NOTES

This manual contains information for:

- Important Safeguards
- Installation
- Use and Care

Certain ranges come equipped with special features. Determine from a study of your range which of the instructions given in this booklet pertain to your range.

This booklet gives valuable instructions covering the installation, adjustment and use of your range.

HOW TO OBTAIN SERVICE AND/OR PARTS

When your range does not operate in accordance with the instructions in the manual, you should contact the dealer in the immediate vicinity for service. Or, the purchaser may contact the service organization noted on the warranty.

IMPORTANT

TO THE OWNER OF THE RANGE: Retain this owner's manual for future reference.
TO THE INSTALLER: Leave this owner's manual with the range.

Gas Range

Read and Save These Instructions

Range

Record in the space provided below the Model No. and Serial No. of this appliance. These numbers are found on the serial plate located below the lift-up cooktop.

Model No._____ Type Number _____

Serial No. _____ Purchase Date_____

Record these numbers for future use.

IMPORTANT: Keep a copy of your bill of sale. The date on the bill establishes the warranty period should service be required. If service is performed, it is in your best interest to obtain and keep all receipts.

PLEASE DO THIS NOW!

The PRODUCT REGISTRATION CARD should be filled in completely, signed and returned. This information will register your product and help us to serve you quickly in the future if necessary.

Contents

Important Safeguards 3-7
Energy Saving Ideas 7
Installation Instructions 8-9
Backguard Installation Instructions 10
Wall Clearances 11
Alignments and Adjustments. 12-21
Operation of Range 22-24
Broiling 24
Optional Equipment 25-26
Cleaning the Range 27-28
Lift-Off Doors 29
Trouble Shooting Guide 30
Wiring Diagram 31
Built-In Cooktops 33
Built-In Wall Ovens 41

Note: For warranty and service information, please see attachments packaged with range.

WARNING **If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.**

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.

GAS RECESSED WALL OVEN

Slide the oven unit into the cabinet recess as shown in the diagram. Secure the oven unit to the cabinet with wood screws. Be sure to use the cabinet spacer with the wood screw as a "washer" between the wood cabinet and the oven front frame.

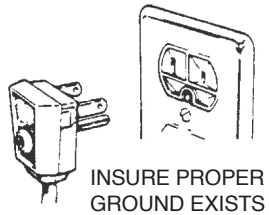
The recess in which the oven is installed shall be constructed so as to provide a complete closure around the recessed portion of the unit and any openings around gas and electrical service outlets MUST be closed at time of installation. **The installation must conform with local codes. In the absence of local codes, the National Fuel Gas Code Z223.1 latest edition.**

A MANUAL GAS VALVE MUST BE INSTALLED IN AN ACCESSIBLE LOCATION IN THE GAS LINE EXTERNAL TO THE UNIT FOR THE PURPOSE OF TURNING ON OR SHUTTING OFF GAS TO THE UNIT.

WARNING

ELECTRICAL GROUNDING INSTRUCTIONS

This appliance is equipped with a three prong grounding plug for your protection against shock hazard and should be plugged directly into a properly grounded receptacle. Do not cut or remove the grounding prong from this plug.



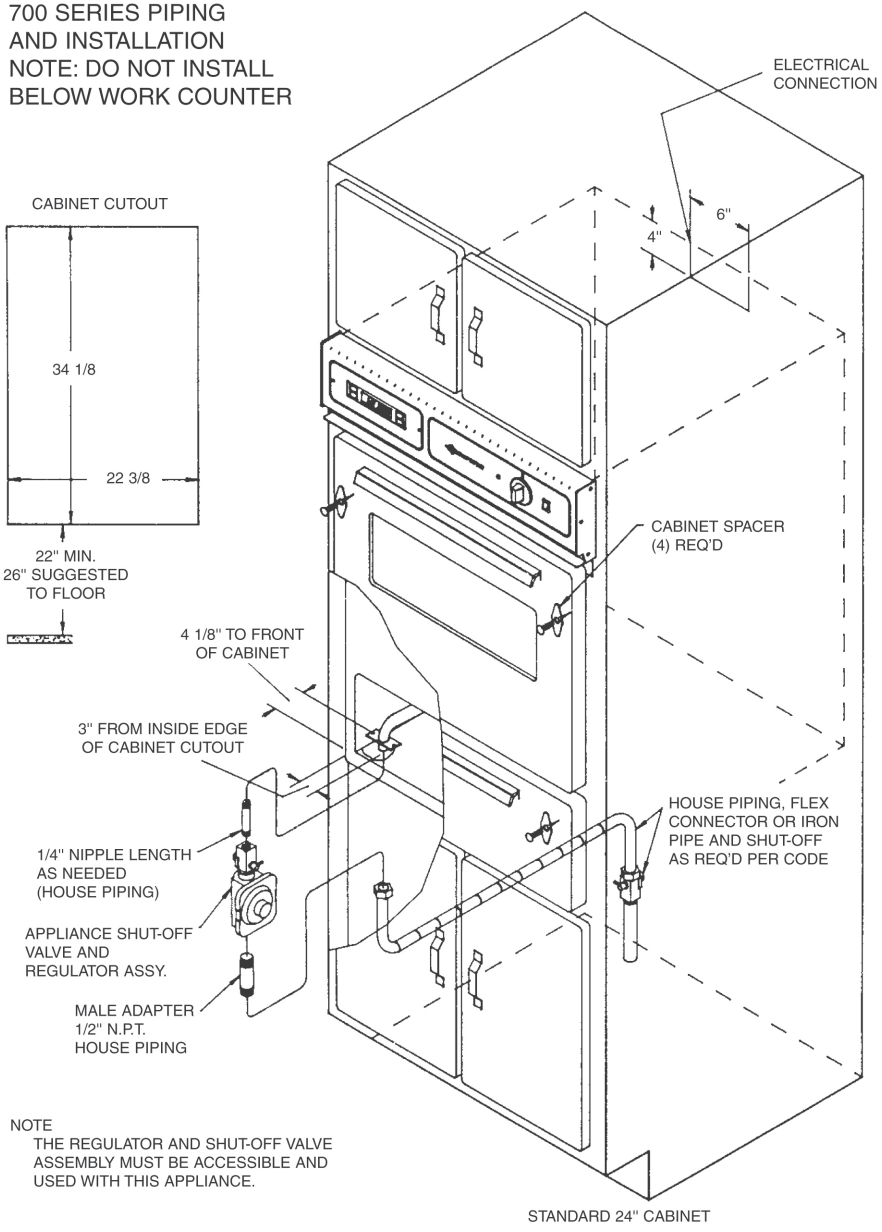
INSURE PROPER GROUND EXISTS BEFORE USE.

FLEXIBLE CONNECTORS - If the gas range/oven is connected to a gas supply with a metal flexible connector, move the range/oven with CAUTION for service or cleaning. Flexible connectors are not intended for repeated bending. Do not allow cleaners to make contact with flexible connectors.

The connector and its fittings are designed for use only on the original installation and are not to be reused for another appliance or at another location. Connectors must comply with ANSI Z21.24.

INSTALLATION INSTRUCTIONS BUILT-IN GAS AND ELECTRIC RECESSED WALL OVENS

700 SERIES PIPING
AND INSTALLATION
NOTE: DO NOT INSTALL
BELOW WORK COUNTER



IMPORTANT – Read and save these instructions.
Save for local electrical inspector's use.

READ THE IMPORTANT SAFEGUARDS AND ALL INSTRUCTIONS BEFORE USING THE APPLIANCE.

Remove all tape and packaging wrap before using the oven. If any glue remains, touch the residue with the sticky side of the tape already removed, or use a cloth soaked with rubbing alcohol. Use caution because rubbing alcohol is flammable. Rinse with warm water and wipe dry.

Destroy the carton and plastic bags after the range is unpacked. Children should not use packaging material for play. Cartons covered with rugs, bedspreads, or plastic sheets can become air-tight chambers. Remove all staples from the carton. Staples can cause severe cuts and destroy finishes if they come in contact with other appliances or furniture.

Be safety conscious. The preparation of food in an oven requires temperatures that could cause severe burns. Before using this new appliance, carefully read and follow all instructions.

WARNING **The California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)** requires the Governor of California to publish a list of substances known to the State of California to cause cancer or reproductive harm. In addition, businesses must warn customers of potential exposure to such substances.

Users of this appliance are hereby warned there may be some low level exposure to some of the listed substances including formaldehyde, benzene, soot and carbon monoxide. This is caused primarily from the incomplete combustion of natural gas or LP fuel. Properly adjusted burners will minimize incomplete combustion. Exposure to these substances can also be minimized by properly venting the burners, by opening a window or using a ventilating hood or fan.

Notice: Never keep pet birds in the kitchen. Birds have a very sensitive respiratory system. Fumes released during the self-cleaning cycle, overheated cooking oil, fat, margarine or overheated non-stick cookware may be harmful or fatal to birds.

PROPER INSTALLATION: Be sure your appliance is properly installed and grounded by a qualified technician in accordance with the National Fuel Gas ANSI Z223.1 - latest edition, and National Electrical Code ANSI/NFPA No. 70 - latest edition. Install only per installation instructions provided in the literature package for this range. Be sure leveling legs are in place at the bottom corners of the range. If necessary, raise or lower the leveling legs at the base of the range by turning clockwise or counterclockwise to insure a level range.

Ask your dealer to recommend a qualified technician and an authorized repair service. Have the technician familiarize you with the locations of the manual gas shut off valve and gas meter in the event it is necessary to shut off gas supply to the unit during an emergency.

WARNING **The following situations may cause serious bodily harm, death or property damage.**

- **TO REDUCE THE RISK OF TIPPING OF THE RANGE, THE RANGE MUST BE SECURED BY A PROPERLY INSTALLED ANTI-TIP BRACKET PROVIDED WITH THE RANGE. TO CHECK IF THE DEVICE IS INSTALLED AND ENGAGED PROPERLY, CAREFULLY TIP THE RANGE FORWARD. THE ANTI-TIP DEVICE SHOULD ENGAGE AND PREVENT THE RANGE FROM TIPPING OVER. REFER TO THE INSTALLATION INSTRUCTIONS PACKAGED WITH THE ANTI-TIP BRACKET FOR PROPER ANTI-TIP BRACKET INSTALLATION.**
- **Never leave children alone or unattended in the area where an appliance is in use.** They should never be allowed to sit or stand on any part of the appliance. Never leave the oven door open when the range is unattended.
- **Do not store items of interest to children in the cabinets above a range or on the backguard of a range.** Children climbing on the range to reach items could be seriously injured.

IMPORTANT SAFEGUARDS, Continued

- **Do not allow children to climb or play around the range.** The weight of a child on an open oven door may cause the range to tip, resulting in serious burns or other injury.

- **USER SERVICING: Do not repair or replace any part of the appliance unless it is specifically recommended in this owner's guide.** All other servicing should be done only by a qualified technician. This will reduce the risk of personal injury and damage to the range.

- **Storage in or on appliance:** Flammable materials should not be stored in an oven, near surface elements or in the broiler section. This includes paper, plastic and cloth items, such as cookbooks, plastic ware and towels, as well as flammable liquids. Do not use the oven for storage. Do not store explosives, such as aerosol cans, on or near the range.

- **Remove the oven door from any unused range if it is to be stored or discarded.**

- **Stepping, leaning or sitting on the doors or drawers of this range can result in serious injuries and cause damage to the range.**

⚠ CAUTION **The following situations could cause bodily injury or property damage.**

- **DO NOT TOUCH SURFACE BURNERS, AREAS NEAR THESE BURNERS, OVEN BURNERS OR INTERIOR SURFACES OF THE OVEN.** Both surface burners and oven burners may be hot even though the flame is not visible. Areas near surface burners may become hot enough to cause burns. During and after use, do not touch, or let clothing or other flammable materials touch these areas until they have had sufficient time to cool. Among these areas are the cooktop, surfaces facing the cooktop, the oven vent openings and surfaces near these openings, oven door and windows.

⚠ WARNING

- **NEVER use this appliance as a space heater to heat or warm the room.** Doing so may result in carbon monoxide poisoning and overheating of the oven.

- **Wear proper apparel.** Loose fitting or hanging garments should never be worn while using the appliance. Do not let clothing or other flammable materials contact surface burners or interior surfaces of the oven until they have had sufficient time to cool.

