove dilution flue cover trim mounting screws and remove trim.
7. Carefully lift the entire maintop assembly off of the range.

**NOTE:** Individual frames (front, rear, center, sides) and low backrail assembly can now be replaced by removing the appropriate mounting screws and separating the failed part from the maintop assembly.

8. Reverse procedures to reassemble.

### Lo Backrail and Dilution Flue Cover

1. Turn off power to the range.
2. Remove maintop assembly, (see "Maintop" procedures).
3. Remove low backrail and dilution flue cover assembly mounting screws (2 each side), and separate backrail assembly from maintop assembly.
4. If replacing either backrail or cover, drill out two flue cover mounting rivets. Later production models have four mounting rivets. Reassemble using 0097822 rivets.
5. Reverse procedures to reassemble.

### Control Panel—Partial

1. Turn off power to the range.
2. Remove maintop assembly, (see "Maintop" procedures).
3. Remove screws that secure right and left control panel end caps (1 each side) to burner box.
4. Open oven door and remove screws securing front control panel located on the bottom of control panel.
5. Remove surface valve knobs.
6. Remove screws securing control panel to manifold located directly above right rear and left rear surface valve shafts.
7. Pull control panel assembly slightly forward over the surface valve shafts. Access to control panel components (thermostat control, selector switch, spark switches, etc.) is now available for testing or replacement.
8. Reverse procedures to reassemble.

### Control Panel, Inlays and End Cap

1. Turn off power to the range.
2. Remove maintop assembly (see "Maintop" procedures).
3. Remove screws securing right and left control panel end caps (1 each side) to the burner box.
4. Open oven door and remove screws securing front control panel located at the bottom of control panel.
5. Remove surface valve knobs, thermostat control knob, selector knob and fan switch knob. Also, remove clock control buttons by carefully pulling them out of the clock display board.
6. Remove screws securing control panel to manifold, which are located directly above right rear and left rear surface valve shafts.
7. Pull control panel assembly slightly forward over the surface valve shafts. Control panel end caps can now be replaced by removing end cap mounting screws and sliding cap off of the control panel.
8. Remove screws securing ERC control to control panel.
9. Disconnect oven light switch wire leads. Label leads for correct replacement.
10. Remove control panel assembly.
11. Depress oven light switch retaining tabs and push switch out of control panel.
12. Remove control panel end caps by removing end cap mounting screws and sliding caps off of the panel.
13. Reverse procedures to reassemble.

### Fan Switch

1. Turn off power to the range.
2. Partially remove control panel.
3. Disconnect switch wire leads. Label leads for correct replacement.
4. Remove fan switch knob and remove switch mounting screws.
5. Reverse procedures to reassemble.

### Oven Light Switch

1. Turn off power to the range.
2. Partially remove control panel.
3. Disconnect switch wire leads. Label leads for correct replacement.
4. Depress switch spring retaining tabs and push switch out of control panel.

**NOTE:** Removing right control panel end cap may assist with switch removal.

5. Reverse procedures to reassemble.

# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

### Surface Valve Spark Switch and Spark/Fan Switch

1. Turn off power to the range.
2. Partially remove control panel.
3. Disconnect switch wire leads. Label leads for correct replacement.
4. Slide switch upward and off of the surface valve shaft.

**NOTE:** When replacing switch, make sure screws in the top of the surface valve engage into alignment holes on under side of switch for proper spark/fan operation.

5. Reverse procedures to reassemble.

### Clock/Timer Display Board

1. Turn off power to the range.
2. Partially remove control panel.
3. Disconnect 20 wire cable connector plug from back of clock/timer display board.
4. Remove clock/timer control buttons by carefully pulling them out of display board.
5. Remove screws securing clock/timer display board mounting bracket to control panel and carefully remove display board and bracket assembly.
6. Lift clock glass out of glass mounting bracket.
7. Remove display board mounting screws and remove the board. If glass mounting bracket or clock mounting bracket is being replaced, remove mounting screws and separate the brackets.
8. Reverse procedures to reassemble.

### Electronic Range Control (ERC)

1. Turn off power to the range.
2. Partially remove control panel.
3. Remove buttons from ERC.
4. Disconnect multi-wire connector and dual wire (sensor wires) connector from ERC.
5. Remove screws securing ERC to control panel.
6. Reverse procedures to reassemble.



## CAUTION

Handle ERC by its edges or follow instructions on service bulletin number R-341, dated July 22, 1993, to avoid electrostatic discharge damage to circuit board.

### Relay/Power Supply Circuit Board

1. Turn off power to the range.
2. Remove storage drawer assembly.  
Relay/power supply circuit board is located inside the metal case on the bottom left rear corner of range.
3. Remove screws securing metal case to floor shield.
4. Depress tabs on plastic mounts and separate relay/power supply board to metal case.
5. While holding relay/power supply board by its edges transfer wires and ribbon cable to replacement component. See appropriate wiring diagram to verify proper wire connections.
6. Transfer plastic mounts to replacement component.
7. Reverse procedures to reassemble.

### Oven Heat Sensor (Probe)

1. Turn off power to the range.
2. Remove oven door.
3. Remove screws securing sensor to top left of rear oven wall.
4. Carefully pull sensor wires forward then separate the two wire disconnect plug.  
When reinstalling sensor wires, be certain the two wire disconnect plug is pushed through the fiberglass insulation, so disconnect plug cannot contact rear oven wall and possibly overheat.

### Oven Burner Ignitor

1. Shut off power to the range.
2. Remove oven door, oven racks and oven bottom.
3. Remove screws securing ignitor and bracket assembly to burner and lower burner box.
4. Carefully pull ignitor leads into oven cavity. Remove ceramic wire nuts, disconnect ignitor wire leads, and remove ignitor assembly.
5. Slide ignitor out of mounting bracket and transfer bracket to replacement ignitor.
6. Reverse procedures to reassemble.

**NOTE:** The rear of the ignitor protrudes through an opening in the rear insulation retainer. When reinstalling the ignitor make sure the rear of the ignitor protrudes through the opening and that the ignitor leads are not pinched on the insulation retainer.

### Oven Burner

1. Turn off power to the range.
2. Remove oven door, oven racks, oven bottom and storage drawer.
3. Remove ignitor mounting bracket and shield mounting screws and pull ignitor partially into oven tank.

# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

4. Remove oven burner mounting screw located at front section of lower burner box.
5. Lift the rear of burner off of burner orifice and slide burner through opening in the rear of the lower burner box.
6. Reverse procedures to reassemble.

**NOTE:** When installing burner, verify the open end of burner slides down over burner orifice. Burner and orifice can be viewed through storage drawer opening.

### Broil Burner Ignitor

1. Turn off power to the range.
2. Remove oven door and oven racks.
3. Remove screws securing ignitor mounting bracket and shield to broil burner reflector.
4. Carefully pull ignitor and wire leads into oven cavity. Remove ceramic wire nuts, disconnect wire leads, and remove ignitor assembly.
5. Transfer ceramic ignitor wire plug and mounting bracket and shield to replacement ignitor.
6. Reverse procedures to reassemble.

### Broil Burner/Reflector Assembly

1. Turn off power to the range.
2. Remove oven door and oven racks.
3. Remove ignitor shield and bracket mounting screws.
4. Remove burner mounting screws located at front of the burner and remove burner assembly.
5. Reverse procedures to reassemble.

### Lower Burner Box

1. Turn off power to the range.
2. Remove oven door, oven racks, oven bottom and storage drawer.
3. Remove bake burner ignitor mounting screws and pull ignitor partially into oven tank.
4. Remove bake burner mounting screw and remove burner through opening in lower burner box.
5. Remove screws securing lower burner box to bottom insulation retainer and oven tank and remove lower burner box.
6. Reverse procedures to reassemble.

**NOTE:** When reinstalling oven burner, verify open end of burner slides down over burner orifice. Burner and orifice can be viewed through storage drawer opening.

### Burner Box

1. Turn off power to the range.
2. Remove maintop assembly (see "Maintop" procedures).
3. Remove screws securing burner box to left and right side frames (three screws each side).
4. Remove screws securing left and right plug block and orifice mounting plates to rear of burner box.
5. Remove fan interlock (bucket) switch mounting screws and speed nut retainer.
6. Partially remove control panel.
7. Lift burner box to disengage from downdraft top plenum and remove burner box from range.
8. Remove burner box rear cover plate mounting screws and transfer plate to replacement burner box.
9. Reverse procedures to reassemble.

### Top Burner Valve

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Partially remove control panel.
4. Remove burner box mounting screws and plug block orifice mounting plate mounting screws.
5. Disconnect fan interlock (bucket) switch wire leads and remove burner box.
6. Disconnect spark switch/fan switch wire leads and remove switch from valve.
7. Disconnect top burner supply tubing from valve.
8. Remove surface valve mounting bolt and remove valve.
9. Reverse procedures to reassemble.

