

## Gas Range Fact Sheet

A natural gas range is a wise choice for efficiency; it will cook nearly two meals with the same amount of primary energy\* it takes to cook one meal electrically. The gas burner's instant response and visible flame, and the oven's reliable baking results make the gas range a popular choice. New gas ovens are as much as 30% larger than older gas ovens and larger than electric ovens.

When selecting your gas range, consider a variety of styles, features and accessories and be sure the one you choose has the *American Gas Association's Blue Star Certification Seal*. This tells you the range design meets safety standards set by the American National Standards Institute.

### STYLES AND SIZES

#### Free-standing

This self-contained range rests on the floor. It can have a second oven—conventional, convection or microwave—on top or beside the main oven.

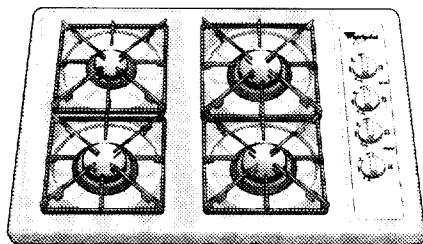
#### Conventional

May have a single oven and low broiler or an oven and broiler in the same compartment. The cooking surface has four to six burners, one or two of which may convert to a griddle surface. Available in 20- to 40-inch widths.

#### Double oven

A cooktop and two ovens, one above and one below the cooking surface.

Models which combine a freestanding gas range with an eye-level microwave oven save counter space and increase cooking flexibility. Available in 20- to 36-inch widths.



#### Slide-in

This freestanding range with unfinished sides fits tightly between two base cabinets. If one side is visible, a side panel is installed to give a finished look. Available in 20- to 36-inch widths.

#### Drop-in

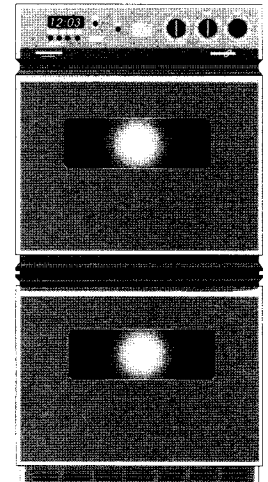
Permanently installed in kitchen base cabinets, this range consists of surface burners, oven and broiler. Available in 30-inch width.

#### Built-in oven and cooktop

The oven and cooktop are separate, so each can be built into the space that best suits your kitchen design. Use the area below the cooktop for storage or a dishwasher. Cooktops are available in 20- to 36-inch widths.

#### Commercial range

Comes complete with high-output burners, over-sized ovens and a wide selection of options. Must be properly vented.



### USING YOUR GAS RANGE

#### Surface burners

Gas surface burners provide an infinite selection of cooking temperatures from "very low" for melting to "high" for quick boiling or deep frying. Burners light automatically from a pilotless electronic ignition system or a standing pilot. To use burners, turn the control knob until the burner ignites; then adjust flame size. Some burners "click" to indicate flame settings. A properly adjusted gas burner flame is blue and has a sharply defined inner core. It supplies instant heat with no leftover heat when the burner is turned "off."

#### When using your surface burners

- Place pan on the burner **before** you turn on the flame. Turn control to the "light" position; adjust flame. The proper flame size will depend on the utensil size and material, what you are cooking and whether you are cooking with liquid. Liquid causes heat to be more evenly distributed, so starting flame can be a little higher.
- As a general rule, use a full flame for the instant heat needed to bring foods to a rolling boil. Then adjust flame to fit the utensil; flame should hug pan bottom but not lick up the sides. Reduce flame to "simmer" or "low" to keep foods gently boiling. A rolling boil does not cook faster than a low boil.
- Use a minimum amount of water for cooking to save time, preserve nutrients and use less energy.
  - \* *Primary energy: Potential energy such as natural gas, oil or coal, stored in the earth's crust and used in its original form, or to produce a secondary energy such as electricity.*
- Utensils which conduct heat slowly and/or unevenly (stainless steel, cast iron, enamel, glass and glass

---

ceramic) should be used with a low or medium flame unless food is cooking in a liquid. Cooking in these pan materials with no liquid, over a high flame, can cause uneven pan temperatures; it will be hot where the flame touches but cooler in other spots.

- Cover pans whenever possible; foods will cook faster and less moisture will escape into your home. But remember, a medium boil in an uncovered utensil will increase to a rapid boil when you add a well-fitted cover.

#### Oven

Ovens certified by the American Gas Association must have an automatic ignition system (pilotless electronic or standing pilot) for both oven and broiler. With these systems, no gas will flow to the burner if the pilot is not working.

To light older, non-automatic (no standing pilot) ovens, hold a lighted match over the proper opening in the oven bottom; then turn oven knob to highest setting. After burner lights, turn knob to desired setting.