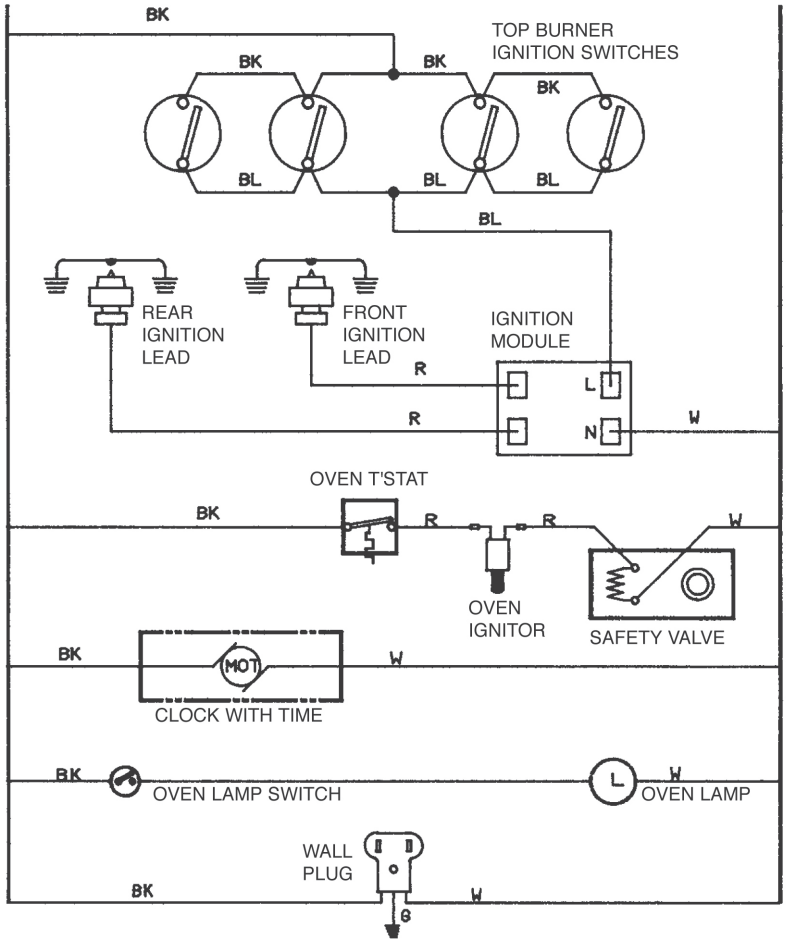
- **Never modify or alter the construction of the range.** Do not remove leveling legs, panels, wire covers, anti-tip brackets or any other permanent part of the product.

- **When heating fat or grease, watch it closely.** Fat or grease may catch fire if allowed to become too hot.

- **Do not use water or flour on grease fires.** Smother the fire with a pan lid, baking soda or use a dry chemical or foam-type extinguisher.

- **Operation of Surface Burners.** When burners are operated for the first time, a small amount of smoke may be generated due to tape residue or manufacturing lubrication. **THIS IS NOT DANGEROUS.** Operate the burners for about five minutes to rid the burners of all material before cooking.

WIRING DIAGRAM FOR GAS SURFACE UNITS AND WALL OVENS

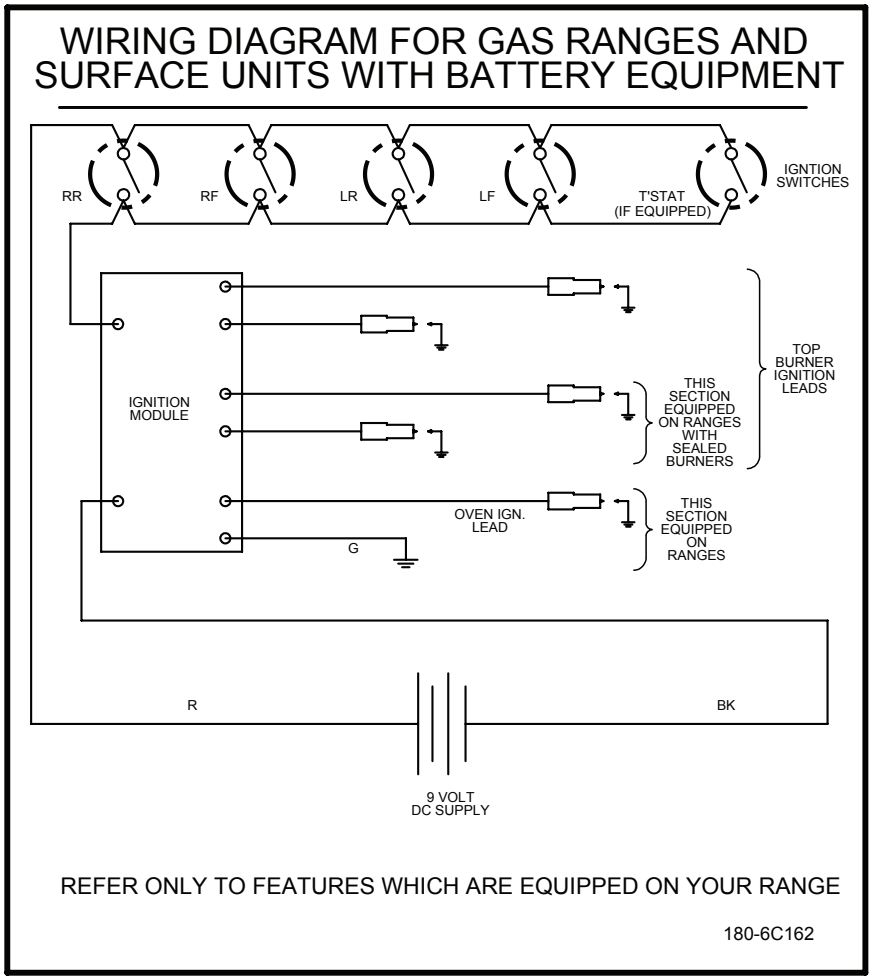


REFER ONLY TO FEATURES WHICH ARE EQUIPPED ON YOUR RANGE

WARNING-ELECTRICAL GROUNDING INSTRUCTIONS:

THIS APPLIANCE IS EQUIPPED WITH A THREE-PRONG GROUNDING PLUG FOR YOUR PROTECTION AGAINST SHOCK HAZARD AND SHOULD BE PLUGGED DIRECTLY INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THE PLUG.

180-6C89 REV. 1



TOP BURNER VALVES

Built-in top burner valves are operated by pressing the knob and turning it 90 degrees counter clockwise to the "LITE" position. This position is also the "HI" position where maximum gas flow is obtained. Hold the knob in this position until the burner successfully lights.

If the burner fails to light within 10 seconds, turn the knob back to the "OFF" position. Let the unit sit at least 5 minutes to allow unburned gas to dissipate before attempting to light the burner again. If the problem persists, refer to the troubleshooting guide in your instruction manual or contact a service technician.

Once the burner has successfully lit, turn the knob to adjust the flame size as needed for the amount of food being cooked, or the size of the utensil.

IMPORTANT SAFEGUARDS, Continued

- **Use only dry potholders.** Wet or damp potholders on hot surfaces could result in burns from steam. Do not let the potholder touch hot heating areas. Do not use a towel or other bulky cloth instead of a potholder.

- **Use proper flame size.** Adjust flame size so it does not extend beyond the edge of the utensil. The use of undersized utensils will expose a portion of the burner flame and may result in severe burns or direct contact and ignition of clothing. Also, proper relationship of utensil to burner will improve efficiency.

- **NEVER cover any slots, holes or passages in the oven bottom or cover an entire rack with materials such as aluminum foil.** Doing so blocks air flow through the oven and may cause carbon monoxide poisoning. Aluminum foil linings may also trap heat, causing a fire hazard. Refer to the cleaning section of this manual for more information on the use of aluminum foil.

- **Placement of oven racks:** Always place an oven rack in the desired location while the oven is cool. If a rack must be moved when the oven is hot, use potholders and grasp the rack with both hands to reposition. Do not let potholders contact hot oven walls. Remove all utensils from the rack before moving.

- **Do not heat unopened food containers.** Build-up of pressure may cause the container to burst and result in injury.

- **Keep the oven vent duct unobstructed.** The oven vent is located along the bottom of the backguard. Touching the surfaces in the vent area when the oven is being operated may cause severe burns. Also, do not place plastic or heat-sensitive items on or near the oven vents. These items could melt or ignite.

  The range requires fresh air for proper burner combustion. Do not block the flow of air around the base or beneath the lower front panel of the range.

- **Use care when opening oven door: Stand to the side of the oven when opening the oven door.** Slowly open the door to allow hot air or steam to escape before removing or replacing food.

- **Know *which* knob controls *each* burner.** Place a pan of food on the burner before turning it on, and turn the burner off before removing the pan.

  Always turn to the full LITE position when igniting top burners. Then adjust the flame size so it does not extend beyond the edge of the utensil.

- **Utensil handles should be turned inward and not extend over adjacent surface burners.** 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 burners.

- **Never leave the surface burners unattended.** Boilovers may cause smoking, greasy spillovers may catch fire or a pan which has boiled dry may melt.

IMPORTANT SAFEGUARDS, Continued

- **Do not place hands between the spring tension hinge and the oven door frame when you are removing the oven door.** You could pinch your fingers.

- **Do not use the broiler pan without its insert.** The broiler pan and its insert allow dripping fat or grease to drain and be kept away from the high heat of the broiler. Do not cover the insert with foil. Exposed fat or grease could ignite.

- **Do not touch a hot oven light bulb with a damp cloth.** A hot oven light bulb could break it touched with a damp cloth. Disconnect the electrical service cord or shut off the power to the oven before removing and replacing the bulb.

- **Allow parts to cool to room temperature before touching or removing them from the range.** When a surface burner is first turned off, the burner and grate are hot enough to cause burns.

- **Clean the range regularly to keep all parts free of fat or grease which could catch fire.** Pay particular attention to the area underneath each surface burner. Exhaust fan ventilating hoods and grease filters should be clean. Do not allow fat or grease to accumulate. Greasy deposits in the fan could catch fire. Refer to the hood manufacturer's instructions for cleaning.

- **An overhead ventilation hood that directs air in a downward manner toward the appliance is not to be installed in conjunction with this range.** Ventilation hoods that direct air toward a gas range may cause ignition or combustion problems with a gas cooking appliance resulting in personal injury or unintended operation.

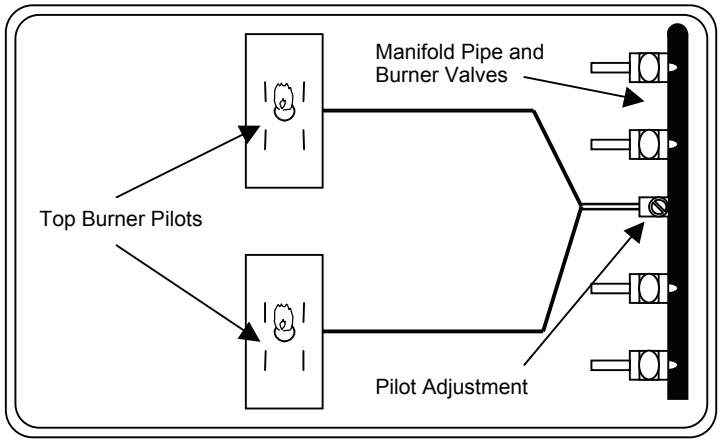
- **Glazed cooking utensils:** Only certain types of glass, glass/ceramic, ceramic, earthenware, or other glazed utensils are suitable for rangetop service without breaking, due to the sudden change in temperature. Check the manufacturer's recommendations for rangetop use.

- **Do not place plastic salt and pepper shakers, spoon holders or plastic wrappings on top of the range.** These items could melt or ignite. Potholders, towels or wooden spoons could catch fire if place too close to the flame.

- **Do not use a wok equipped with a metal ring that extends beyond the burner.** Because this ring traps heat, the burner and grate could be damaged. Also, the burner may not work properly, creating a carbon monoxide level above current health standards.

