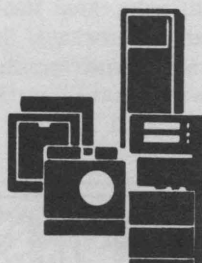


# FACT SHEET

7-3-74  
20M  
BT

L-1240



## RANGES

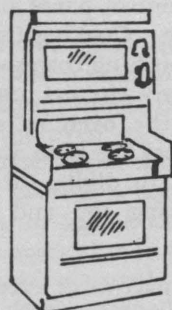
Janice Garrett\*

A range is an essential kitchen household appliance for which choices in size, type, features and price are endless. Careful range selection is important. Before shopping, you should consider your actual needs, preferences and budget allowance. Remember that the more features you select, the higher the cost of the appliance.

### Basic Selection Considerations

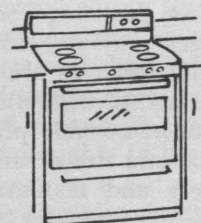
**Fuel source.** First, decide if you want a gas or an electric range. This will depend largely on the availability and cost of each fuel source in your area, as well as installation considerations. If both types are economically feasible, consider your personal cooking preference.

**Type of range.** Select the type of range that will best suit your family's needs and kitchen space.

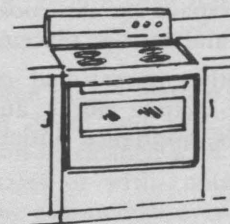


**SPLIT-LEVEL RANGE**

**FREE-STANDING RANGE**



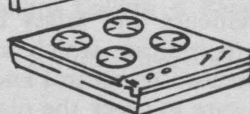
**SLIDE-IN RANGE**



**DROP-IN RANGE**



**BUILT-IN RANGE**



**Size of range.** Ranges are available in three different sizes: the standard range, 36 to 42 inches in width; the 30-inch range (most common); and the apartment model, 19 to 24 inches wide.

\*Extension home management specialist, The Texas A&M University System.

## Basic Construction and Features

Frames of electric and gas ranges are of welded-steel panels, usually finished in porcelain enamel with stainless-steel or chrome trim.

Oven liners are also made of porcelain enamel because of its durability and high degree of heat resistance. Oven racks may be made of stainless steel, aluminum or chromium-plated steel. Sturdy, rust-resistant, easy-to-clean racks with grids close enough for adequate support of small utensils are useful, as are also those with a lock stop to prevent tipping when pulled out. Plug-in oven and broiler heating coils make for easier cleaning and replacement. Ovens should be large enough to hold ample-sized roasters or trays. The capacity of eye-level ovens and those insulated for self-cleaning generally will be less than that of conventional ovens.

Cooking tops, usually made of porcelain enamel on steel, may include models using stainless steel or chrome. Burner drip bowls on gas ranges and reflector pans on electric ranges may be either porcelain-on-steel or bright metal, such as aluminum. Other features to be checked for durability, usability and cleanability include removable plug-in units, as well as number, type and size of units and burners needed. For safety and maximum work space on the cooking top, always check the unit and burner placement.

Other operational controls and auxiliary features include clocks, automatic and manual oven timers, appliance outlets and control knobs.

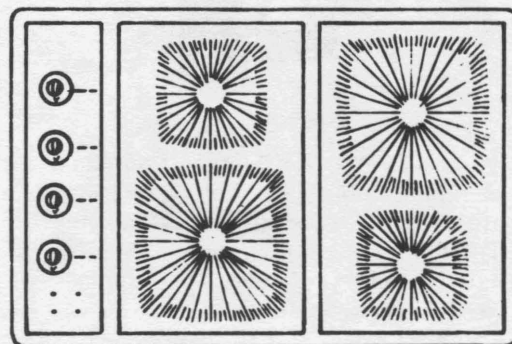
## Basic Safety Features

The placement of oven and cooking controls should be checked for safety. Controls may be located on the top back instead of at the front of the range so that they cannot be reached by small children or turned on accidentally. Two-step controls are also available to make operation more "child-proof." Other convenience and safety features include signal lights to indicate which unit or burner is operating and removable control knobs to make cleaning easier. Be sure to check the placement of the appliance outlet so that electrical cords will not stretch across or rest over the units or burners.

## Special Types

**Smooth top.** The smooth-top, glass-ceramic cooking surface, which is available in one piece or in square sections, is durable but can be scratched if

not cared for or used properly. Sunburst patterns mark the "units" and turn yellow to indicate when the unit is heated. Some models also have signal lights as an added safety feature. Though this type works best with ceramic cookware, some models can also tolerate any flat-bottomed cookware. Primary advantages are the smooth top's decorative appearance and maximum ability of counter space.



**SMOOTH-TOP RANGE**

**Cool heat.** In the cool-heat type, food is cooked by induction. Cookware made from magnetic materials (such as iron or steel) produce heat in the pan. The cooktop itself remains relatively cool.

**Multipurpose range.** In a multipurpose range, the surface units are removable, permitting the substitution of optional accessories such as a rotisserie, griddle or french fryer to extend the uses of this range.