**NOTE:** After reassembly verify connections for gas leaks using a soap solution and check for proper spark operation.

### Surface Burner Supply Tube

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Remove maintop assembly and burner box.
4. Disconnect burner supply tube fitting from top burner valve.
5. Remove retaining nut securing orifice and tubing to plug block and orifice mounting bracket
6. Remove burner supply tube.
7. Reverse procedures to reassemble.

**NOTE:** After reassembly verify connections for gas leaks using a soap solution and check for proper spark operation.

# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

### Gas Manifold Pipe

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Partially remove control panel.
4. Remove burner box mounting screws and plug block and orifice mounting plate mounting screws.
5. Disconnect fan interlock (bucket) switch wire leads and remove burner box.
6. Remove spark/fan switches from top burner valves.
7. Disconnect top burner supply tubes from top burner valves.
8. Disconnect gas inlet tubing from manifold inlet elbow.
9. Remove screws securing clock/timer heat shield to manifold and remove manifold assembly.
10. Transfer top burner valves and gas inlet elbow to replacement manifold.
11. Reverse procedures to reassemble.

**NOTE:** After reassembly check all connections for gas leaks using a soap solution.

### Gas Inlet Pipe to Manifold Tube

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Disconnect gas supply and downdraft venting ductwork and remove range from cabinet.
4. Remove burner box.
5. Disconnect inlet pipe from manifold inlet elbow.
6. Remove storage drawer from range.
7. Disconnect inlet tubing from inlet manifold fitting.
8. Remove left side panel rear mounting screws. Carefully pull side panel away from range to allow removal of inlet tubing.
9. Reverse procedures to reassemble.

**NOTE:** After reassembly check all connections for gas leaks using a soap solution.

### Inlet Pipe, Pressure Regulator and Street Elbow

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Remove storage drawer and disconnect gas supply to the range.
4. Disconnect inlet manifold tubing from inlet pipe fitting.
5. Disconnect gas valve inlet tubing from shut-off valve.
6. Remove inlet pipe mounting screws and remove inlet pipe assembly.  
Remove pressure regulator by unscrewing it from the street elbow.

If inlet pipe is being replaced, remove street elbow, shut-off valve and manifold inlet pipe fitting and install them on replacement inlet pipe.

7. Reverse procedures to reassemble.

**NOTE:** After reassembly check all connections for gas leaks using a soap solution.

### Shut-Off Valve

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Remove storage drawer to gain access to valve.
4. Disconnect gas valve supply tube from shut-off valve.
5. Unscrew shut-off valve from inlet pipe.
6. Reverse procedures to reassemble.

**NOTE:** After reassembly check all connections for gas leaks using a soap solution.

### Bake/Broil Dual Gas Valve

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Remove maintop assembly and burner box.
4. Disconnect gas valve wire leads. Label leads for correct replacement during reassembly.
5. Disconnect broil burner supply tubing, bake burner supply tubing and valve inlet supply tubing.
6. Remove gas valve mounting screws and remove valve.
7. Transfer valve mounting brackets to replacement valve.
8. Reverse procedures to reassemble.

**NOTE:** After installing the valve check all connections for gas leaks using a soap solution.

### Gas Valve Inlet Supply Tube

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Disconnect gas supply and downdraft venting ductwork and remove range from cabinet.
4. Remove burner box.
5. Disconnect inlet supply tube from gas valve.
6. Disconnect supply tube from shut-off valve.
7. Remove left side panel rear mounting screws. Carefully pull side panel away from range to allow removal of supply tube.
8. Reverse procedures to reassemble.

**NOTE:** After reassembly check all connections for gas leaks using a soap solution.

# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

### Bake Burner Supply Tube

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Disconnect gas supply and downdraft venting ductwork and remove range from cabinet.
4. Remove rear shield mounting screws and remove shield.
5. Remove rear wire cover mounting screws and cover.
6. Disconnect bake burner supply tube from gas valve.
7. Remove retaining nut securing orifice and tubing to orifice support bracket and slide orifice and tubing out of the bracket.
8. Reverse procedures to reassemble.

**NOTE:** After reassembly check all connections for gas leaks using a soap solution.

### Broil Burner Supply Tube

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Disconnect gas supply and downdraft venting ductwork and remove range from cabinet.
4. Remove burner box.
5. Remove rear shield and the rear wire cover.
6. Disconnect burner supply tubing from gas valve and from broil burner orifice.
7. Reverse procedures to reassemble.

**NOTE:** After reassembly check all connections for gas leaks using a soap solution.

### Broil Burner Orifice

1. Turn off power to the range.
2. Turn off gas supply to the range.
3. Disconnect gas supply and downdraft venting ductwork and remove range from cabinet.
4. Remove rear shield and rear wire cover.
5. Disconnect broil burner supply tubing from broil burner supply tubing from broil burner orifice.
6. Remove oven door and oven racks.
7. Remove broil burner mounting screws and pull burner and ignitor assembly forward to allow access to burner orifice.
8. Remove broil burner plate mounting screws and remove plate.
9. Remove burner orifice retaining nut and push orifice out of rear opening.
10. Reverse procedures to reassemble.

**NOTE:** Check the tubing to orifice connection for gas leaks after reassembly using a soap solution.

### Broil Burner Plate and Gasket

1. Turn off power to the range.
2. Remove oven door and oven racks.
3. Remove broil burner ignitor bracket mounting screws.
4. Remove broil burner and reflector assembly mounting screws and remove assembly from oven.
5. Pull ignitor leads into oven tank and disconnect leads.
6. Remove broil burner plate mounting screws and remove plate and gasket. Inspect gasket for wear or damage. Replace if worn or damaged.
7. Reverse procedures to reassemble.

### Wire Raceway Broil Burner Ignitor

1. Turn off power to the range.
2. Remove broil burner plate and gasket (see "Broil Burner Plate and Gasket Removal" procedures).
3. Remove wire raceway mounting screws. Verify mounting screws do not fall into oven tank airbox.
4. Pull wire raceway forward and out of oven tank.
5. Reverse procedures to reassemble.

### Dilution Flue

1. Turn off power to the range.
2. Remove maintop assembly.
3. Lift dilution flue upward sliding it off of the flueway.
4. Reverse procedures to reassemble.

### Oven Flueway

1. Turn off power to the range.
2. Remove maintop assembly and burner box.
3. Lift and slide dilution flue off of the flueway.
4. Remove oven flueway to oven vent mounting screws and remove flueway.
5. Reverse procedures to reassemble.



# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

### Oven Vent

1. Turn off power to the range.
2. Remove maintop assembly and burner box.
3. Lift and slide dilution flue off of the flueway.
4. Remove oven door and oven racks.
5. Remove broil burner mounting screws and carefully pull burner and ignitor assembly forward to allow access to oven vent mounting screws located at upper section of oven tank.
6. Remove oven vent mounting screws.
7. Move oven vent slightly towards left side of range and lift vent out of top insulation retainer opening.
8. Remove oven flueway and transfer it to replacement vent.
9. Inspect oven vent gasket for wear or damage. Replace it if worn or damaged.
10. Reverse procedures to reassemble.

### Latch Switch—Upper and Lower

1. Turn off power to the range.
2. Remove maintop assembly and burner box.
3. Remove screws securing switch to switch mounting bracket.
4. Disconnect wire leads from switch. Label wire leads for correct replacement.

**NOTE:** Latch switch mounting bracket can also be removed/replaced by removing mounting bracket mounting screws.

5. Reverse procedures to reassemble.

**NOTE:** Verify switch insulators are in place when mounting switches to the bracket.

### Door Latch Assembly

1. Turn off power to the range.
2. Remove maintop assembly and burner box.
3. Remove latch arm mounting screws and slide arm through opening in the front frame.
4. Remove latch switch mounting bracket mounting screws.
5. Remove thermal fan switch mounting screws and locknuts. Move thermal fan switch and latch switch and bracket assembly to the side to allow removal of latch assembly.
6. Loosen latch hold down bracket mounting screw and move bracket off of the latch assembly.
7. Remove screws securing latch mounting bracket assembly to front frame.
8. Lift the rear of latch assembly to allow removal of latch bi-metal and cover through top insulation retainer opening and then slide assembly to the rear to allow removal of latch catch through the front frame opening.

9. Remove screws securing door latch to latch mounting bracket.
10. Transfer latch cover plate and cover plate insulation to replacement latch.
11. Reverse procedures to reassemble.

### Latch Knob and Arm

Latch knob is secured to latch arm by one retaining screw. To remove knob, remove mounting screw and slide knob off of the latch arm.