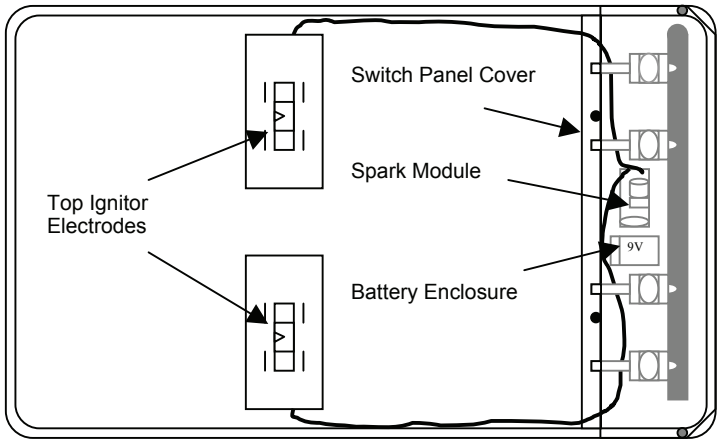
- **Do not clean the oven door gasket**. The door gasket is essential for a good seal. Care should be taken not to rub, damage or move the gasket.

- **This product is only to be used for the purpose of cooking food.** Do not use this cooking product in any way other than it is intended. It is not to be used to process laundry, ignite fireworks or pyrotechnic displays, or produce illegal substances banned by law, or perform any other non-cooking related function that may be deemed reckless in nature.



Built-In Top Unit with Pilots (Main Burners Not Shown)

On units with battery powered ignition, there are no top burner pilots. There are top ignitor electrodes in the same location as the top burner pilots. This ignition system requires one (1) 9 volt alkaline battery for operation. The battery is housed in an enclosure underneath the switch panel cover. It is recommended that you check and/or replace the battery at least once per year.



Built-In Top Unit with Battery Ignition (Main Burners Not Shown)

Access the battery for periodic servicing as follows:

- Remove the burner grates and top burner knobs from the unit.
- Raise the main top by lifting it by the front edge.
- Use a hex driver to remove four (4) screws from the switch panel cover.
- Gently lay the switch panel cover over to the left.
- Use a hex driver to remove one (1) screw from the battery enclosure.
- Check and/or replace the battery as recommended.
- Reinstall the battery enclosure.
- Reinstall the switch panel cover.
- Lower the main top and replace the grates and knobs.

GAS RECESSED WALL OVEN

MOUNTING THE BUILT-IN TOP UNIT

Place unit in cabinet opening with the valves on the right side. Raise the top by removing top burner valve knobs, and lifting upward on the front edge of the main top. Secure unit to top of cabinets with four No. 8 screws through holes provided in the top flanges of the burner box.

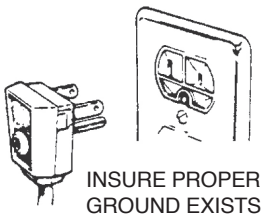
The gas pressure regulator supplied must be used with this unit. If it is necessary to convert this unit from use with natural gas to L.P., or L.P. to natural, see "To Convert and/or Adjust" in "Alignments and Adjustments" section. **The installation must conform with local codes. In the absence of local codes, the National Fuel Gas Code Z223.1 latest edition.**

A MANUAL GAS VALVE MUST BE INSTALLED IN AN ACCESSIBLE LOCATION IN THE GAS LINE EXTERNAL TO THE UNIT FOR THE PURPOSE OF TURNING ON OR SHUTTING OFF GAS TO THE UNIT.

WARNING

ELECTRICAL GROUNDING INSTRUCTIONS

This appliance is equipped with a three prong grounding plug for your protection against shock hazard and should be plugged directly into a properly grounded receptacle. Do not cut or remove the grounding prong from this plug.



INSURE PROPER GROUND EXISTS BEFORE USE.

Flexible Connectors - If the gas range/oven is connected to a gas supply with a metal flexible connector, move the range/oven with CAUTION for service or cleaning. Flexible connectors are not intended for repeated bending. Do not allow cleaners to make contact with flexible connectors.

The connector and its fittings are designed for use only on the original installation and are not to be reused for another appliance or at another location. Connectors must comply with ANSI Z21.24.

BUILT-IN TOP UNITS WITH NO POWER CORD

If your built-in top unit is not equipped with a power cord, the unit operates by standing pilot lights or a 9 volt battery powered ignition system. These units must be set up and maintained as outlined below.

Adjust the size of the top pilot flame until there is only a slight tip of yellow on the flame as described in the ALIGNMENTS AND ADJUSTMENTS section of the user manual. The adjustment screw is located on the side of the manifold pipe.

• Flexible Connectors: If the gas range/oven is connected to a gas supply with a metal flexible connector, move the range/oven with CAUTION for service or cleaning. Flexible connectors are not intended for repeated bending. Do not allow cleaners to make contact with flexible connectors.

The connector and its fittings are designed for use only on the original installation and are not to be reused for another appliance or at another location. Connectors must comply with ANSI Z21.24.

• It's good practice for each household to have an appropriate fire extinguisher for use in the event of a house fire.

• Disconnect the range from electrical supply before attempting to service or move it.

NOTE: The instructions appearing in this owner's guide are not meant to cover every possible condition and situation that may occur. Common sense and caution must be practiced when operating and maintaining any appliance.

WARNING

On sealed burner models never attempt to operate the surface burners without the cooktop, burner caps, and ignition wires firmly in place. There is a risk of fire and/or explosion which could result in personal injury or property loss.

ENERGY-SAVING IDEAS

Surface Cooking

Use lids when surface cooking. A lid traps steam and uses it to speed up the cooking process. If you have a pressure cooker or vegetable steamer, use it. You'll waste fewer vitamins, save time and cut energy costs.

Use medium-weight, flat bottomed pans that match the flame size. Choose pans made of metals that conduct heat well.

When cooking on a surface burner, use as little water as possible to reduce cooking time.

Oven Cooking

Preheat the oven only when a recipe tells you. Put roasts and casseroles into a cold oven; then turn on the oven.

Opening the oven door often to check on foods wastes energy.

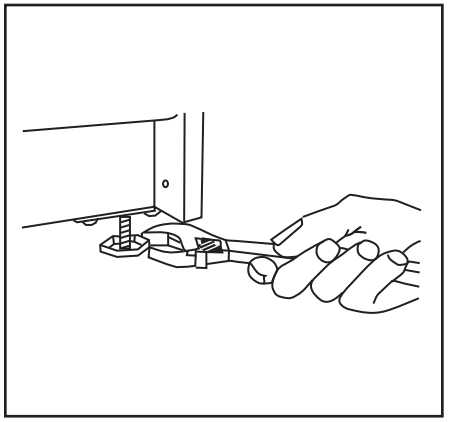
Use the oven to prepare complete meals. For instance, start a roast, add vegetables when the meat is half-cooked, and then warm rolls or dessert after the main dishes are cooked. Thaw frozen foods before cooking. Thawed food requires less cooking energy than frozen food.

Make it a habit to turn the oven off before removing the cooked food.

INSTALLATION INSTRUCTIONS

Be sure appliance is properly installed and grounded by a qualified technician.

It is the responsibility of the technician to make certain that your range is properly installed. Situations caused by improper installation are not covered under the warranty. Any expenses incurred due to such situations will not be paid by the manufacturer of the appliance.



WARNING To reduce the risk of tipping the appliance by abnormal usage or improper door loading, the appliance must be secured by properly installing the anti-tip device packed with the appliance. To check if the device is installed and engaged properly, carefully tip the range forward. The Anti-Tip device should engage and prevent the range from tipping over.

See instructions packaged with the anti-tip device. These are packaged within the oven during shipment of the range.

If this range is removed for any reason, service or cleaning, etc., it must be replaced as outlined in the installation instructions before placing the range back in operation.

Leveling a Free-Standing Range

All free-standing ranges must be level to obtain proper cooking results. The leveling legs should be screwed into the corner brackets. Place a pan or a measuring cup partially filled with water or spirit level on oven rack. Adjust leveling legs until the range is level. The top of the side panels should be level with countertop or work surface.

IMPORTANT: Be sure to keep the leg levelers. Leveling of the range is very important.

GAS CONNECTIONS (All Units)

NOTICE TO MASSACHUSETTS APPLIANCE DEALERS:

Be sure this document is included in all gas range appliances sold to consumers in the State of Massachusetts.

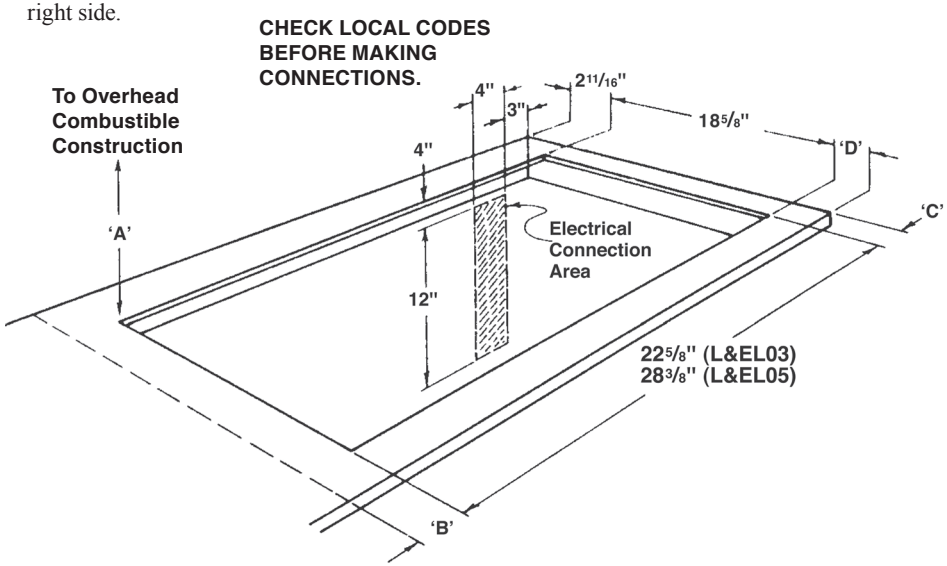
NOTICE: Massachusetts law requires the following:

- Appliances must be installed by a licensed plumber or gas fitter.
- Appliances must be connected with three (3) foot (36" maximum length) flexible gas connector and
- A "T" handle type manual gas valve in the gas supply line to the appliance.

INSTALLATION INSTRUCTIONS BUILT-IN GAS AND ELECTRIC SURFACE UNITS (Cooktops)

CABINET OPENING

Prepare the cabinet accurately so your unit will fit properly. Below are cabinet cutout dimensions. The dimensions are for the unit to be mounted so the knobs are on the right side.



"A"	30"	See CABINET PREPARATIONS Section.
"B"	2 11/16"	To Adjacent Vertical Combustible Surface.
"C"	1"	To Adjacent Vertical Combustible Surface.
"D"	2 5/8"	Minimum.

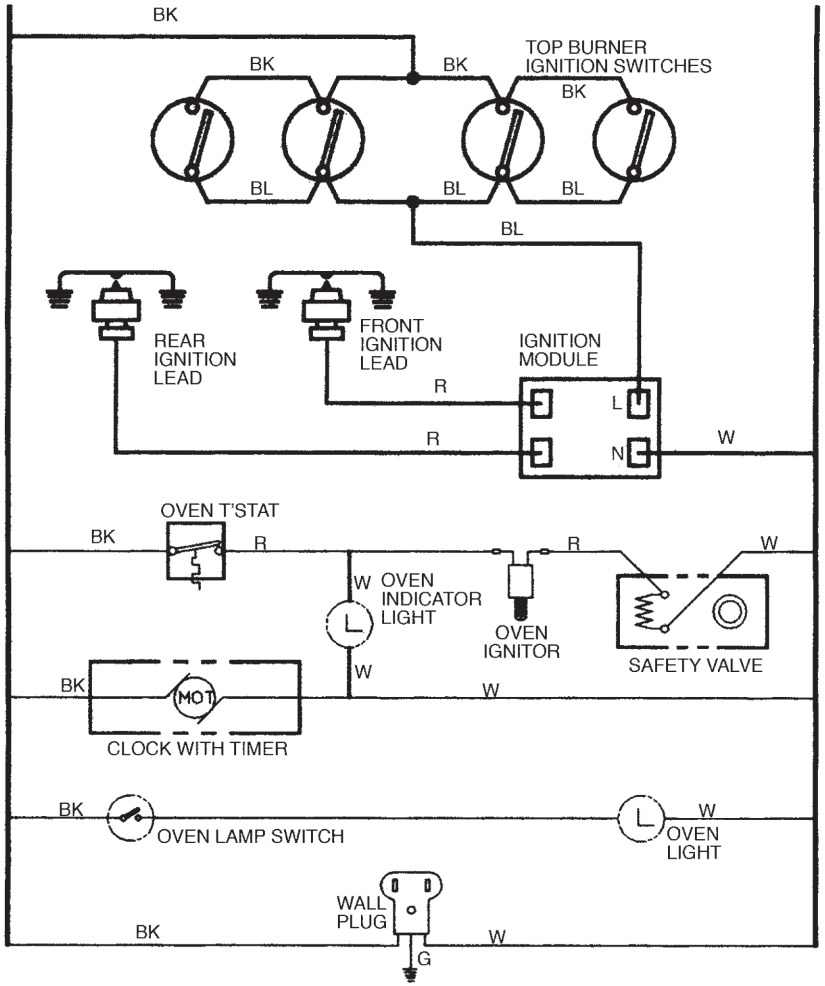
CAUTION To eliminate the hazard of reaching over the heated surface units, cabinet storage space located above the surface units should be avoided. If cabinet storage is to be provided, the hazard can be reduced by installing a range hood that projects horizontally a minimum of 5 inches beyond the bottom of the cabinets.