**Touch-control range.** The touch-control electric range has a smooth-console control panel that can be activated by a simple touch. Cooking time and temperature are selected by touching corresponding controls which activate memory circuits and carry out cooking instructions to the oven or surface-heating areas. Besides the cooking time and temperature shown on the panel in digits, this range also features a smooth cooking top and a self-cleaning oven.

**Space-saver range.** One space-saver type offers an eye-level oven with a dishwasher under the cooking surface, all fitting into a 30-inch space.

## Special Features

Two types of automatic cleaning processes are available for ovens: the pyrolytic (self-cleaning) and the catalytic (continuous-cleaning).



**Self-cleaning ovens.** A self-cleaning process reduces accumulated grease and spills to a fine, wipe-away ash during a high-heat burn-off cycle. Oven racks and reflector pans can be placed in the oven and included in the cleaning process. Heavy insulation and door locks provide safeguards against the high heat of the cycle. After the 1- to 2½-hour cleaning cycle, the oven interior and auxiliary items come out looking "brand new." Oven interiors are made of a special, high-temperature porcelain enamel.

**Continuous-cleaning ovens.** The continuous-cleaning-process ovens have a grainy, dull enamel surface which "hides" or spreads out most of the oven residues at normal cooking temperatures. Ovens stay "presentably" clean. But since some heavy residues do not burn off readily during normal cooking temperature operations, these surfaces must periodically be cleaned manually. Follow the manufacturer's directions for manual cleaning, and avoid using abrasives or commercial oven cleaners on the oven liner, as this can be damaging to the special matte finish.

**Broilers.** One electric model features a no-turn broiler allowing meat to be broiled on both sides at once without turning. Some gas models feature a separate broiling compartment located between the surface burners and the oven for greater accessibility.

**Meat thermometers.** An automatically controlled metal probe is inserted into meat or poultry and registers the inside temperature of the meat on a thermometer on the control panel. Another control can be set to the desired degree of doneness for the meat being cooked. When the thermometer reaches the preset point, the oven turns off.

**Timer.** Some electric ranges offer both an automatic and a manual clock and timing device. The automatic timer control can be programmed to turn the oven on and off at predetermined hours and cook at the temperature selected. If the automatic control is not used, the timer can serve as a buzzer to signal the end of the cooking period. Gas ranges also have an automatic timer control, but baking usually starts immediately and cooks for a predetermined time. The oven temperature is then reduced to keep food warm without further cooking. This method consumes fuel and may dry out food. When considering buying a model with an automatic timer, determine how often you would use it.

**Heat control.** Some gas models offer *thermostatically controlled surface burners* making it possible to set and maintain the correct cooking

temperature. The control automatically raises or lowers the burner flame. Some electric models feature *infinite controls* allowing you to select any degree of heat between settings on the control switch. Manually adjustable, standard-type control for both gas and electric models will be almost as efficient and will cost much less.

## Care

Clean ranges with detergent and water or a baking soda solution. Rinse and dry. Do not use harsh abrasives as they will scratch the porcelain surface. Wipe up spills immediately and wipe clean after each use.

Aeration pans and reflector pans may be wiped or removed and washed in a sudsy solution. Charred food particles on tubular units can be gently removed with a fine steel wool, but units should not be immersed in water. Some gas burners can be removed from the range, and the mixer tubes cleaned carefully with a small, stiff brush. Wash all removable gas-range parts in soapy water, rinse thoroughly in hot water and dry by placing upside down in a warm oven. The pilot-light valve may be carefully cleaned with a piece of wire, but rough handling can damage it.

For easier cleaning, some ranges feature removable control knobs, oven doors and side panels. Manually cleaned ovens can be cleaned with a solution of ammonia plus water or with commercial oven cleaners. When using commercial oven cleaners, wipe oven thoroughly after cleaning and pre-heat oven for 20 minutes before using to eliminate smoking from cleaner residues. For maintenance of self-cleaning or continuous-cleaning ovens, follow the manufacturer's instructions.

## Before Calling a Repairman

If your range does not work, check these points:

### Electric Range

- Change timer clock on "automatic" to "manual."
- Push removable elements all the way in.
- Set selector switch for "manual" or "bake."

### Gas Range

- See if pilot light is out.
- Change clock on "automatic" to "manual."
- Set selector switch for "manual" or "bake."
- Check gas line for rust corrosion.
- Check burner to see if stopped up.

---

The following Extension fact sheets discuss selection, use and care of home appliances.

- L-1139 Selection, Use and Care of Major Home Appliances
- L-1168 Refrigerators and Freezers
- L-1179 Decisions about Dishwashers
- L-1180 Washers
- L-1181 Dryers
- L-1182 Disposers and Compacters
- L-1240 Ranges
- L-1241 Microwave Appliances

These are available from your county Extension office.

---

The author gratefully acknowledges the assistance of Lynn Bourland, Lillian Cochran and Doris Myers, Extension home management specialists, The Texas A&M University System, in the preparation of this publication.

*Educational programs conducted by the Texas Agricultural Extension Service serve people of all ages regardless of socio-economic levels, race, color, sex, religion or national origin.*

Cooperative Extension Work in Agriculture and Home Economics, The Texas A&M University System and the United States Department of Agriculture cooperating. Distributed in furtherance of the Acts of Congress of May 8, 1914, as amended, and June 30, 1914.  
20M-4-74