The latch arm is mounted to the door latch with two mounting screws. Access to latch arm mounting screws requires maintop assembly and burner box removal. Follow maintop assembly and burner box removal procedures. Remove two latch arm mounting screws and slide arm out through front frame opening.

### Thermal Fan Switch

1. Turn off power to the range.
2. Remove maintop assembly and burner box.
3. Disconnect thermal fan switch wire leads.
4. Remove switch mounting screws and locknuts and remove switch.
5. Reverse procedures to reassemble.

### Thermal Hi-Limit Switch Oven

1. Turn off power to the range.
2. Turn off and disconnect gas supply to the range.
3. Disconnect downdraft venting ductwork and remove range from cabinet.
4. Remove rear shield mounting screws and carefully remove shield.
5. Remove rear wire cover mounting screws and carefully remove cover.
6. Disconnect hi-limit switch wire leads.
7. Remove hi-limit switch mounting screws and remove switch.
8. Reverse procedures to reassemble.

### Spark Module

1. Turn off power to the range.
2. Remove storage drawer.
3. Remove screws securing cover box to storage drawer heat shield at left front of the range.
4. Disconnect spark module wire leads. Label leads for correct replacement during reassembly.
5. Remove spark module mounting screws and nuts and remove module.
6. Reverse procedures to reassemble.

# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

### Plug Block and Wiring Assembly (Surface Burner Spark Ignitors)

1. Turn off power to the range.
2. Remove maintop assembly and burner box.
3. Remove plug block mounting bracket mounting screws.
4. Remove plug block green ground wire from range frame.
5. Remove storage drawer.
6. Remove screws securing spark module cover box to storage drawer heat shield.
7. Disconnect wire lead from spark module and remove plug block and wiring assembly from orifice and plug block mounting plate.
8. Reverse procedures to reassemble.

### Male Loading Plug–Supply Cord

1. Turn off power to the range.
2. Remove storage drawer.
3. Unplug power supply cord from male loading plug.
4. Remove screws securing metal cover box to storage drawer heat shield located at left bottom section of range.
5. Depress loading plug spring retaining tabs and push plug out through opening in the cover box. Disconnect wires from male loading plug.
6. Reverse procedures to reassemble.

### Power Supply Cord

1. Turn off power to the range.
2. Remove storage drawer.
3. Unplug power cord from wall outlet and from loading plug mounted in side of the cover box.
4. Remove supply cord strain relief clamp and remove cord.
5. Reverse procedures to reassemble.

### Blower/Fan Cutout Relay

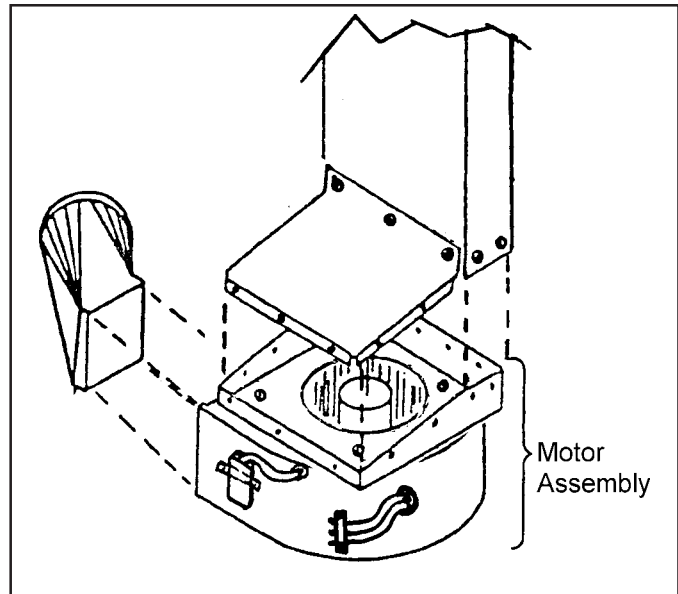
1. Turn off power to the range.
2. Remove storage drawer.
3. Remove screws securing metal cover box to storage drawer heat shield located at right front bottom section of the range.
4. Disconnect blower relay wire leads. Label leads for correct replacement during reassembly.
5. Remove blower relay mounting screws and locknuts and remove relay.
6. Reverse procedures to reassemble.

### Blower Motor (XPH100 Blower Kit)

1. Turn off power to the range
2. Turn off and disconnect gas supply to the range.
3. Disconnect downdraft ductwork from range and remove range from cabinet.
4. Remove right side front trim and right side panel.
5. Remove storage drawer.
6. Disconnect three wire (120 VAC supply) terminal block on right side of blower motor.
7. Remove screws securing motor assembly to blower box top and rear plenum.
8. Raise the rear of the range enough to remove motor assembly.
9. Transfer galvanized blower box bottom to new blower motor.

**NOTE:** Capacitor is supplied with new blower motor. A replacement capacitor is available by ordering part number D6711804.

10. Reverse procedures to reassemble. Be certain to check gas connection with liquid leak detector.



# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

### Rear Plenum, Rear Plenum Cover and Blower Box Top

1. Turn off power to the range.
2. Turn off and disconnect gas supply to the range.
3. Disconnect downdraft ductwork from range and remove range from cabinet.
4. Remove maintop assembly, burner box and top plenum.
5. Remove screws securing blower box top to motor assembly. Allow motor assembly to rest on floor.
6. Remove screws securing rear plenum cover to rear plenum.
7. Remove screws securing rear plenum to back of range.
8. Reverse procedures to reassemble.

### Top Plenum

1. Turn off power to the range.
2. Turn off and disconnect gas supply to the range.
3. Disconnect downdraft ductwork from range and remove range from cabinet.
4. Remove maintop assembly and burner box.
5. Remove upper rear shield mounting screws and carefully remove shield.
6. Remove rear wire shield mounting screws and carefully remove shield.
7. Remove rear plenum cover mounting screws and carefully remove cover.
8. Remove top plenum mounting screws and remove plenum.
9. Reverse procedures to reassemble.

### Fan Interlock (Bucket) Switch

1. Turn off power to the range.
2. Remove maintop assembly and burner box.
3. Remove switch mounting screws and speed nut retainer.
4. Disconnect switch wire leads and remove switch.
5. Reverse procedures to reassemble.

### Oven Light

1. Turn off power to the range.
2. Unscrew (counter clockwise) knurled glass lens and remove it from light socket.
3. Unscrew bulb from the socket



## CAUTION

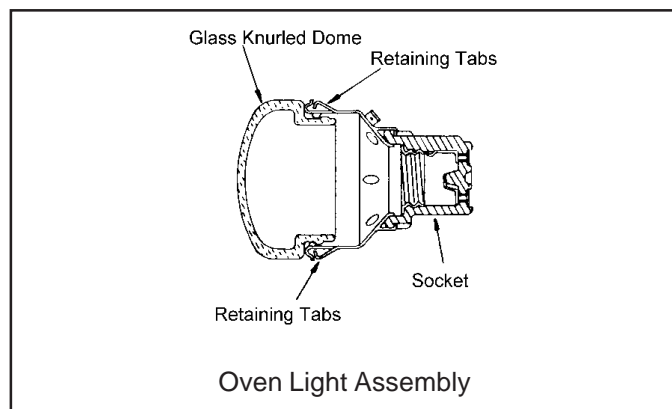
Wear protective gloves when removing or replacing bulb in case of bulb breakage.

4. Reverse procedures to reassemble.

**NOTE:** Replace with 40 watt appliance bulb only.

### Oven Light Socket

1. Turn off power to the range.
2. Turn off and disconnect gas supply to the range.
3. Disconnect downdraft ductwork and remove range from cabinet.
4. Unscrew oven light lens and remove light bulb.
5. Remove upper rear shield mounting screws and remove shield.
6. Remove rear wire shield mounting screws and remove shield.
7. Depress light socket retaining tabs to release socket from oven tank and push socket assembly partially into oven cavity.
8. Disconnect socket wire leads and remove socket.
9. Reverse procedures to reassemble.



### Side Panel Trim

1. Turn off power to the range.
2. Turn off and disconnect gas supply to the range.
3. Disconnect downdraft ductwork and partially remove range from cabinet.
4. Remove maintop assembly and partially remove control panel.
5. Remove side panel trim mounting screws and carefully slide trim off of the side panel.
6. Reverse procedures to reassemble.

# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

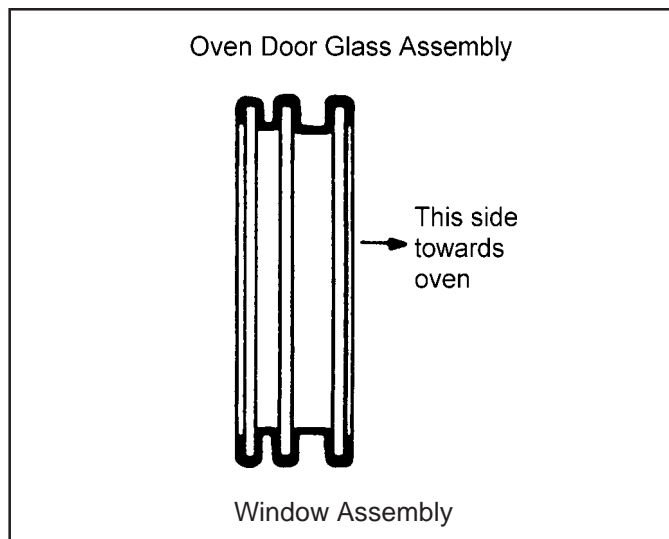
### Main End (Side) Panel

1. Turn off power to the range.
2. Turn off and disconnect gas supply to the range.
3. Disconnect downdraft ductwork and remove range from cabinet.
4. Remove maintop assembly and partially remove control panel.
5. Remove screws securing burner box and side panel to side frame.
6. Remove side panel mounting screws at the rear of range.
7. Remove side panel front trim mounting screws and remove trim and side panel.
8. Reverse procedures to reassemble.

**NOTE:** Side panel front trim mounting holes must be drilled in the replacement panel in order to install trim mounting screws.

### Oven Door

1. Remove oven door by opening it to the first "STOP" position, grasping both sides of the door and lifting upward and off of the hinges. Lay door (backer side down) on a flat protected surface.
2. Remove door frame mounting screws and carefully remove frame assembly. Frame, air baffle, door handle or handle spacers can now be replaced by removing the handle mounting nuts.
3. Carefully remove door glass. Verify all rubber bumpers are in place when reinstalling door glass.
4. Remove screws securing top trim/handle assembly to top of door bracket.
5. Remove screws securing handle to top trim.
6. Remove screws securing two piece air baffle to door backer.
7. Remove screws securing three glass support brackets to door backer.
8. Slide out hinge pins from hinge channels. Door gasket, door backer, door glass package and oven door pad can be accessed as follows.
9. Remove screws securing door backer to door pad.
10. At this point note position of door gasket and if gasket is being replaced lift door gasket off door pad.
11. Window assembly is held to door pad by retainers (one along each side). Verify door glass is positioned as shown in the following diagram.
12. Carefully position door gasket around door pad then install, but do not tighten screws securing door backer to door pad. Turn assembly around (finished side up) then final position door gasket. Turn assembly around (finished side down) and tighten all screws.
13. Reverse procedures to reassemble.



### Frameless Door

1. Open oven door and remove screws securing door to hinges (if so equipped).
2. Open oven door to first stop position (1/3 open) then grasp both sides and lift off the hinges. Place on a protected surface.
3. Remove screws on right and left sides of oven door.
4. Remove screws from the bottom of oven door. Detach right and left end caps and glass support angles.
5. Remove side screws securing top door trim to oven backer. Separate glass outer door, trim and handle from door assembly.
6. Detach door handle by removing door handle screws.
7. Detach heat shield from oven door backer, by removing hex screws.
8. Access remainder of door assembly by removing hex screws from oven door backer.
9. Reverse procedure to reassemble.

# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

### Storage Drawer

1. Remove storage drawer by pulling it out to fully open or stop position, lifting the drawer at the rear to disengage the drawer track rollers from the drawer runners, and then sliding the drawer out of the range.
2. To remove outer drawer panel assembly, remove panel mounting screws (2 top, 2 bottom) and remove assembly from drawer liner. If outer drawer panel, glass, or glass frame trim is being replaced, drill out mounting rivets, separate glass and frame from drawer panel, and replace item as required. Use replacement rivet, part number 0096342, to reassemble drawer panel assembly.
3. If storage drawer liner is being replaced, remove outer drawer panel assembly (Step 2) and drill out drawer liner mounting rivets. Use replacement rivet, part number 0096342, reassemble liner.
4. If storage drawer assembly is being replaced, remove outer drawer panel assembly (Step 2) and drawer liner (Step 3). Drill out left and right drawer runner mounting rivets. Use replacement rivet, part number 0076357, to mount storage drawer runners.
5. If left or right storage drawer runner is being replaced, remove drawer from range (Step 1) and drill out the appropriate runner mounting rivets. Use replacement rivet, part number 0076357, to mount replacement runner.

### Storage Drawer Track

1. Remove storage drawer by pulling it out to fully open or stop position, lifting drawer at rear to disengage drawer track rollers from drawer runners, and sliding drawer out of the range.
2. Tracks are mounted to a rear support and frame of range. Remove track mounting screws and remove track. If track support is being replaced, remove mounting screw securing it to side frame and remove support.

### Oven Door Hinge

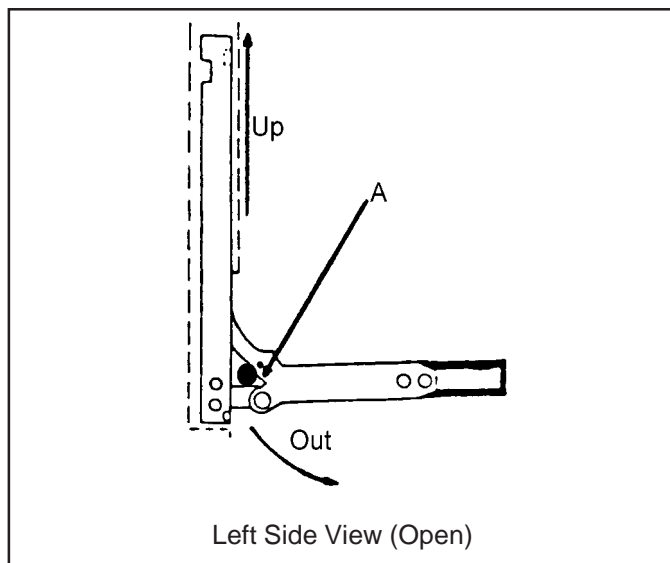
1. Turn off power to the range.
2. Remove oven door.
3. Carefully open the hinge to fully open position and insert a spacer approximately 1/2" in diameter into hinge slot which will retain hinge arm in extended position as shown in the following diagram.

**NOTE:** Be careful not to allow spacer to slip out as damage to front frame or injury to installer may occur.

4. Remove hinge mounting screws from front frame.
5. Slide hinge upward and then move top of hinge toward rear of the range and withdraw hinge through frame opening.

**NOTE:** An alternate method would be to remove right or left end panel and withdrawing hinge. This method does not require hinge arm to be in the fully extended position only open hinge arm to first "BROIL" stop position.

6. Reverse procedure to reinstall hinge. Carefully support hinge body with your foot then open hinge arm and install pin support.



### Surface Burner Module

1. Remove surface burner module by lifting module top tab and sliding module towards front of the range.
2. To remove module top, depress top retaining clips on either side of the module pan and lift top off of the pan. If module top is being replaced, drill out top retaining clip mounting rivets and remount clips on replacement top (use 0041915 mounting rivet)
3. To remove front or rear burners, remove burner retaining screw, lift burner slightly to disengage burner retaining tabs from ignitor and burner mounting bracket, and slide burner out of venturi support.
4. Electrode connector, electrode cap and bracket, venturi support, and burner base assembly can be removed by removing screws securing assembly to module pan supports. The electrode, cap, and bracket can now be replaced by removing mounting screws and unplugging electrode wire lead from electrode connector. Electrode connector can also be replaced by removing connector mounting screw.
5. Module pan ground pin can be replaced by removing pin mounting screw and lock washer after removing module top.

# Disassembly Procedures



## WARNING

Unplug power source and shut off gas supply before servicing, unless testing requires it.

### Grill Module

1. To remove grill module from range, turn oven controls off, remove grill grates, grasp grill burners at front and lift module slightly, then slide module towards front of the range.
2. To remove grill burner and electrode assembly, remove screws securing assembly to burner support and lift assembly out of the pan.
3. To remove burner electrode, remove electrode mounting screw, bend flashtube shield tab slightly upward, lift ignitor upward and slide it out through rear opening.
4. To remove module ground pin, first remove burner and electrode assembly (step 2) and then remove ground pin mounting screw and lock-washer.
5. To remove burner support, remove burner and electrode assembly (step 2) and remove burner support mounting screws.