INSTALLATION

It is the responsibility of your installer to make certain that your range is properly installed. Situations caused by improper installation are not covered under the warranty. Any expenses incurred due to such situations will not be paid by the manufacturer of the appliance.

IMPORTANT – Read and save these instructions.
Save for local electrical inspector's use.

WIRING DIAGRAM FOR GAS RANGES WITH ELECTRICAL EQUIPMENT



REFER ONLY TO FEATURES WHICH ARE EQUIPPED ON YOUR RANGE

WARNING ELECTRICAL GROUNDING INSTRUCTIONS

THIS APPLIANCE IS EQUIPPED WITH A THREE-PRONG GROUNDING PLUG FOR YOUR PROTECTION AGAINST SHOCK HAZARD AND SHOULD BE PLUGGED DIRECTLY INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THE PLUG.

180-6C89 REV 3

GAS CONNECTIONS (All Units), Continued

Have the dealer where you purchase your new range install it or have him recommend a qualified installer. Installation must conform with local codes. In the absence of local codes, the installation must conform with the National Fuel Gas Code, ANSI Z223.1-Latest Edition in the U.S.A. or the CAN/CGA B149.1 or .2 Installation Codes in Canada. The range should be connected to the supply line with 1/2-inch black iron pipe or a certified flexible type stove connector. To prevent gas leaks, put an approved sealing compound, which is resistant to liquefied petroleum gases, on all threaded connections.

Important: Do not apply pressure directly to the range manifold pipe when tightening supply connections. The manifold pipe should be held securely at the pressure regulator to prevent twisting. Hold the pressure regulator with a wrench during the tightening of the connection, or the manifold pipe may be twisted and split, and cause a dangerous leak.

The installation of ranges designed for manufactured (mobile) home installation must conform with the Manufactured Construction and Safety, Title 24 CFR, Part 3280, [formerly the Federal standard for Mobile Home Construction and Safety, Title 24, HUD (Part 280)] in the U.S.A. or C.S.A. Standard CAN/CGA Z240.4.2 in Canada or, when such standards are not applicable with local codes.

The installation of ranges designed for recreational vehicle installation must conform with state or other codes or, in the absence of such codes, with the standard for recreational vehicles. ANSI A119.2.2–1982 in the U.S.A. or CAN/CGA Z240.4.2 in Canada. The installation of appliances designed for recreational park trailers must conform with state or other codes or, in the absence of such codes, with the standard for recreational park trailers, ANSI A119.5.

Note: Check all piping connections in the unit for leaks. Never use an open flame to check for gas leaks. Use a soap solution. It is not impossible for connections made at the factory to leak, due to vibration encountered in transportation. Make certain you have checked them all, and repair any connections that leak.

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.

The appliance must be isolated from the 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.

Electrical Connections

All electrical wiring and attachments are 60-cycle, 120 volts, 15 amp max. Your range is grounded with a three-conductor (three-prong plug) supply cord which will ground the range when plugged into a GROUNDED wall receptacle. If the backguard of the range has a clock or light, connect the cord from the backguard into the special terminal block located at the top of the main back directly under the backguard supply cord.

The appliance must be electrically grounded when installed in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA No. 70 Latest Edition in the U.S.A. or the Canadian Electrical Code, C22.1; Part 1 in Canada, if an external electrical source is utilized.

BACKGUARD INSTALLATION INSTRUCTIONS

Gas Ranges

A. Remove main top.

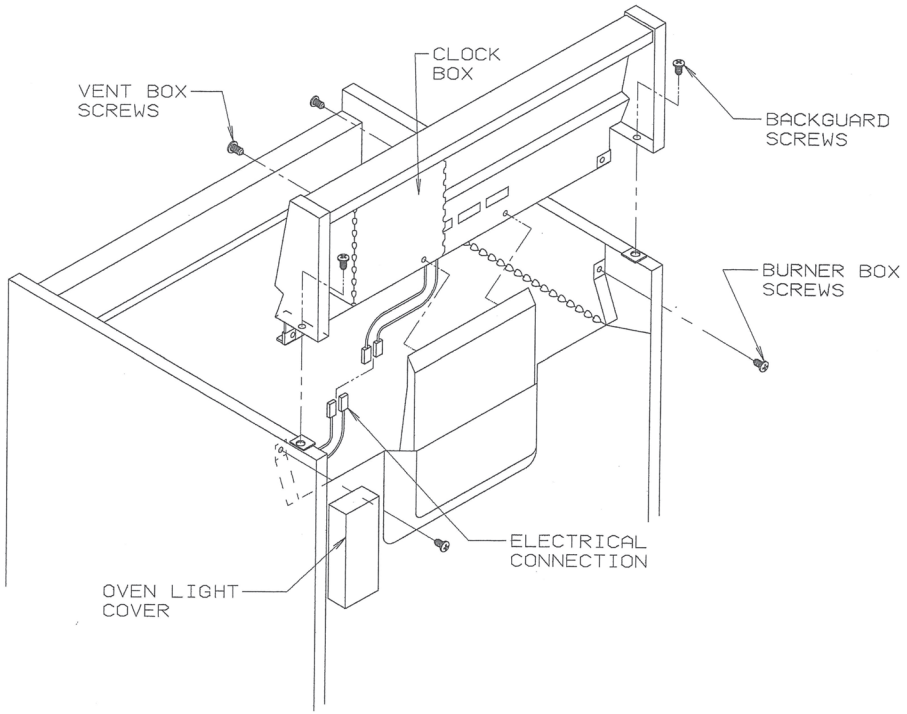
B. Place the backguard on top of side panels at the rear of range.

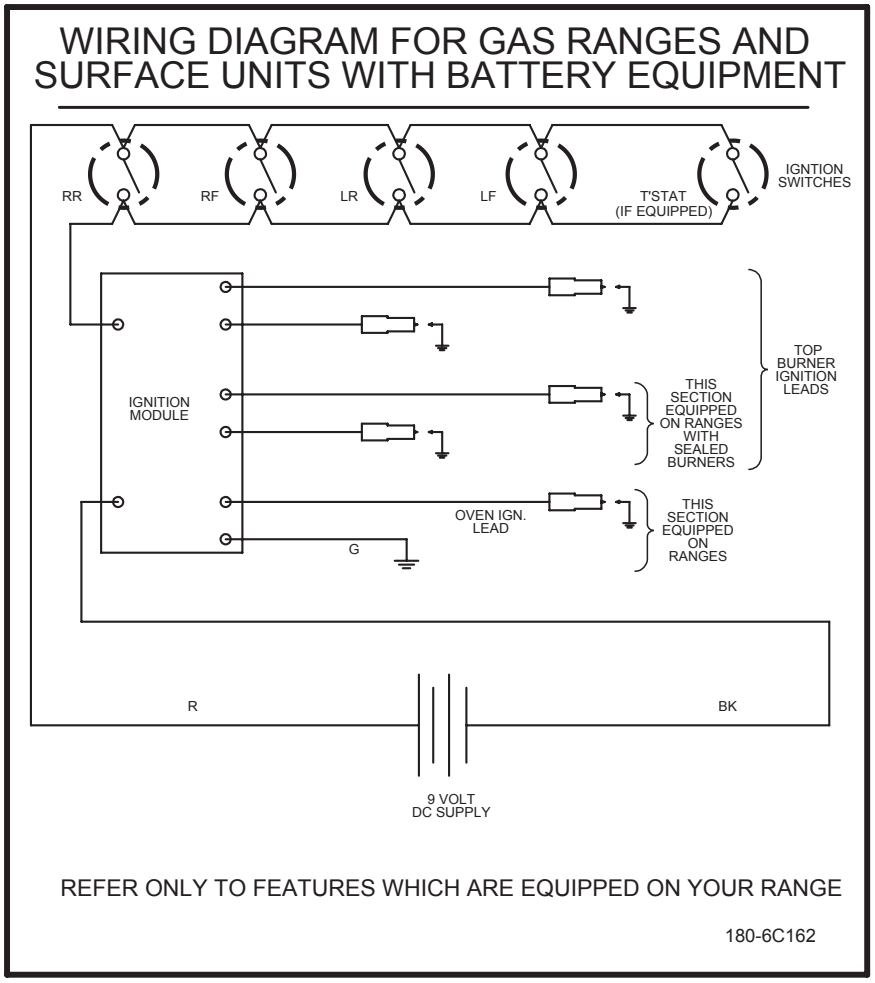
C. Attach and tighten the screws through the lower inside flange of the end caps and the clips on the side panels.

D. Attach and tighten the screws through the holes in the side flange of the burner box and into the clips at the bottom corners of the backguard.

E. Attach the lower edge of the backguard to the oven vent outlet.

F. Connect the clock wiring by plugging the two black wires together and the two white wires together.





Refer to this diagram for ranges equipped with battery spark ignition.

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	CORRECTION
1. Surface burner fails to light.	a. Pilot is out.	a. Relight pilot
	b. Range not connected to power supply (Solid State Ignition.	b. Connect range to wall outlet, check circuit breaker or fuse box.
	c. Burner incorrectly rated	c. Have serviceman rate burner.
	d. Clogged burner ports.	d. Clean ports in proper position on valve and burner hanger.
	e. Top burner not properly positioned.	e. Reposition burner.
2. Uneven flame.	a. Clogged burner ports.	a. Clean ports with straight pin;
	b. Uneven burner alignment.	b. Align burner.
3. Surface burner flames • Lifts of port. • Yellow in color. • Noisy when turned off.	a. Improper air gas mixture.	a. Have serviceman adjust burner -OR- Remove pan from burner. (Pan obstructs free air flow. Try again.)
4 Pilot goes out.	a. Burner and/or pilot incorrectly adjusted.	a. Have a serviceman adjust burner.
5. Oven does not light.	a. Pilot is out.	a. Relight pilot.
	b. Range not connected to power supply (Solid State Ignition).	b. Connect range to wall outlet. Check circuit breaker or fuse box.
	c. Moisture build-up in ceramic sleeve or electrode.	c. See Moisture in ALIGNMENTS AND ADJUSTMENTS section.
	d. Gas selector screw incorrectly set.	d. Check selector screw. **See step 4** in ALIGNMENTS AND ADJUSTMENTS section.
	e. Oven not set correctly.	e. Set indicator in MANUAL (MAN) or OFF position.
	f. Oven calibration or burner out of adjustment.	f. Have servicer adjust burner.
6. Oven Temperature seems inaccurate. • Food takes too long. • Food cooks too fast. • Food pale in color. • Over browning. • Over done on outside and underdone in center.	a. Oven was not preheated.	a. Preheat oven 10 minutes.
	b. Incorrect rack position.	b. Refer to Use of Oven Section.
	c. Incorrect use of aluminum foil	c. Refer to section on aluminum foil.
	d. Oven bottom incorrectly in place.	d. Replace oven bottom correctly.
	e. Used incorrect type of utensil.	e. Use shiny pans for cakes, cookies and biscuits. Use dull or glass utensils for pies and breads. Dark pans absorb heat and cause over-browning.
	f. Oven Calibration or burner out of adjustment.	f. Have serviceman calibrate oven and adjust burner.
7. Range clock and/or lights do not work.	a. Range not connected to power supply.	a. Connect range to outlet, connect backguard plug, check circuit breaker or fuse box.
	b. Burned out bulb.	b. Replace bulb.
	c. Defective switch, starter, or ballast. (Fluorescent bulb.)	c. Replace starter or ballast. Have serviceman replace switch.
	d. Clock defective, loose wiring or connection.	d. Have serviceman check clock assembly or loose connection.