#### When using your oven

- Preheat for most baked products—cakes, breads, cookies, etc. Five to ten minutes is usually enough. Follow manufacturer's recommendations.
- Preheating is usually not necessary for most casseroles, vegetables and meats where variables such as size and temperature will cause differences in cooking time and appearance. Remember though, that time and temperature listed in most cookbooks is based on a preheated oven. Increase cooking time by a few minutes if you do not preheat.
- Adjust racks, if necessary, before turning on the oven.
- When using two racks, leave at least four inches between them.
- Allow at least one to two inches of space between and around all pans. Stagger pans on two racks to allow good circulation.
- Two cookie sheets can be used at one time if there is adequate space around the sheets and between the racks.
- If the oven is wider than it is deep, place oblong pans to conform to the shape of the oven.
- Prevent hard-to-remove brown spots from forming on window and walls of oven by propping oven door open slightly for a few minutes after you turn on the oven. This allows condensation to escape.
- If you use a piece of aluminum foil on the lower rack or oven bottom to catch spills, be sure it doesn't interfere with heat circulation through openings on the oven bottom.
- Cook in "batches" to save time and energy.

- Opening the oven door during baking prolongs baking time and wastes energy.
- Do not use the oven to heat the kitchen. The oven was not designed for this purpose and it could be hazardous.

#### Broiler

The broiler on your gas range may be located in a separate compartment below the oven, in the oven itself or at eye-level. The burners may be conventional or infrared. In conventional broilers, foods cook by exposure to direct heat from the gas flame. Infrared broilers cook more quickly and may use either a special burner or radiating plates which "glow" to produce more heat than conventional broilers. Convection ovens broil food with a flow of forced hot air.

#### When using your gas broiler

- Trim excess fat from meat to reduce spattering. Cut slashes through the fat around the edges to prevent the meat from curling.
- Close the oven door for broiling.
- Meats brown better if they are thawed and at room temperature when broiling begins.
- Position pan in broiler compartment according to manufacturer's instructions. Meat stays rarer and cooks faster the closer it is to the flame. For well-done foods and slower cooking, place food farther from the flame.

#### RANGE FEATURES

##### Oven cooking methods systems

**Convection oven:** This oven transfers heat by forced air currents. The moving air currents speed heat penetration so food cooks faster at temperatures 25° to 50° lower than a conventional oven. You can use your favorite recipes with a convection oven, but you might have to adjust cooking time, temperature and rack position. Correct rack positions are important in ovens where the heated air enters from the top, as in the convection range, because the closer the food is to the top, the faster it cooks.

**Convection/microwave combination:** Performs six functions quickly and efficiently...bake only, broil only, microwave only, convection-and-microwave, microwave-and-broil, and self-clean.

##### Automatic cleaning

- **Continuous-cleaning (catalytic):** In this system, catalytic materials are mixed into the porcelain enamel coating of the oven walls or liner panels. Most oven soil oxidizes when the oven is operated at normal baking and broiling temperatures. The higher the oven temperature, the faster the stains are removed; the oven stays

presentably clean.

- **Self-cleaning (pyrolytic):** In this system the oven cleans during a separate high heat cycle (85°F to 1,000°F). Reduces oven soil to white ash which you later remove with a damp cloth.

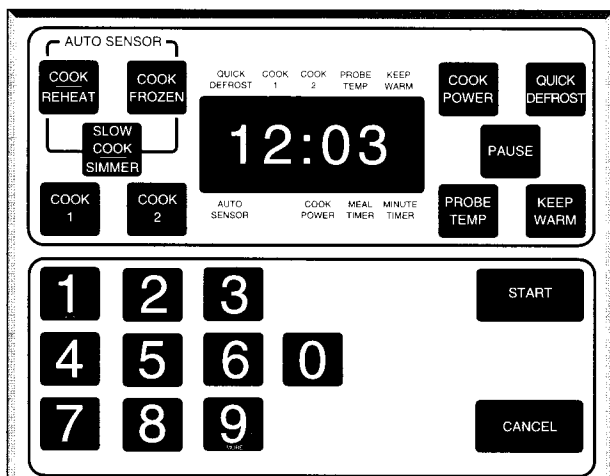
#### Programmed ovens

Several types of clock-controlled ovens are available.

- **Cook-Hold:** Oven automatically comes on at the time previously set, cooks for the indicated time, then oven temperature automatically lowers to “keep warm.”
- **Cook-Off:** Food cooks for the period of time set, then automatically shuts off.
- **Delay-Cook-Hold:** Oven automatically comes on at the time previously set, cooks for the indicated time, then oven temperature automatically lowers to “keep warm.”
- **Delay-Cook-Hold:** Oven automatically comes on at the time previously set, cooks for the indicated time, then automatically shuts off.

#### Electronic oven controls

Many gas ranges have electronic oven touchpads and buttons for setting time, temperature and function. Temperatures can be set for up to 12 hours rather than one. They're convenient and make oven temperature-setting most precise.



#### Low-heat burners

Produce about half the Btus of a standard burner. Make simmering foods and preparing delicate sauces and candies, etc. easier. Many standard burners can cook just as slowly.

#### High-speed burners

Provide about 30% more Btus for quantity cooking or quick boiling.

#### Sealed burners

Keep spills from leaking below cooktop surface so clean-up is easy. However, cleaning with standard burners is no longer the difficult chore it once was; burners lift out easily for cleaning the under-cooktop area.