### Oven Tank

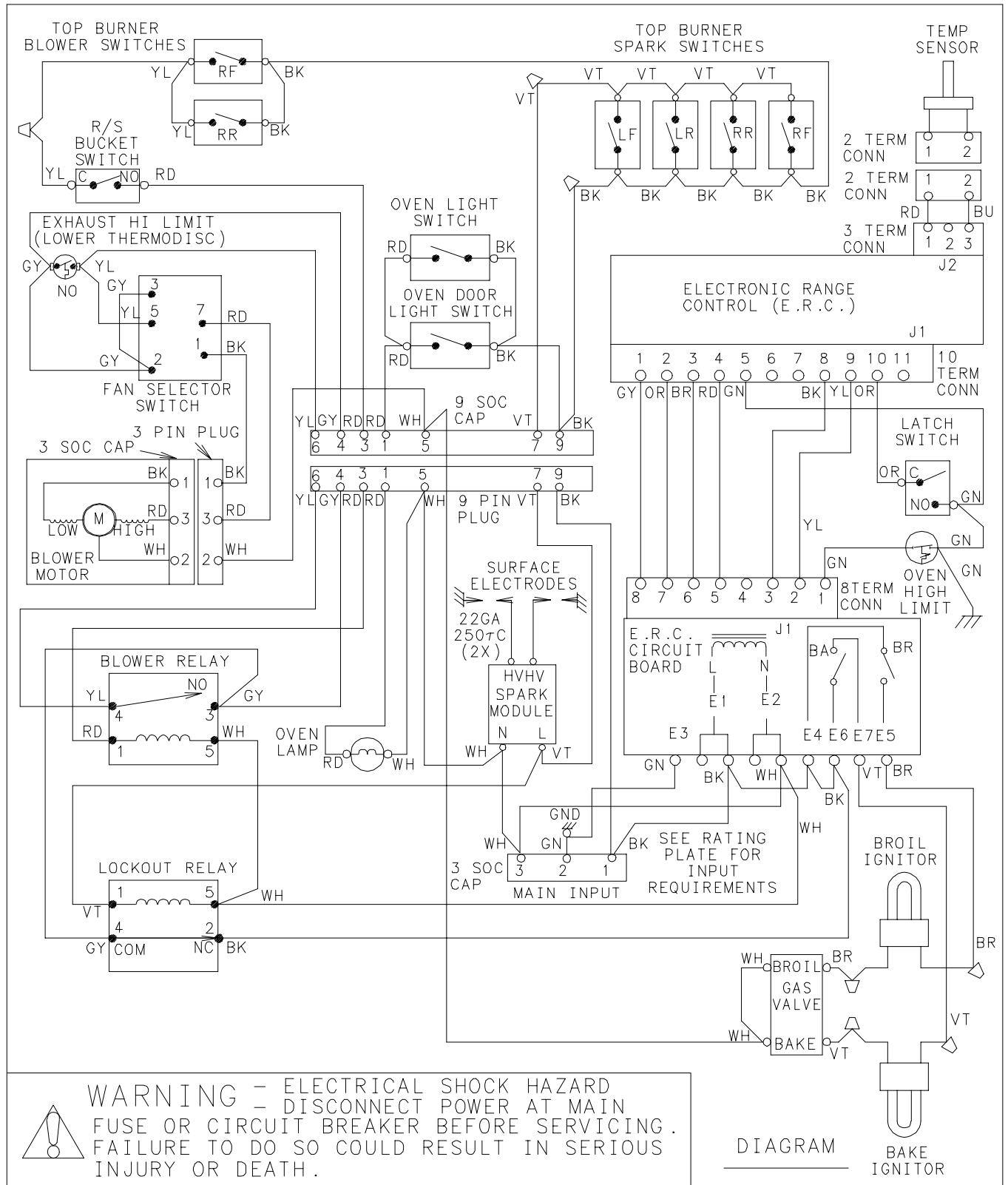
1. Turn off power to the range.
2. Turn off and disconnect gas supply to the range.
3. Disconnect downdraft venting ductwork and remove range from cabinet.
4. Remove oven door, oven racks and storage drawer.
5. Remove maintop assembly and burner box.
6. Remove upper rear shield mounting screws and remove shield.
7. Remove rear wire shield mounting screws and remove shield.
8. Remove rear plenum cover mounting screws and carefully remove cover.
9. Disconnect bake and broil ignitor wire leads, oven hi-limit switch wire leads, oven light socket wire leads and thermostat sensor wire leads at disconnect plug.
10. Remove rear plenum assembly mounting screws.
11. Remove screws securing bake burner orifice support bracket to rear plenum.
12. Pull rear plenum assembly partially away from range to allow access to left oven tank hook bolt retaining nut and flat washer.
13. Remove left and right oven tank hook bolt retaining nuts and washers and remove hook bolts from oven tank.

14. Disconnect broil burner supply tubing from broil burner orifice.
15. Remove broil burner assembly mounting screws and remove burner and ignitor assembly.
16. Remove broil burner support mounting screws and remove support.
17. Remove oven tank chip cover mounting screws and remove cover.
18. Remove oven light lens and bulb.
19. Remove thermostat sensor mounting screws and remove cover.
20. Remove oven bottom.
21. Remove bake burner ignitor mounting screws and remove ignitor and mounting bracket assembly.
22. Remove bake burner mounting screw and remove burner.
23. Remove lower burner box mounting screws and remove burner box.
24. Remove oven vent mounting screws and remove vent assembly and vent gasket. Inspect gasket for damage and replace it if necessary.
25. Disconnect thermal fan switch wire leads and remove top plenum and switch assembly.
26. Remove screws securing door latch switch mounting bracket to door latch.
27. Remove latch arm mounting screws and remove arm. Loosen latch hold-down bracket mounting screw.
28. Remove latch assembly mounting screws and remove latch assembly.
29. Carefully pull oven tank out of the range.
30. Remove oven light socket, broil burner plate and gasket, ignitor wire raceway, and broil burner orifice. Transfer these parts to replacement oven tank.
31. Before inserting replacement oven tank into range, several pieces of thin gauge sheet metal (approximately 10" x 28") should be inserted in range cavity at top, bottom, and sides to help prevent oven insulation from "bunching up" when replacement tank is being inserted into range cavity.
32. Carefully push replacement tank into range until the front lip of tank is approximately inches from the front frame.
33. Remove pieces of sheet metal and push rest of the tank into cavity.
34. Reassemble tank using the reverse procedures.
35. After reassembly is completed, check unit for proper operation.

# Wiring Diagram and Schematic

**WARNING**

To avoid risk of electrical shock, personal injury or death, disconnect power to unit and discharge capacitor before following any disassembly procedures.