WALL CLEARANCES

All units must be installed in accordance to minimum rear and side wall clearance and clearances extended vertically above cooking top which are stated on the serial plate. (The serial plate is located below the cooktop.)

ANY OPENINGS IN THE WALL BEHIND THE UNIT AND IN THE FLOOR UNDER THE UNIT MUST BE SEALED.

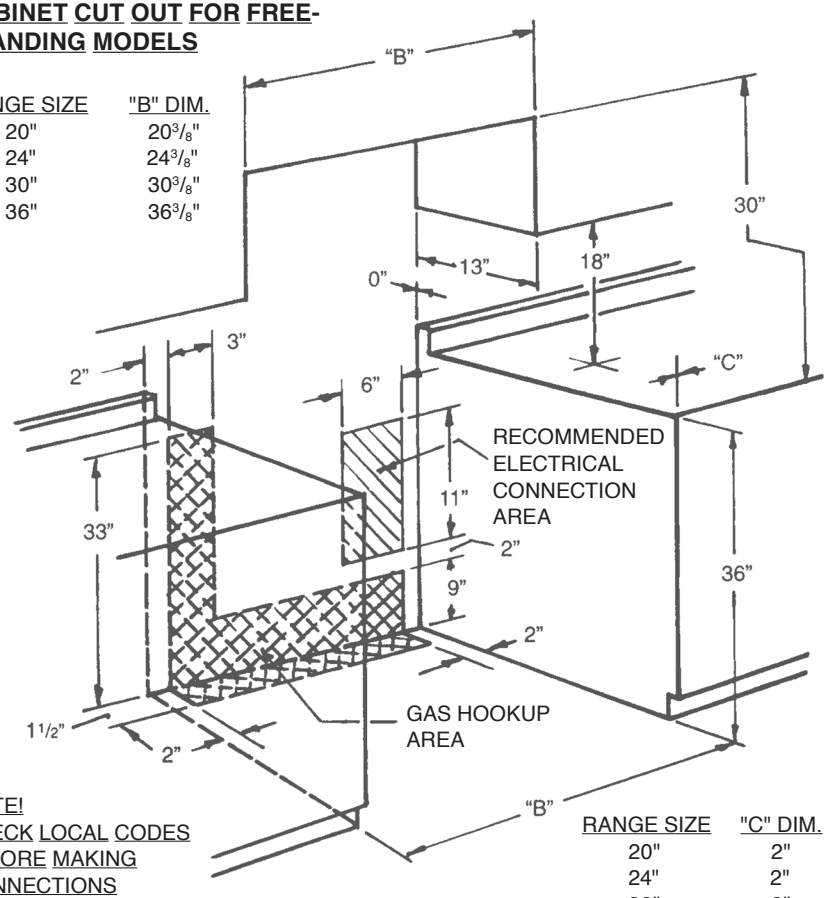
Note. Due to potential hazards it is recommended that storage cabinets not be installed above the cooking surface.

IN THE EVENT OVERHEAD CABINETS ARE INSTALLED, THE MAXIMUM DEPTH OF CABINETS INSTALLED ABOVE COOKING TOPS SHOULD BE 13".

FOR "ISLAND" CABINET INSTALLATION, THE MINIMUM ALLOWABLE HORIZONTAL CABINET SURFACE BEHIND THE APPLIANCE IS 1".

CABINET CUT OUT FOR FREE-STANDING MODELS

RANGE SIZE	"B" DIM.
20"	20 3/8"
24"	24 3/8"
30"	30 3/8"
36"	36 3/8"



NOTE!
CHECK LOCAL CODES BEFORE MAKING CONNECTIONS

RANGE SIZE	"C" DIM.
20"	2"
24"	2"
30"	3"
36"	3"

ALIGNMENTS AND ADJUSTMENTS

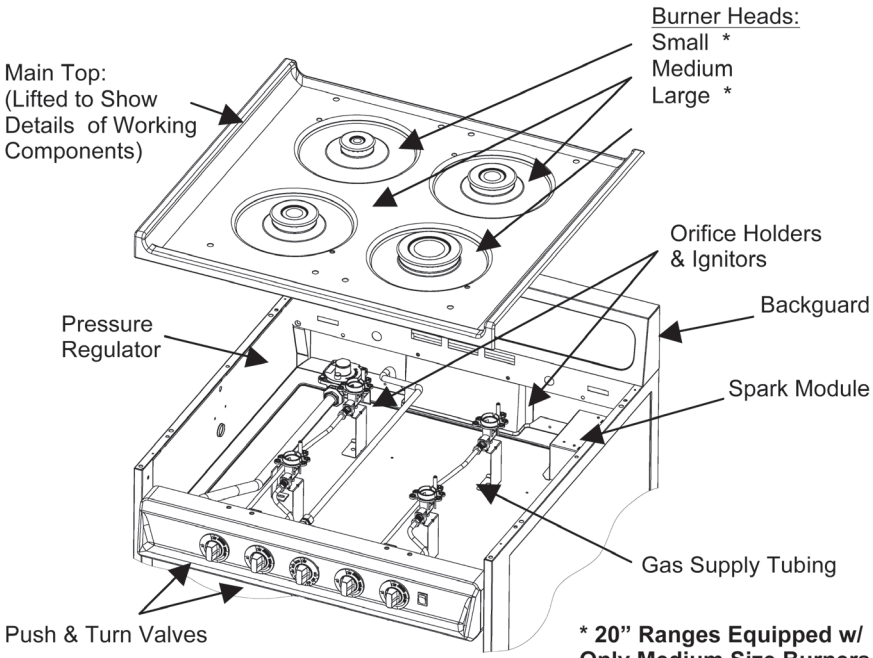
Installation

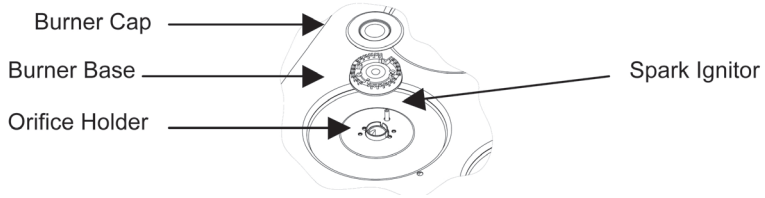
It is the responsibility of the installer to make certain that the range is properly adjusted at the time of installation. Situations caused by improper adjustments or improper installation are not covered under the warranty. Any expenses incurred due to such situations will not be paid by the manufacturer of the appliance.

Gas Range Conversion and Adjustment Guide

The range will either be set for use with Liquefied Petroleum (LP) or Natural Gas. The factory setting is indicated on the serial plate. When set for Natural Gas operation, the pressure regulator will regulate the pressure to 4 inches water column. When set for LP Gas operation, the pressure regulator will regulate the gas to 10 inches water column pressure.

On sealed burner models, access to adjust the pressure regulator can be gained by reaching behind the backguard. Burner orifices can be accessed directly beneath the liftoff burner heads. See illustrations.

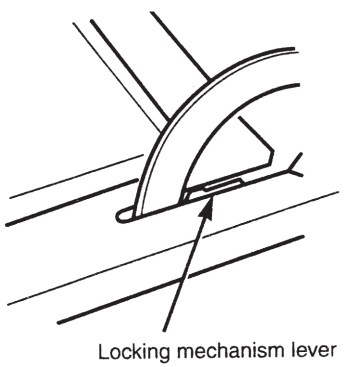


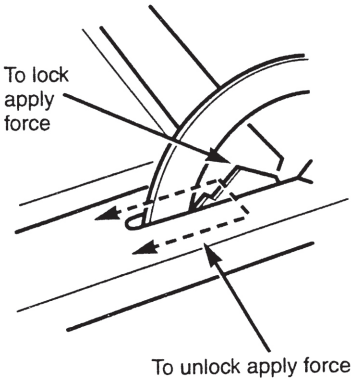


CLEANING THE RANGE, Continued

To prevent this, open the oven door for the first few seconds of initial oven heat-up. This will allow the moist air within the oven to escape without the forming of visible moisture on the range. The amount of moisture will depend upon the humidity of the air and water content of the food being cooked. Fogging and even dripping water will usually occur in geographic locations of high humidity.

LIFT-OFF DOORS





Lift-Off Oven Door (on some models)

The oven door is removable (on some models) but it is heavy. You may need help removing and replacing the door.

To remove the door, open it to the full open position. Raise the locking mechanism by applying force to the locking mechanism lever. Close the door until it stops against the locking mechanism. Grasp firmly on each side and lift the door straight up and off the hinges.

To replace the door, position the slots in the bottom of the door squarely over the hinges. Then lower the door slowly and evenly over both hinges at the same time.

Open the door to the full open position and press the locking mechanism back into its original position.

DO NOT ATTEMPT TO CLOSE THE DOOR UNTIL THIS STEP IS COMPLETE. THE HINGE OR DOOR COULD BE DAMAGED.

CLEANING THE RANGE, Continued

Range tops finished in brushed chrome should be wiped clean of spatters or soiling after each use. Clean with a paper towel or a damp cloth. For heavy spatters, use a mild detergent and water. Wipe dry with a soft cloth.

A light coat of oil or thin cooking oil should be applied periodically to the chrome top surface and underside. This will help prevent moisture from penetrating the chrome surface.

Products of combustion from the top pilots as well as certain atmospheric conditions can create an oxidation reaction on the underside of the top. This will appear as rust or in the form of a reddish brown deposit. This will NOT AFFECT THE LIFE OF THE TOP in comparison to the general life expectancy of the range itself.

The grate and main top should be removed to gain access to the surface burners. Remove the burner and let it soak in hot sudsy water. Most stains will then wipe off; if not, scrub with a strong but non-abrasive cleaning pad. Rinse the burner thoroughly.

It is very important that the burner be dry before replacing it in the range. A wet burner will not allow the gas to ignite properly. This could result in a build-up of gas which could result in an explosion or fire.

Aluminum Foil in Oven and Broiler

Aluminum foil when used improperly is a cause of many range fires. Make certain that vents or air openings aren't covered by the foil. If the vents located along the sides of the oven bottom are blocked, poor cooking will result.

Never cover a rack completely. A piece of foil slightly larger than the utensil can be placed on the rack beneath the utensil.

Remove and discard aluminum foil after each use. This will help prevent greases and spilled food from accumulating and becoming a fire hazard.

Cleaners and Cleaning Materials

Do not use harsh cleaners or degreasers on or around functional parts (valves, controls, etc., or aluminum tubing). This will damage or drastically reduce the life of the part.

Use only a mild solution of soap and water on **backguards, aluminum control panels and painted surfaces**. Never use harsh abrasives or cleaning powders that may scratch or mar the surface. Make sure the cleaners and cleaning materials are suitable for use on the area to be cleaned. Always keep cleaning materials in a safe place. Never use a sharp metal scraper to clean glass, porcelain, or painted surfaces.

Repair Parts

When repair parts are needed, contact the dealer from whom the range was purchased. In case your range was purchased from a source other than an appliance dealer you may prefer to contact the manufacturer at the address shown in this manual.

Moisture

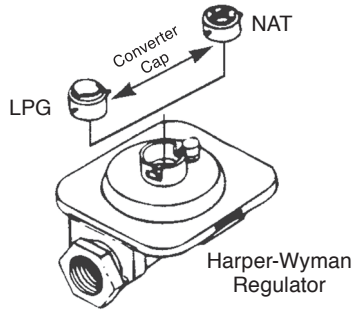
During the initial heat-up of your range, the heat mixing with the cooler air in the oven cavity may produce fogging of the door glass or a collection of water on the door.