#### Low temperature ovens

Oven temperatures can be set as low as 140°F to 200°F to thaw foods, warm serving dishes and keep cooked foods warm without drying them out.

#### Down-draft cooktops

A down-draft ventilating fan is built into a cooking surface and vented outdoors through a sidewall. Most cooktops of this design have optional modules such as a rotisserie, griddle or an extra set of burners.

#### Griddles

A griddle is a large cooking surface, generally made of aluminum, for use on the cooktop. It may be a separate portable unit which fits over one or two burners, or built in with its own burner.

#### Exterior finishes

- **Porcelain enamel:** A common exterior finish that's durable and resistant to heat, stains, acids, scratches, fading and yellowing.
- **Baked enamel or electrostatically applied polyester:** Resists chipping better than porcelain enamel, but is less durable so it stains and scratches more easily.
- **Stainless steel and chrome plated:** Durable, stain resistant and easy to clean. If overheated they may turn dark or discolor.

#### CARE OF YOUR GAS RANGE

##### Keeping your surface burners clean

- Keep areas around surface burners and pilot lights free of soil and food particles for most efficient operation.
- Avoid cooking-on food spills by immediately turning off the flame and wiping off the outside of the pan; complete cooking on a different burner. Clean soiled burner with a damp cloth when cool.
- Wipe off water on pan bottom before setting on burner, to prevent brown spots from forming on burner.
- Wipe burner caps after each use to remove fat spatters or spill-over deposits. Remove stubborn stains with a non-abrasive plastic pad and baking soda and water paste or non-abrasive cleanser.

---

Keeping your oven clean: follow manufacturer's instructions for cleaning. If not available, use the following:

#### Standard porcelain enamel interior

This oven must be cleaned by hand; preventive maintenance is the best method for keeping it clean. Minimize the need to clean by propping oven door open slightly for a few minutes when oven is first turned on, and wiping spots and spills as they occur.

- For easier cleaning, clean oven before it is entirely cool, but NOT while it is hot. In most cases, using a fine steel wool pad with warm sudsy water will do the job. Soil is also easier to remove if a small glass or enamel container of household ammonia stands in the oven for several hours or overnight before washing. If the oven is extremely dirty, you may have to use a commercial cleaner.
- If you use a commercial cleaner, it is important to carefully read and follow instructions.

#### Continuous-cleaning (catalytic)

This system cleans while it cooks. It works most efficiently at **higher temperatures for longer periods of time.**

- Occasionally wipe out the interior surface with a nylon pad and plain water; then blot dry and run the oven for about two hours at 475°F.
- Heavy spillovers can destroy the oxidizing action by glazing over or "varnishing" and not allowing air to penetrate the soil. Protect the oven bottom from spills with a piece of foil or a cookie sheet.
- For stubborn stains, try this procedure:
  1. Remove oven bottom (if removable).
  2. Run water on it.
  3. Scrub with nylon or plastic pad or brush.
  4. Tap brittle crust or varnish-type coating with a wooden or plastic utensil. Lift off any loosened soil.
  5. Spray with all-purpose cleaner. **DO NOT USE CAUSTIC OVEN CLEANING PRODUCTS OR ABRASIVES.**
  6. Let soak for 15 to 30 minutes.
  7. Scrub softened soil with nylon brush or pad.
  8. Rinse and blot excess water.
  9. Replace oven bottom; then turn on oven to 475°F for about two hours.

#### Self-cleaning (pyrolytic)

- Before turning on the cleaning cycle, wipe the outside of the range, the area of the door outside the oven gasket, and the window.
- Wipe out the inside of the oven with a damp cloth to remove grease and spillovers.

- Set cleaning cycle according to manufacturer's instructions.

**Outside surfaces of the range sometimes become very hot during the self-cleaning process, so keep children away.**

- After cleaning and cooling, remove light ash residue with a damp cloth.
- **NEVER** use oven cleaners on a self-cleaning oven. With high heat, even a slight residue of cleaner may etch the porcelain finish.

#### Keeping your broiler clean

- Place foods on a cool broiler pan to prevent sticking.
- Avoid use of aluminum foil on broiler grid; it prevents proper drainage of grease and increases spattering and smoking.
- Remove broiler pan and grid from range as soon as broiling is completed. Sprinkle hot pan and grid with liquid detergent; cover with a damp cloth or paper towel. Residue will be steamed and loosened to make cleaning easier.

#### Cleaning the exterior of your range

##### Porcelain and baked enamel

- Wipe spills immediately with a paper towel or soft dry cloth so they don't cook onto the range surface. Avoid wiping hot porcelain with a wet cloth; it may cause crazing.
- Do not use cleaners with a wax base; heat may cause discoloration.
- When range is cool, clean with hot sudsy water and rinse. Stubborn spots may be removed with a non-abrasive cleanser. An ammonia and water solution is effective on greasy soil. Polish with a soft dry cloth.

##### Stainless steel and chrome

- Wash with warm sudsy water.
- Clean spots with a non-abrasive cleaner.
- Polish with a soft dry cloth.

Reprinted with permission of Minnegasco.