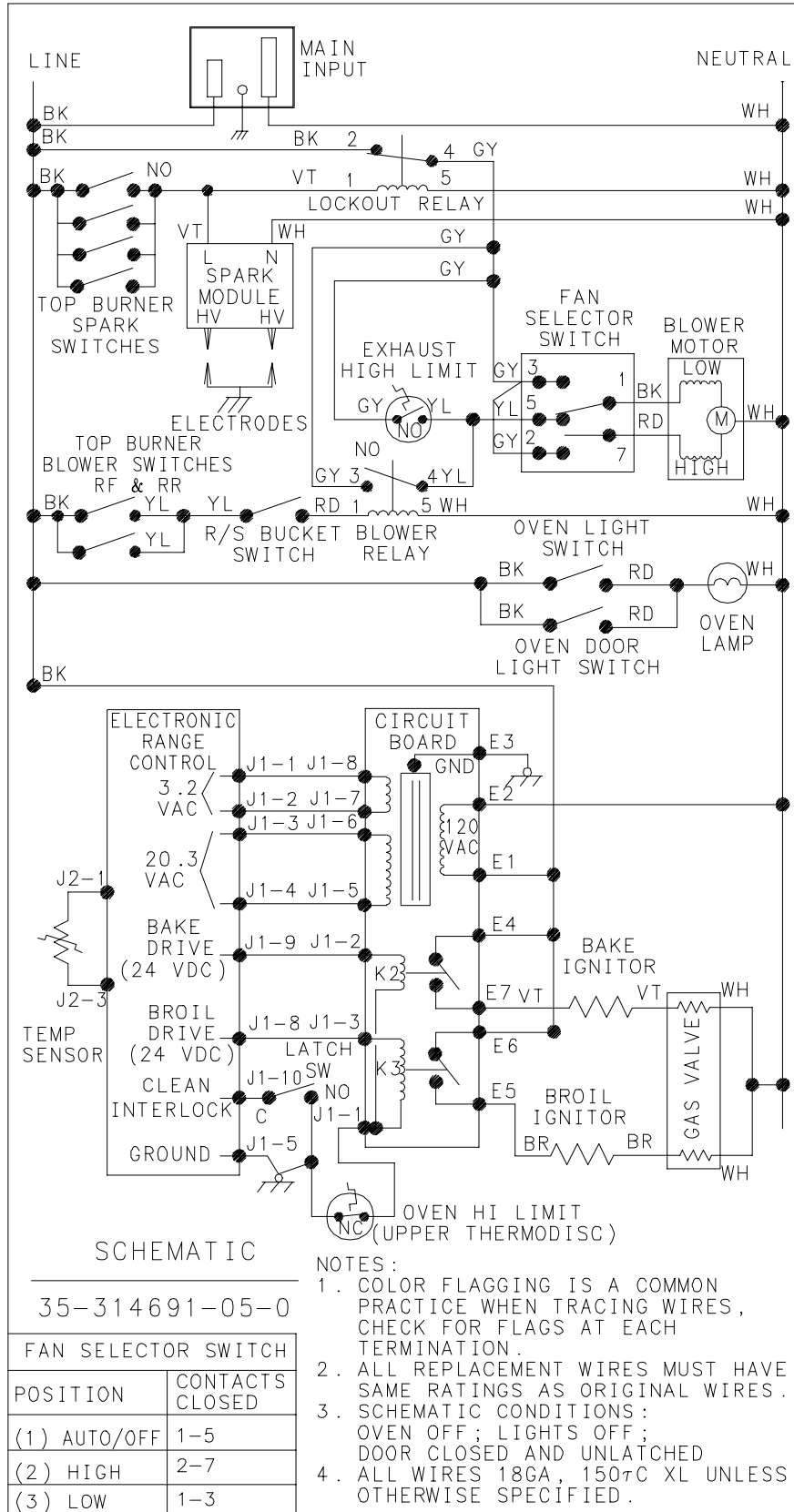
AGDS901\*

# Wiring Diagram and Schematic



**WARNING**

To avoid risk of electrical shock, personal injury or death, disconnect power to unit and discharge capacitor before following any disassembly procedures.



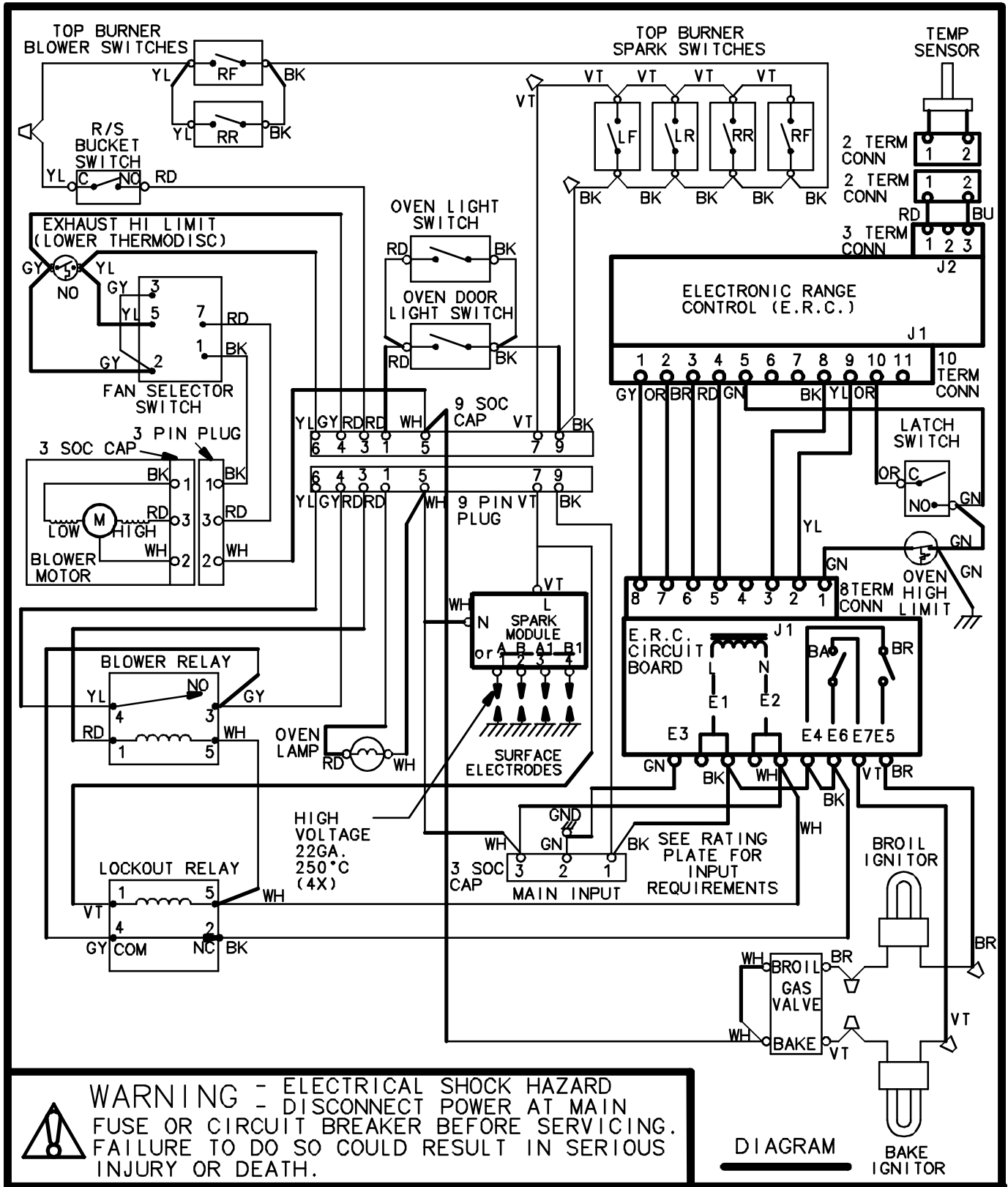
AGDS901\*



# Wiring Diagram and Schematic

**WARNING**

To avoid risk of electrical shock, personal injury or death, disconnect power to unit and discharge capacitor before following any disassembly procedures.

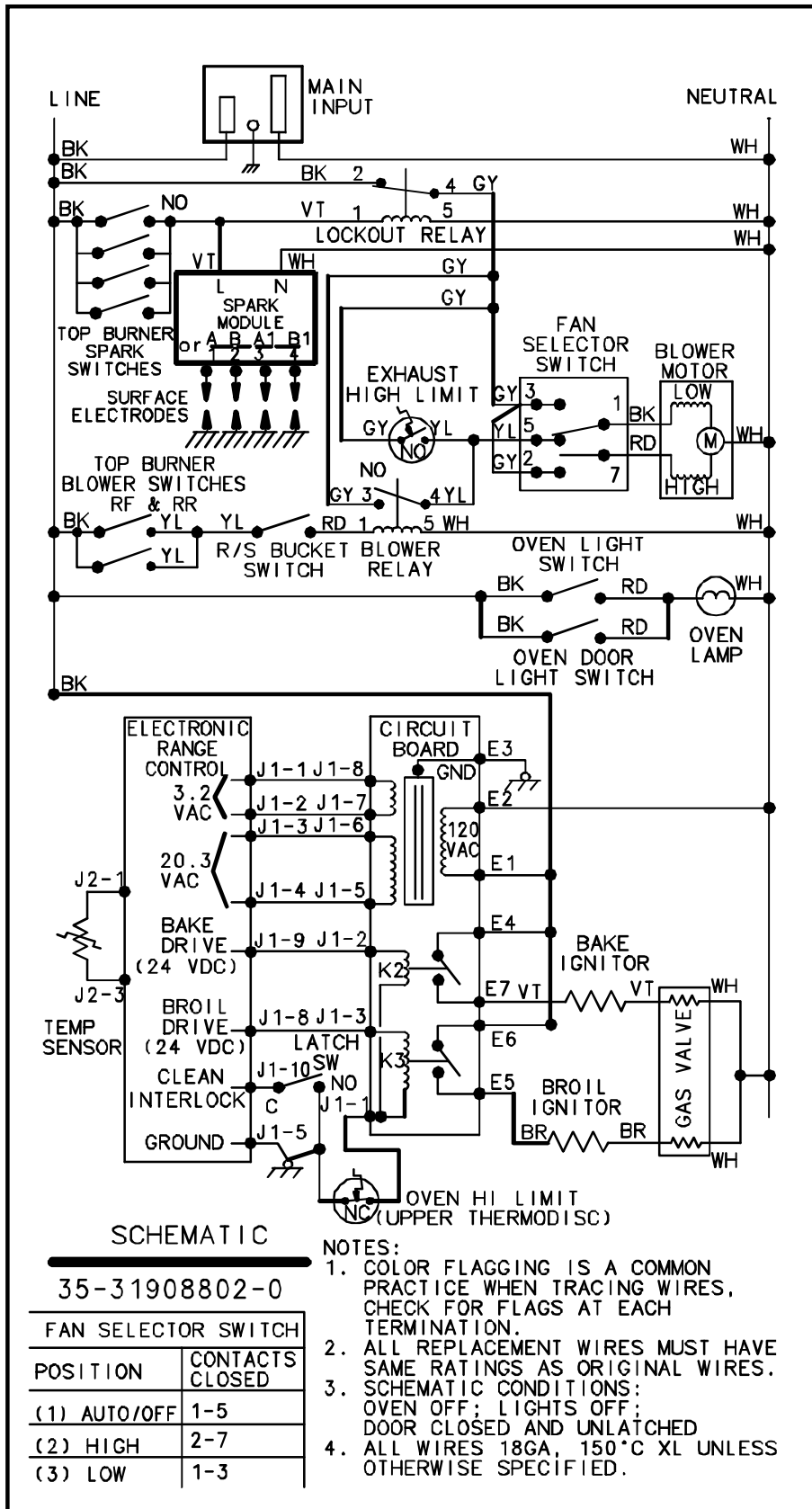


# Wiring Diagram and Schematic



## WARNING

To avoid risk of electrical shock, personal injury or death, disconnect power to unit and discharge capacitor before following any disassembly procedures.