To Convert and/or Adjust

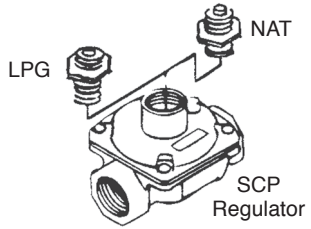
1. Convertible Pressure Regulator

The inlet pressure of the gas supply shall be in accordance with the nominal inlet pressure of the regulator used on the range or 1/2 psig maximum. The range should be tested by pressurizing the regulator with an inlet pressure at least 1 inch water column above the manufacturer's specified manifold pressure shown on the serial plate. The range will be equipped with one of the two types of regulators shown.

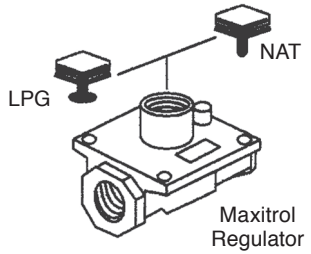
For a Harper-Wyman regulator, remove converter cap by inserting a coin into slot in top and twisting. Turn cap over and re-install.



On the SCP regulator, unscrew the converter using a 5/8" wrench. Turn the cap over and reinstall.



On the Maxitrol regulator, unscrew the brass converter cap using a 7/8" wrench. Turn the selector pin over and re-install.



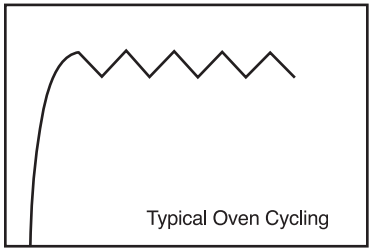
Note: What you read on the converter cap or plunger is the type of gas for which the regulator is set. If yours reads NAT, the regulator is set for natural gas. If yours reads LP, the regulator is set for LP.

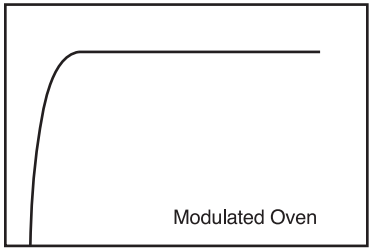
Modulated Control System

2. Operating Characteristics

Ranges with the modulated control system are designed to operate without requiring utility line electricity. Ignition for gas burners may be provided by either very small burner pilots or a battery operated sparking system.

This system is also designed to better regulate temperature control. Most ovens have a burner that cycles on then off to maintain an average temperature. Your modulated control range has an innovative thermostat that continually adjusts gas flow to hold a constant temperature. As seen in the figures below, the result is an oven temperature that remains steady throughout the entire cooking period.





Your range may set as one of the following options.

- The range is preset and equipped for natural gas.
- The range is preset equipped for LP (Propane) gas.

Kits to convert the range from natural gas to LP gas are available. See your dealer where you purchased the range for details.

These instructions are designed to help you better understand how to operate and maintain your gas range control system.

WARNING

Keep appliance area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

Do not obstruct the flow of air that is necessary for combustion and ventilation.

It is essential to maintain the gas pressure constantly at 10 inches water column pressure for ranges set for LP Gas; and 4 inches water column pressure for ranges set for Natural Gas to get proper burner performance.

Note: Burner rates specified on the rating plate of your range apply for elevations up to 2,000 feet above sea level. For locations where altitudes are higher than 2,000 feet above sea level, the BTU rated input should be reduced four percent for each 1,000 feet higher than 2,000 feet above sea level. If this adjustment is necessary, you should contact a qualified serviceman. DO NOT ATTEMPT TO SERVICE THE RANGE YOURSELF.

CLEANING THE RANGE

Always keep cleaning materials and chemicals in a safe place and away from children. Know what you are using. Make sure all parts of the range are COOL before cleaning. Be sure to replace the parts correctly.

Knobs

Pull forward on the knobs to remove them. Wash in a water solution with a mild detergent mix. Do not use an abrasive cleaner or any abrasive action. Abrasive action will scratch away the knob markings.

If the knobs become loose on the valve stem, spread the valve stem slightly with a small screwdriver.

Using Commercial Oven Cleaners

Commercial oven cleaners may be used on porcelain lined ovens; however, many cleaners are very strong, and it's essential to follow instructions carefully. Be sure to wear rubber gloves to protect your hands.

After using such cleaners, thoroughly rinse the oven with a solution of 1 tablespoon vinegar to 1 cup of water.

Oven cleaners can coat or damage the thermostat sensing device (the long tube in the oven) so that it will not respond to temperature accurately. If you use an oven cleaner, do not let it contact the sensing bulb, or any chrome, aluminum, or plastic part of the range. **Do not apply or allow the cleaner to come in contact with any parts or surfaces other than the oven interior.**

Grates, Main Tops, Surface Burners and Sealed Burners

The grates are made of porcelain coated steel. These materials can be cleaned at the sink with detergent or soap-filled scouring pads. Do not be alarmed when the grate loses its shining finish. The heat from the burners will cause the grates to lose their shining finish.

NOTE: Top burner grates must be seated in the proper position with the retainer lug in the hole provided for it. This will prevent the burner grate from rotating or tilting.

To remove the range top on standard models, first remove the grates. Lift up the front of the main top, then grasp the top at each side and pull it toward you. **On sealed burner models**, you must first remove the burner grates and burner heads.

When removing the burner head/s, the ignitor wire must be disconnected and secured in some fashion, paper clip, tape, etc., to keep it from falling through the access hole in the main top. Never immerse the ignitor in water. This can cause ignition problems. Clean the burner head with a non-abrasive soap filled scouring pad, rinse thoroughly and dry completely before reassembling. Burner heads can be dried in the oven at about 350 degrees Fahrenheit or in the dishwasher on the dry cycle. If there is a need to remove the main top, remove the four (4) attachment screws shown on page 13. After adjustment or cleaning, replace all parts to their original position. Care should be taken when connecting the ignitor wire as the ceramic ignitor base could be damaged. See page 13 for instructions.

The porcelain finish top can be cleaned with detergent and warm water. A mild glass wax can be used to shine the top.

OPTIONAL EQUIPMENT, continued

Background and Control Panel Features

WARNING Electrical Grounding Instructions: This Appliance must be properly grounded and must be connected as shown in figure 1, 2 or 3 on page 11. Do not alter wiring or electrical equipment.

The backguard equipment is optional, depending on model selection. The range you have purchased may or may not be equipped with the features that are illustrated in this section. The clocks have been placed into separate groups.

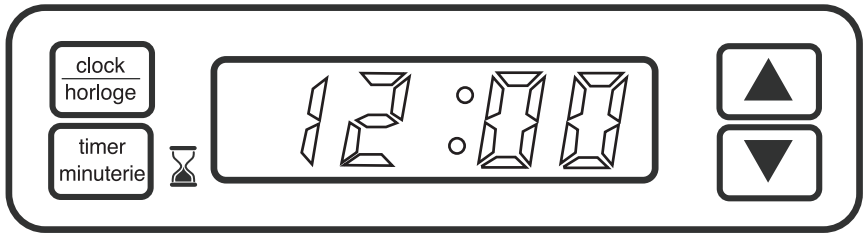
DIGITAL CLOCK WITH TIMER

To set "time of day" press **CLOCK**. Press ▲ or ▼ to set correct time.

To set "cook time" press **TIMER** (0:00 WILL APPEAR). Press ▲ to set minutes (12 HRS IS MAXIMUM TIMER SETTING). Then press **TIMER** again.
Colon starts blinking indicating timer is counting down.

To clear timer press **TIMER**.

To return to clock while timer is running, Press **CLOCK**.



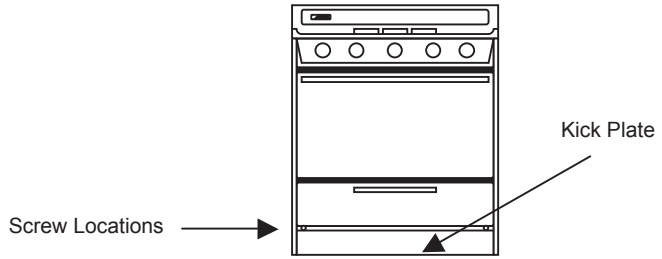
ALIGNMENTS AND ADJUSTMENT, Continued

4. Battery Replacement (If Equipped)

Ranges with the modulated battery spark standby pilot ignition system require two (2) 9 volt alkaline batteries for operation. These batteries are located within the "kick plate" enclosure just below the broiler drawer. It is recommended that you check and/or replace these batteries at least once per year.

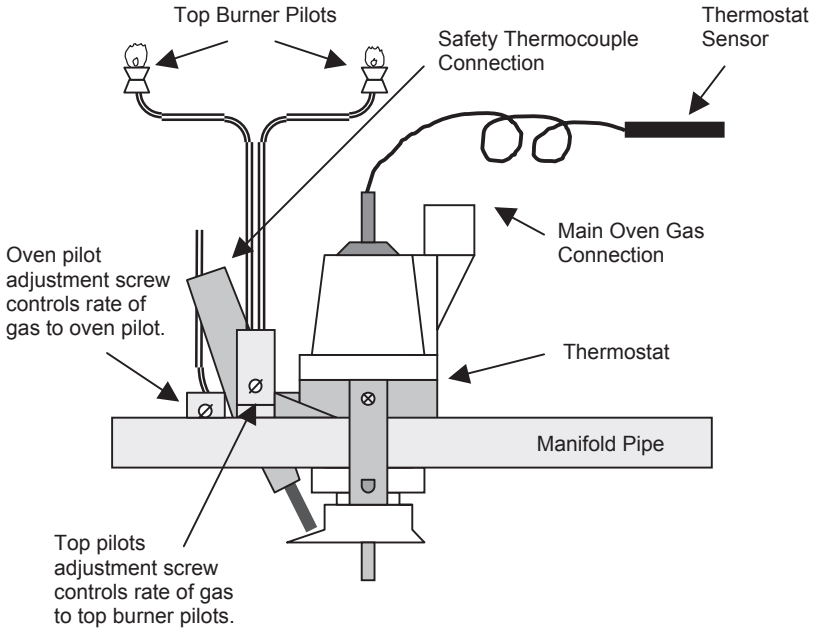
Access to the batteries is done as follows:

- Use a Phillips screwdriver to remove the two (2) kick plate screws.
- Gently lower the kick plate to reveal the batteries held in place by spring clips.
- Check and/or replace the batteries as recommended.
- Reinstall the kick plate with the two (2) Phillips screws.



4. Top Pilots (If Equipped)

The top burner pilots can be adjusted by a screw located on the pilot filter attached on the rear face of the manifold pipe. Adjust the pilot flame until there is only a slight tip of yellow on the flame. Pilots are constant burning. DO NOT BLOW OUT FLAME WITHOUT TURNING OFF PILOT ADJUSTMENT SCREW.



ALIGNMENTS AND ADJUSTMENT, Continued

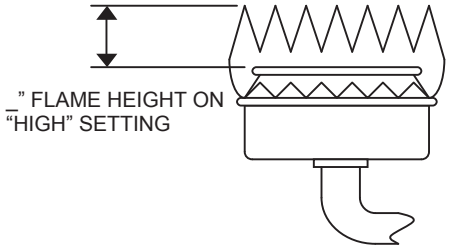
5. Top Burner Valve

Top burner valves have orifices that are dedicated to the type of fuel to be used. These orifices are not adjustable. They must be changed completely to convert from one gas to the other. DO NOT DISCARD THE UNUSED ORIFICES. They should be saved in order to convert the range back to its original fuel.

When converting the gas valves, the minimum flame adjustment screw must be adjusted through the center of the valve stem. You will need a 3/32" flat blade screw driver to make this adjustment. Hold the valve stem and turn the adjustment screw until the proper flame of approximately 1/8" is obtained.

Adjust the air shutter, which is located on the throat of each burner, to obtain the proper mixture of gas and air to create the proper sharp blue flame without a red or yellow tip. The properly adjusted flame is approximately 3/4" high and has three distinct cones; the kindling point, the dark blue center cone, and the outer mantel.

Note: "Full on" flame size illustrated. The flame height in the "Low" position should be approximately 1/8" high. REMOVE SHIPPING SCREWS FROM TOP BURNERS.



Standard Top Burner Valves

All top burner valves operate counterclockwise to open the valve and clockwise to close the valve. To ignite gas, depress and turn the valve knob 90 degrees to the left to the "LITE" position. You will feel a detent in the knob. This position is also the "HI" position where the maximum gas flow rate is obtained, and the burner should light automatically from the pilot flame. By turning the top burner knob past the "HI" position, the valve can be adjusted to many different heat settings which should be determined by the amount of food being cooked, the amount of liquid, or the size of the utensil.

Top Burners with Pilotless Electric Spark Ignition

Ranges equipped with electric or battery spark ignition will have the top ignitor electrodes in the same location as the familiar top burner standing pilots except for sealed burner models that employ an ignitor for each burner. (See page 13 in the Owner's Manual.) To ignite the burner, depress and turn the valve knob 90 degrees to the left to the "LITE" position. When a top burner knob is pressed, ALL electrodes will spark at a rate of approximately 2 _ pulses (sparks) per second. Continue to hold the knob depressed until gas ignites at the burner. Adjust the intensity of top burner heat in the same manner described above.

In the event of a power failure, the top burners of electric ignition ranges can be lit by holding a lighted match near the surface burner and turning on the surface burner.

OPTIONAL EQUIPMENT

Continuous Cleaning Feature

If your oven has the continuous cleaning feature, it will have a dull gray finish with white speckles that has been blended with a special catalytic material. (If the oven has a glossy finish, it is standard porcelain enamel without the continuous cleaning feature.)

Before Using Your Oven–Read These Instructions Carefully.

Using The Continuous Cleaning Oven

The catalytic finish will keep your oven presentably clean with some effort on your part. Any time the oven is in use, the catalytic action will be working to eliminate normal cooking spatters. Simply cook as you usually do. Average oven spatters should fade away. If a great deal of spattering occurs during cooking, a small amount may remain on the surface of the oven interior at the end of the cooking time. This is particularly true during a short cooking cycle. The longer the cooking cycle, the better the catalytic action.

Cleaning time depends on the type, size and amount of soil, and oven temperature. The cleaning time will vary from a few minutes to several hours. The oven will never get completely clean–it will appear "presentably clean," even though some stains or spatters may be present.

Heavy Spillovers–Unusual Stains

The continuous cleaning oven feature will make cleanups easy. However, some spills or food types are harder for the oven to clean without a little assistance. For heavy spillovers, such as from an overfilled fruit pie or casserole, put a cookie sheet or aluminum foil on the oven bottom. Be sure the foil does not cover the air openings, so do not extend foil beyond oven bottom.

If you should get a heavy spillover on the oven bottom:

1. Brush off heavy soil with a nylon brush or plastic pad. DO NOT USE paper toweling, cloths or sponge. Oven walls are porous and particles of these materials will rub off on walls. Rinse area well with clean water only. Do not allow insulation under oven bottom to become wet.
2. If spillovers harden before they can be wiped away, they may become either a brittle crust or a varnish-type coating. The brittle crusts will loosen and flake off in time. This process can be speeded up by GENTLY tapping crust with a wooden or plastic utensil and then brushing crust away.
3. Any remaining soil will gradually reduce with continued oven use at normal baking temperatures.

DO NOT USE ANY TYPE OF OVEN CLEANER, POWERED CLEANSERS, SOAP, DETERGENT OR PASTE ON ANY CONTINUOUS CLEANING SURFACE. ALSO, DO NOT USE ANY ABRASIVE MATERIALS, STEEL WOOL, SHARP INSTRUMENTS OR SCRAPERS. THEY WILL DAMAGE THE FINISH.

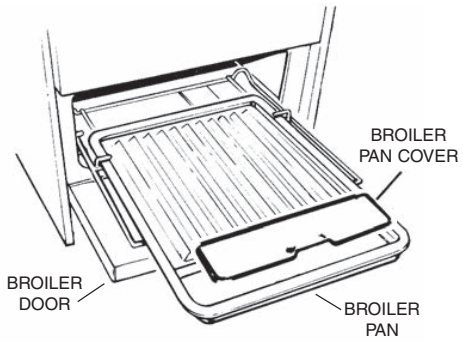
NOTE: Over a period of time, wear marks may appear on the embossed rack supports. This is normal and results from sliding the oven racks in and out of the oven. Wear marks will not interfere with the overall cleaning action of the oven.

To protect the oven bottom surface, place a piece of aluminum foil slightly larger than the baking dish on the rack below to catch any boilovers. It should not completely cover the rack as this would cause uneven heat in the oven. Aluminum foil should not be placed on the oven bottom.

If a spillover does occur on the oven bottom, allow the oven to cool first. You can clean the bottom with soap and water, a mild abrasive cleanser, soap-filler abrasive pads or an oven cleaner following package directions.

Broiler Compartment

The broiler pan is held in place by a wire broiler rack. To open the broiler, gently lift up and pull forward on the drop down broiler door. Pull the broiler pan forward. It will reach a temporary stop position. Continue to pull forward and the broiler pan will pull out to expose the entire broiler grill surface. Remove the broiler pan from the broiler rack by lifting up on the front of the broiler pan so it will clear the wire rack. Then pull forward slightly and use both hands to lift the pan free of the rack. To return the pan to the broiler rack, pull the wire rack out to the stop position. Insert the pan into the recessed section of the broiler rack. Slide the pan in place under the pan retainers. Push the pan to the rear of the broiler compartment. Close the broiler door.



Economy Broiler

Your range may be equipped with this optional broiler. The outward appearance of the range will be the same. To open the broiler door, lift handle up slightly to release the door catch and then lower the door. In the broiler section there are two positions of stamped-in oven rack guides and a broiler pan and grill. When you want to broil, take one of the oven racks and insert it into the rack guide positions. Next, place the broiler pan and grill on the oven rack for broiling.

Broiling

Preheat the broiler area and broil pan for a few minutes. No definite time can be given for broiling meats because of varying thickness, amounts of fat, and personal taste. **Be careful when handling hot broiler pans; be careful of the hot grease. Serious injury can result due to spillage of hot grease.** Never leave a dirty broil pan in place, always clean it and return it to the broiler assembly. Unauthorized broil pan substitutes should never be used. Excess fat should be trimmed to reduce the possibility of flame up. The meat could be ruined or fire could occur causing loss of property and bodily injury.

When broiling fatty meats, the lowest broil must be used, however, we recommend the lowest positions at all times.

Always broil with the oven door closed. When broiling is completed, turn the dial to OFF and remove the broil pan temporarily for cleaning.

Do not use the broiler area for storage of utensils.

ALIGNMENTS AND ADJUSTMENT, Continued

Top Burner Height

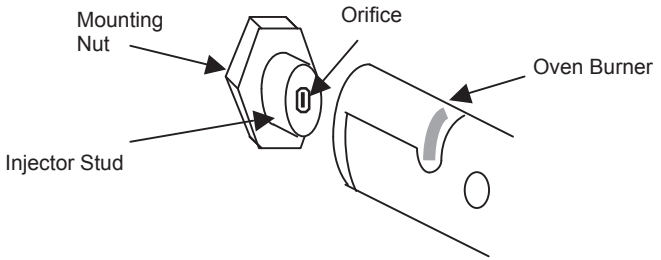
Make sure the top burners are properly positioned. The top of the burner head should be level with the surface of the main top. To check, lay a straight edge such as a 12-inch ruler across the burner bowl opening. The ruler should rest squarely on the top while in contact with the burner head.

If the burner is too high (make sure the burner is cool), push it down. Supply enough force with the palm of you hand to accomplish this adjustment. To raise, pull up on the burner support at the center of the support.

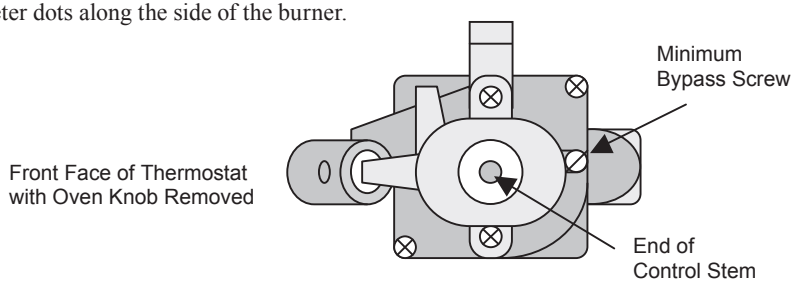
6. Oven Control (Thermostat)

The oven control has a flame safety device built into the body of the thermostat. Presence of a gas ignition source (pilot) is verified by a flame safety probe. This flame safety probe actuates the internal safety device to allow gas into the oven burner when the oven is turned on. If there is a loss of gas ignition during operation, the flame safety device will close off gas flow to the oven burner and pilot.

The oven burner orifice is located on a brass injector stud at the rear of the oven under the oven floor. This orifice is dedicated to the gas for which the oven is to be used. The orifice is not adjustable. It must be changed completely to convert from one gas to the other. DO NOT DISCARD THE UNUSED ORIFICE. It should be saved in order to convert the range back to its original fuel.



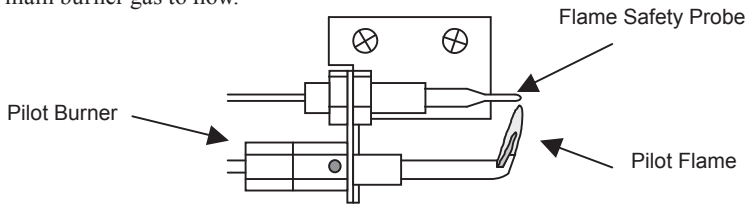
When converting the oven thermostat to LP (Propane) gas, the minimum bypass screw must be screwed in all the way until it tightens. To convert back to natural gas, turn the screw counterclockwise until the minimum burner flames appear as a row of 1/8" diameter dots along the side of the burner.



ALIGNMENTS AND ADJUSTMENT, Continued

Ovens With Constant Pilot

The oven pilot is located along the left hand side of the oven burner. It is fastened under the flame safety probe. The flame of the oven pilot ignites main burner gas when the oven is turned on. If the pilot flame is not present, the flame safety device will not allow pilot gas or main burner gas to flow.



Pilot flame size is set by the adjustment screw located along the side of the thermostat. The outer tip of the flame should just barely reach the underside of the end of the flame safety probe. The pilot screw must be adjusted if the range is converted to LP gas.

Light the oven pilot as follows:

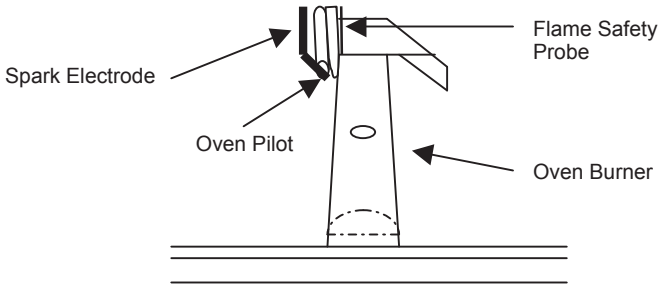
- Fully press in and hold the oven control knob to allow pilot gas to flow to the pilot burner. It will take 30 to 60 seconds to bleed all the air out of the pilot supply line.
- While pressing in the oven control knob, place a lit match or lighter under the pilot burner to light it.
- Once the pilot burner is lit, continue to hold in the oven control knob for at least 10 seconds.
- If the pilot flame extinguishes when the oven control knob is released, repeat the above procedure.
- Adjust the size of the oven pilot flame if needed.

ALWAYS LIGHT THE OVEN PILOT WITH ALL CONTROL KNOBS IN THE "OFF" POSITION.

⚠ CAUTION **Make certain the oven is cool when manually lighting oven pilot.**

Ovens with Standby Pilot Battery Spark Ignition: Free-Standing Ranges

Ranges equipped with the battery ignition system have an electrode fastened on the left hand side of the oven pilot and flame safety probe. In these models, the oven pilot is used as an ignitor instead of a permanent pilot flame.



When baking cakes in glass baking dishes, lower the oven temperature 25ºF to prevent browning of the bottom and sides before the top becomes brown.

Also when using glass bakeware it would be better to increase the preheat time to have exact stabilization of the oven's temperature. To do so allow 20 minutes time for temperatures up to 350ºF and 30 minutes for temperatures up to 425ºF. Avoid opening the door as much as possible.