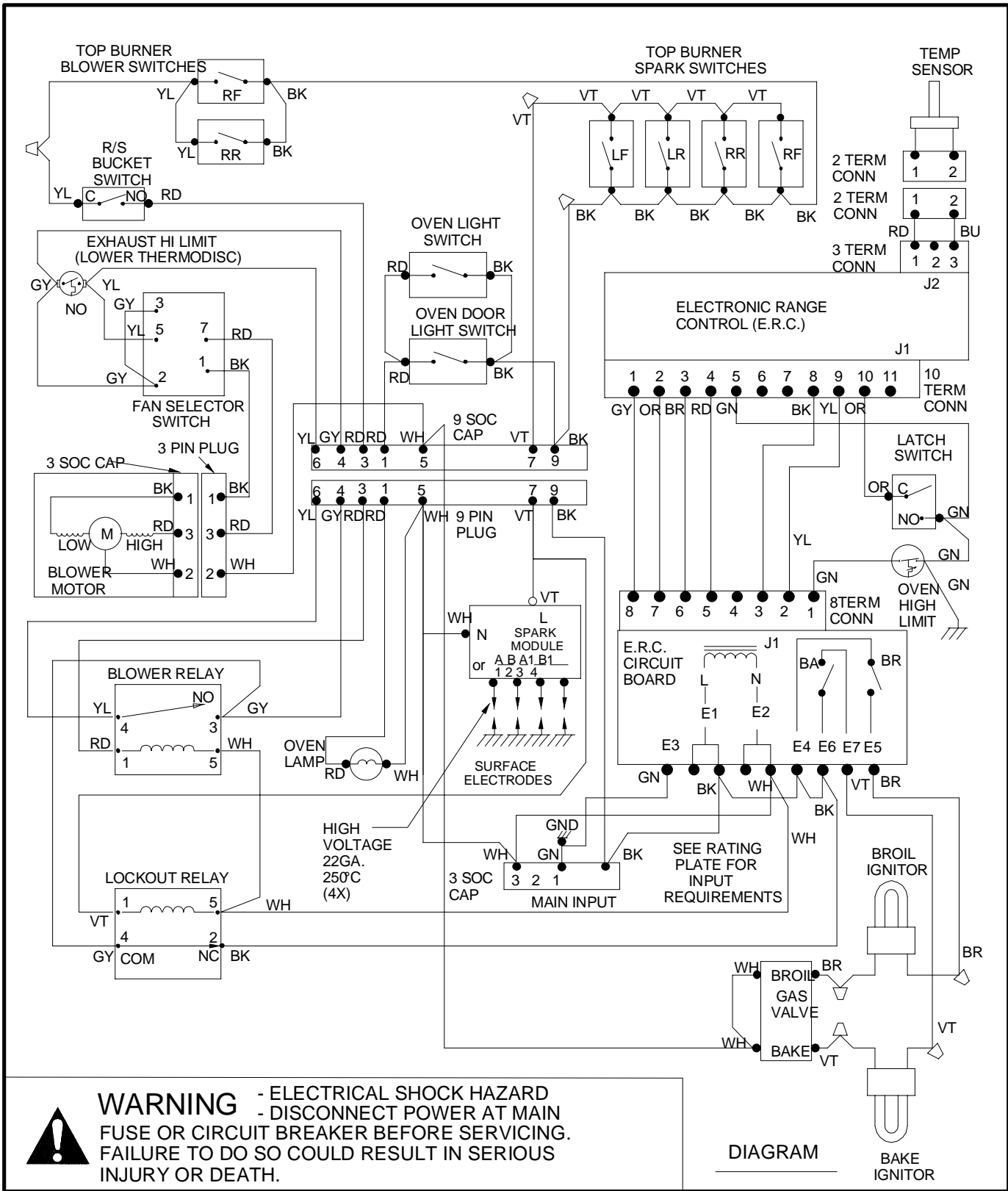


AGDS902 P1131828N

# Wiring Diagram and Schematic

**WARNING**

To avoid risk of electrical shock, personal injury or death, disconnect power to unit and discharge capacitor before following any disassembly procedures.



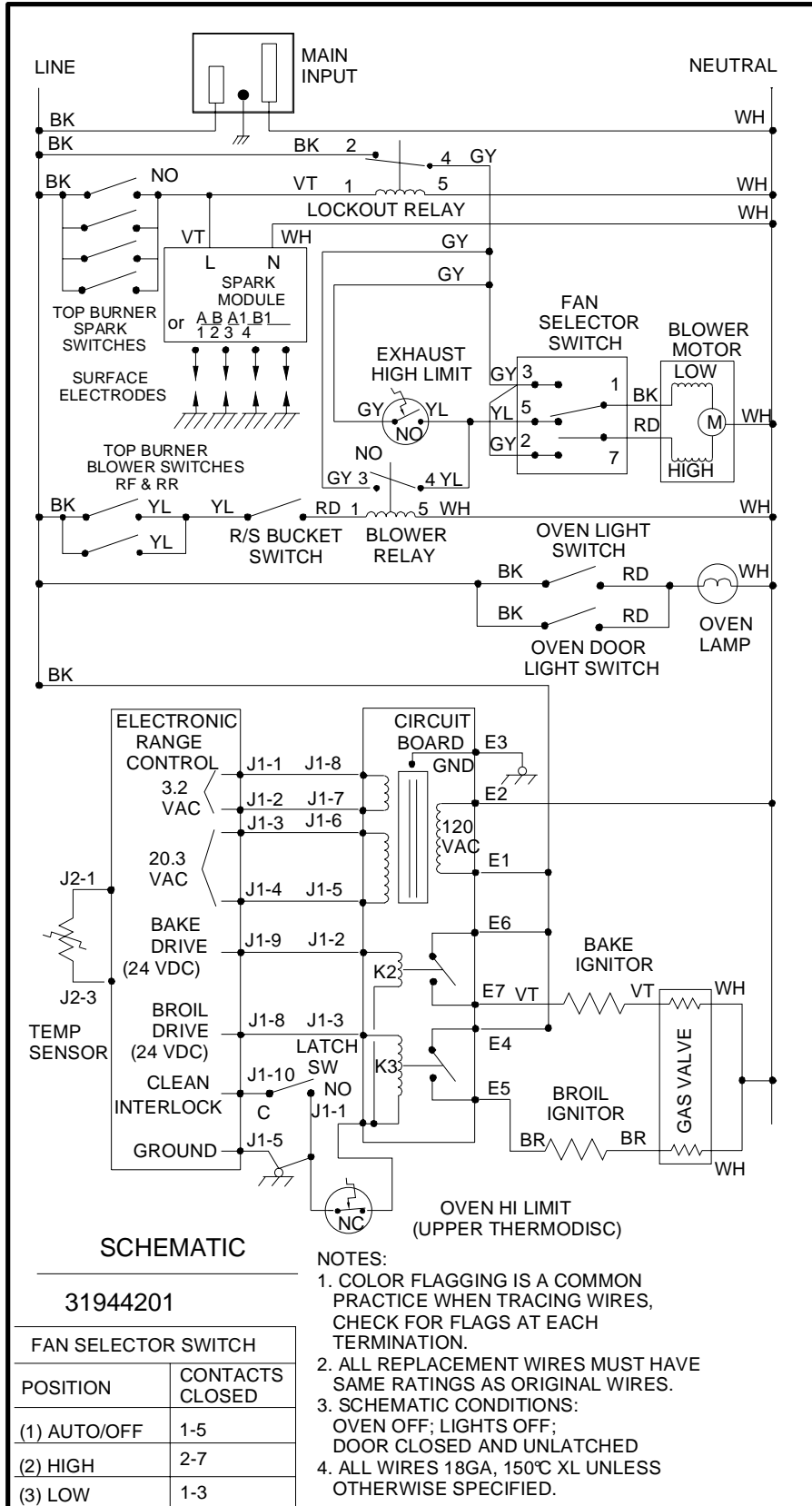
**WARNING** - ELECTRICAL SHOCK HAZARD  
 - DISCONNECT POWER AT MAIN FUSE OR CIRCUIT BREAKER BEFORE SERVICING.  
 FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

# Wiring Diagram and Schematic



## WARNING

To avoid risk of electrical shock, personal injury or death, disconnect power to unit and discharge capacitor before following any disassembly procedures.

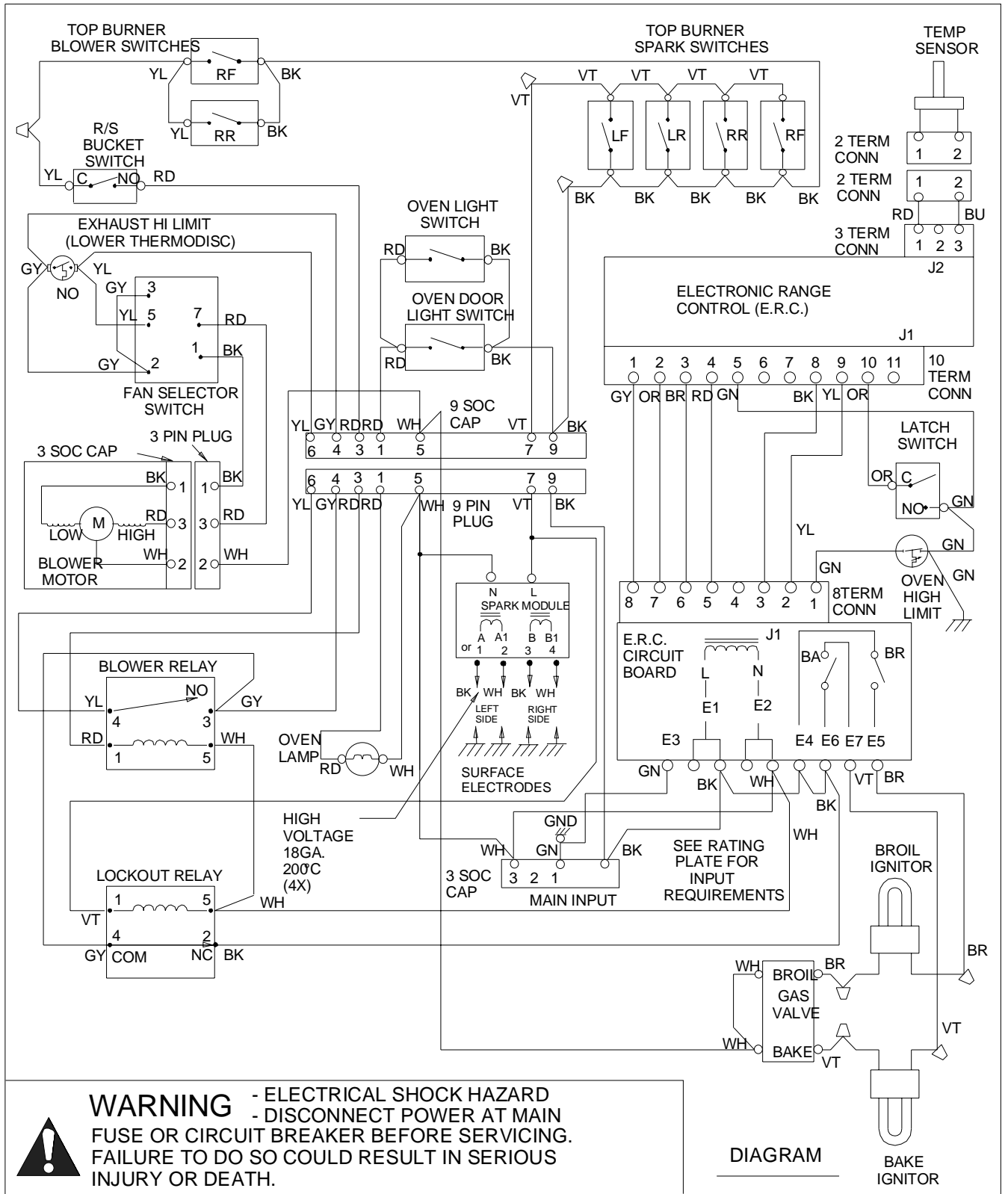


AGDS902 P1131831N

# Wiring Diagram and Schematic

**WARNING**

To avoid risk of electrical shock, personal injury or death, disconnect power to unit and discharge capacitor before following any disassembly procedures.

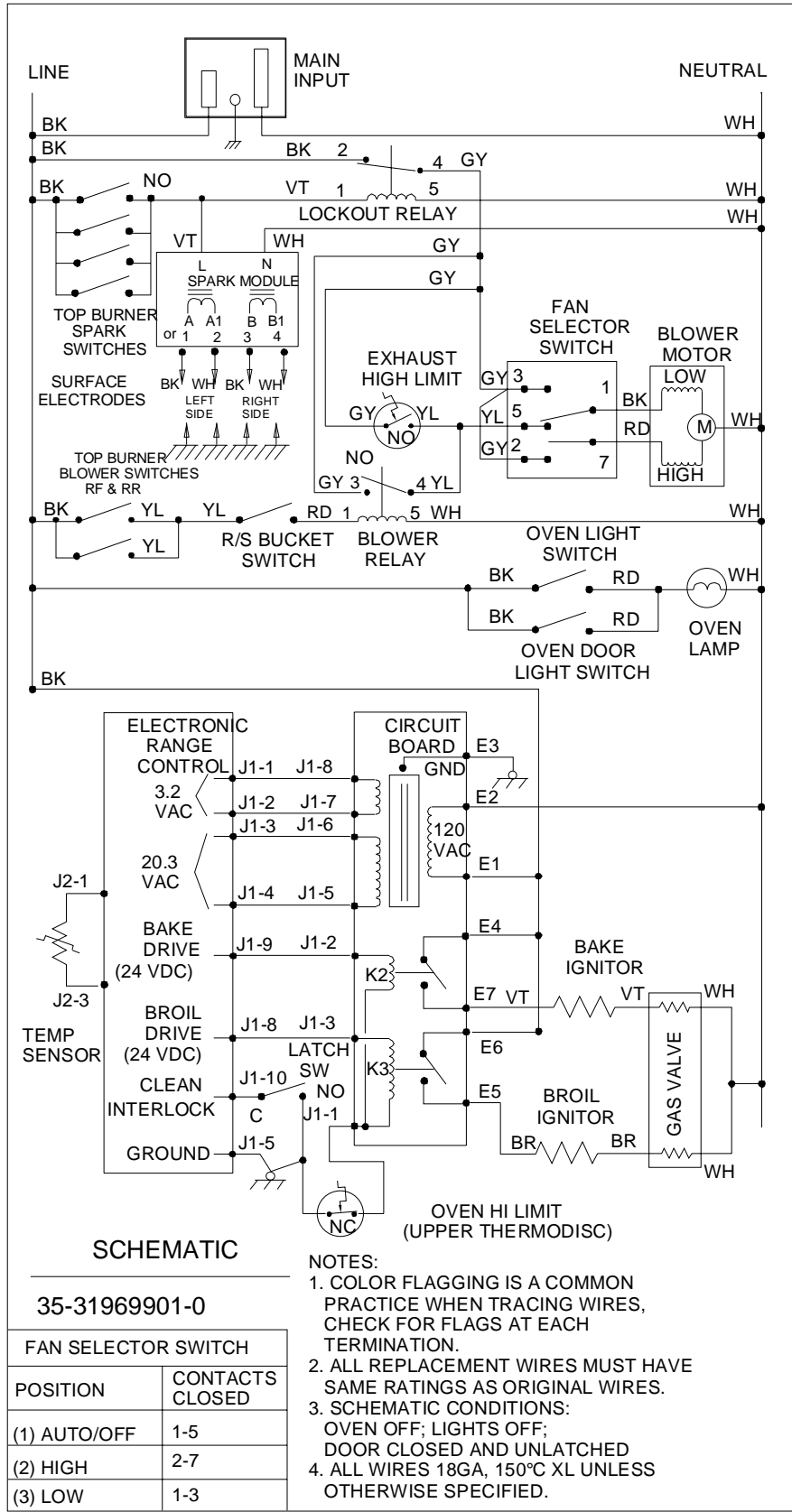


# Wiring Diagram and Schematic



## WARNING

To avoid risk of electrical shock, personal injury or death, disconnect power to unit and discharge capacitor before following any disassembly procedures.



AGDS902 P1131833N