Hot Oven Restart

If you turn off the oven but then decide to turn it back on before it has cooled to room temperature, the burner may not light properly. This is due to the thermostat still sensing a heated oven and not allowing the maximum gas flow rate into the burner. Turn the control knob all the way to the "BROIL" position to relight the burner. After the burner lights, you may adjust the oven control to the desired temperature.

Oven Racks

The oven racks should be arranged before the oven knob is turned to an "ON" position. Place the racks so the food is centered in the oven, not the rack.

When more than one utensil is used, be sure to stagger them allowing space between each one. Do not allow the utensil to touch any part of the oven, especially the glass window. It is best to use two racks and place food so one utensil is not directly over another.

Rack Removal

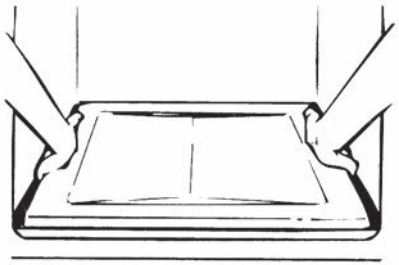
Pull the oven rack forward and lift up on the front of the rack so it will clear the rack keeper.

To replace the oven rack, guide the angled rear portion of the rack under the rack keeper and slide the rack to the rear.

Never cover the oven racks with aluminum foil. Such practices will trap heat and cause intense heat in spots which usually give poor results. It can damage the porcelain finish as well as glass windows in oven doors (if equipped). 11-97

Removable Oven Bottom

First remove the racks from the oven. The oven bottom lifts from the rear. Grasp each side of the oven bottom and lift upward from the rear until the bottom is clear–lift it to remove from the front.



NOTE: If the oven bottom is replaced incorrectly it may warp and cause undesirable baking results.

The oven bottom has a porcelain enamel finish. To make cleaning easier, protect the oven bottom from excessive spillovers. This is particularly important when baking a fruit pie or other foods with high acid content. Hot fruit fillings or foods that are acidic in content, such as milk, tomato or sauerkraut, and sauces with vinegar or lemon juice, may cause pitting and damage to the porcelain enamel surface.

OPERATION OF RANGE

Using Your Range

The range may have only part of the features described within this manual. If your range has some features which are not covered in this manual, these features will be covered in other enclosed literature.

Top Burner Operation

Note: When boiling food, the highest temperature that can be reached is the boiling point. When the liquid starts to boil, decrease the size of the flame until you reach the minimum flame that will hold the boil. This will save gas. It will also lessen the possibility of burning food or boiling food over, and help to keep your kitchen cooler. Use stable utensils with flat bottoms and always place the utensil on the burner grate before lighting the burner. Unstable or rounded bottom utensils will not contact properly with the grate and will affect the cooking efficiency. Select utensils large enough to avoid spillovers, but remember, over-sized utensils (diameters exceeding 8 1/2") can cause the range finish to discolor, craze or chip. Damage caused by oversized utensils, such as those sometimes used in canning, are not covered by the warranty. The finish has been manufactured to a commercially acceptable standard and its condition is dependent upon the care of the user.

Top Burner Valves

The top burner flame size should be adjusted so that is does not extend beyond the edge of the cooking utensil. As a matter of safety, it's urged that you comply with these instructions.

A high flame on a surface burner is both inefficient and unsafe. The flame should always be adjusted so that it is no larger than the bottom of the pan. Fluctuations in flame size could be caused by pressure variations, improperly positioned burners, damage or debris.

Preheating

Heat the oven to the desired temperature before placing the food in the oven. Preheat for 10 to 12 minutes.

Opening Oven Door

Let hot air or steam escape before removing or replacing food.

Arranging Oven Racks

The oven racks should be arranged before the oven is turned "ON." Place the racks so the food is centered in the oven..

Temperature Selection

It is important to select to proper temperature setting. Never set the dial to a higher degree than needed with the intention of lowering the setting at a later time. This will not speed up the action. It can cause the oven to cycle slower and cause the temperatures to vary so that cooking results may be unsatisfactory. Imagine that the control has three sections: Low Temperature, Bake and Broil.

Baking

When baking follow the recipe instructions. Use correct ingredients, measure them carefully, and use the correct type and size utensil suggested in the recipe. Remember to preheat properly. Avoid frequent opening of the oven door during preheating and baking.

ALIGNMENTS AND ADJUSTMENT, Continued

Oven Ignition With Constant Pilot

On ovens with constant pilot ignition, lightly press in the oven control knob and turn it counter clockwise to the desired temperature setting. **If you press the knob in too far to the pilot lighting position, the knob will not turn**. Gently let up on the knob, and the thermostat shaft will release its safety key to let you rotate the control.

Oven With Standby Pilot Battery Spark Ignition

On ovens with battery spark ignition, turn the oven control knob counterclockwise to the "STANDBY" position. Fully press in the oven control knob and hold it pressed in for 10 seconds. Pushing in the oven control knob will start all electrodes (top electrodes included) at a rate of approximately 2 _ pulses per second. While pressing the knob gas will be introduced at the oven pilot to be lit for use as an oven ignitor.

If you are using the oven for the first time or the oven has not been used in several days, it may take multiple attempts to successfully light the "STANDBY" ignitor pilot. If the ignitor pilot will not stay lit after 5 attempts, contact an authorized service technician.

Once the "STANDBY" oven pilot has been lit, lightly press in the oven control knob and turn it counterclockwise to the desired temperature setting. **If you press the knob in too far to the ignitor lighting position, the knob will not turn.** Gently let up on the knob, and the thermostat shaft will release its safety key to let you rotate the control.

When finished cooking, you may turn the oven control knob back to the "STANDBY" position. This will turn off the main oven burner, but will keep the oven pilot lit and ready. If desired, you may turn the knob all the way back to the "OFF" position to shut off the oven pilot ignitor. **If you turn the knob back to the "OFF" position, you must repeat the battery spark and pilot starting sequence above to use the oven.**

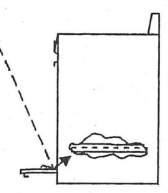
If the oven pilot does not ignite and maintain the flame, check for the following:

1. **The pilot burner has gone out.** Relight the oven pilot.
2. **The pilot will not keep the flame safety probe heated.** Adjust the size of the pilot flame. Or, the thermocouple connection at the thermostat may need to be tightened.
3. **The flame safety probe may not be properly located.** Locate the probe directly over the pilot burner. On spark ignition ovens, the end of the flame safety probe must very close to the side of the burner right in front of the flame ports.
4. **The pilot burner is not in its proper position.** Make sure the rear of the burner is seated on the injector elbow and the front is bolted onto the burner support.
5. **The spark electrode is defective.** Contact an authorized service technician.

If the batteries have grown weak and you need to use the oven before you are able to replace with fresh batteries, the oven can be lit manually. Turn the knob to "STANDBY" and light the oven pilot as described in the Oven Pilot section.

Flame Indication

On ovens equipped with battery spark ignition, you may be uncertain if the oven burner successfully lit. For your convenience, there is an angled reflector inside the broiler drawer panel. With the burner preheating, you should see a glowing blue reflection of the oven burner's flames.
Note: You may have to move the broiler pan to the low position to see reflection of the flames properly.



⚠ CAUTION IF THE OVEN BURNER DOES NOT IGNITE WITHIN 20 TO 60 SECONDS AFTER THE PILOT IS LIGHTED, TURN THE OVEN TEMPERATURE CONTROL TO OFF AND WAIT FOR POWER TO BE RESTORED. DO NOT ATTEMPT TO RELIGHT THE PILOT AGAIN.

If the oven does not function properly when the power is restored, or at any other time, call a serviceman to determine the source of the problem. DO NOT ATTEMPT TO SERVICE THE RANGE YOURSELF.

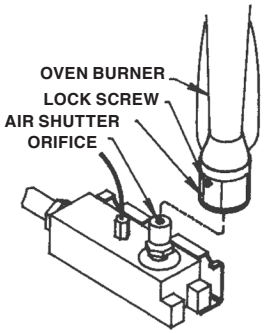
NEVER LEAVE THE CONTROL KNOBS IN ANY POSITION OTHER THAN "OFF" IF THE IGNITORS OR BURNERS AREN'T WORKING PROPERLY.

7. Automatic Oven Safety Valve

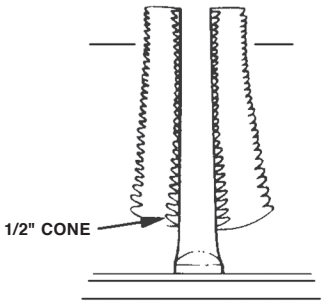
The orifice hood on the oven safety valve regulates the flow of gas to the oven burner. This valve adjusts in the same manner as the top burner valves and is located at the base of the oven burner in the broiler compartment of the range. To gain access, simply remove the broiler section. When set for LP, the orifice hood is screwed snugly on the valve. To adjust for use on Natural Gas, unscrew the orifice hood until the proper flow of gas is obtained.

8. Oven Burner Air Shutter Adjustment

The oven burner flame should be a clean, blue flame with distinct inner cones approximately 1/2 inch long. A soft, lazy flame with indistinct comes means too much gas or not enough air. A noisy lifting flame means too much air. If adjustments are necessary you must first loosen the lock screw located at the top of the air shutter, then rotate the air shutter to the correct setting, and retighten screw.



OVEN SAFETY VALVE



OVEN BURNER

Oven burner flame can be checked as follows (without burner baffle in place):

- To correct a yellow flame-Increase size of air shutter opening.
- To correct a lifting, but distinct, blue flame-Decrease size of air shutter opening.

The air shutter should be set approximately 2/3 open for natural gas, and approximately full open on LP gas.

The oven burner air shutter adjustment is the same on ranges with a gas pilot or electric ignition.

Oven with Pilotless Electric Ignition: Glow Bar Ignition System (-7 Models)

System Operation

The glow-bar ignition system consists of three main components:

1. The thermostat (or range control).
2. The glow-bar ignitor.
3. The oven gas valve (also called the safety valve).

The thermostat, ignitor and gas valve are wired in series.

When the thermostat knob is turned to a selected setting, this closes a set of electrical contacts in the thermostat applying power to the series circuit.

With power applied, the ignitor begins to heat. The electrical resistance of the ignitor will decrease as the surface temperature of the ignitor increases.

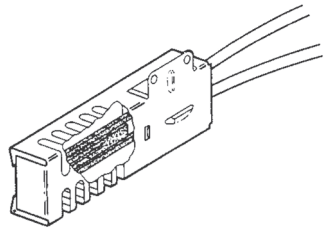
Current flowing in the circuit increases in proportion to the drop in ignitor resistance.

The NORTON ignitor limits the operating current flow in the circuit to 3.3 to 3.6 amps.

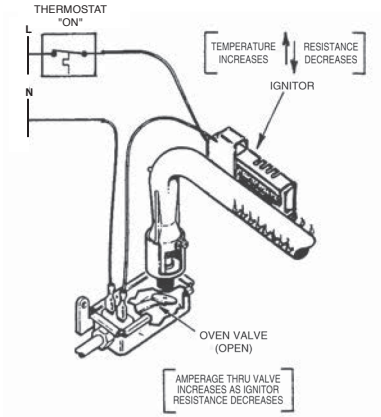
When the current has risen high enough to open the valve, the surface temperature of the ignitor is between 1800 to 2500 degrees F.

As gas flows out of the valve and into the burner a portion of the gas flows across the hot igniter and ignition occurs.

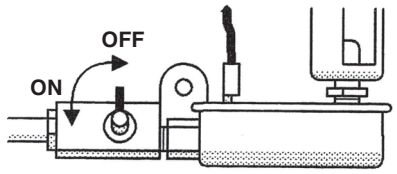
The ignitor will remain energized when the burner is lit. Once the oven reaches the selected temperature, the thermostat contacts will open and remove power from the ignitor/valve circuit. The valve will then close after a few seconds and the burner flame will go out.



NORTON GLOWBAR



SERIES IGNITOR/VALVE CIRCUIT



SAFETY VALVE & SHUT-OFF

Models with glow bar oven ignition have a manual shut-off valve located at the safety valve in the rear of the broiler area. To access this valve, remove the broiler pan and boiler rack. Turn the handle on the valve fully clockwise to close off gas. If the ignitor glows and the oven won't come on, check this valve.