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**Oven, Stove, Range
and Cooktop Repair**

Foreword

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Oven, Stove, Range and Cooktop Repair

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Chapter 3

PARTS ACCESS

Just for your info and future reference, an *electric* cooktop and oven combined into one unit is called a **range**.

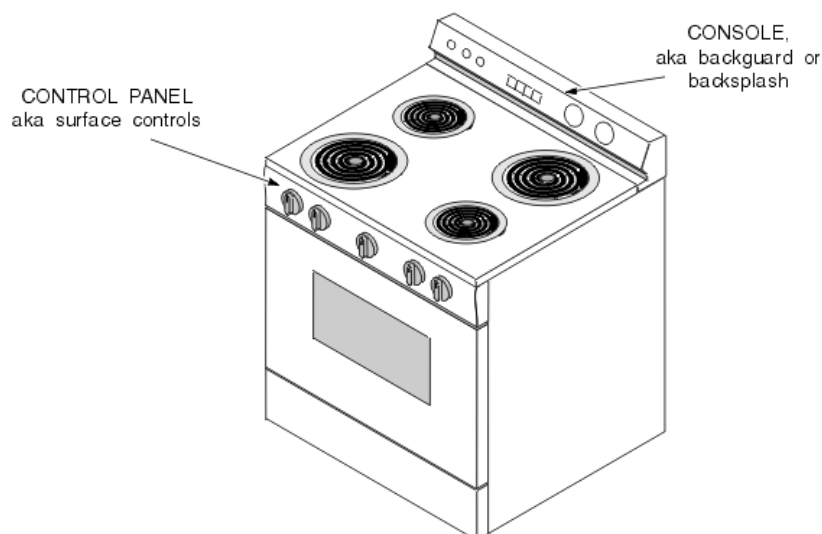
A *gas* cooktop and oven combined into one unit is called a **stove**.

This manual covers both ranges and stoves, in addition to freestanding cooktops and wall ovens. The systems in freestanding cooktops and wall ovens are the same as in ranges and stoves. So when this service manual refers to a particular aspect or function of a cooktop or an oven, the same thing will be true of a range or a stove.

3-1 CONTROL PANEL

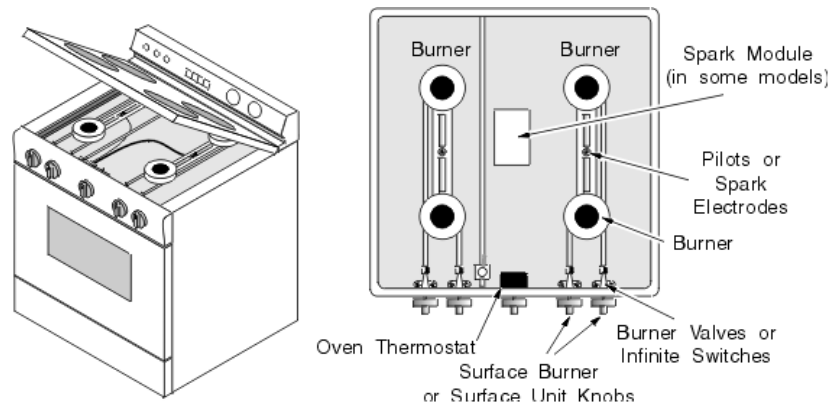
Typically clocks, timers and other manual oven controls are located in the control panel. In ranges and stoves, there may be two control panel areas. The main burner or surface unit controls and oven thermostat are usually located at the front of the cooktop area, and selector switches or lighting controls may be located in the console area, at the rear of the cooktop. In some models, the wiring diagram may be contained in an envelope inside the console. See section 3-6.

Figure 3-A: Control Panel Nomenclature



In most stoves, ranges and cooktops, the cooktop just lifts up to provide access to gas inlet piping, burners and burner valves, pilots, oven thermostats, infinite switches and surface unit wiring. This, of course, makes the burners easier to clean, too. In gas models with spark ignition, the spark module may be located inside a metal box inside the cooktop compartment. Do not forget to remove power from an electric cooktop before lifting it.

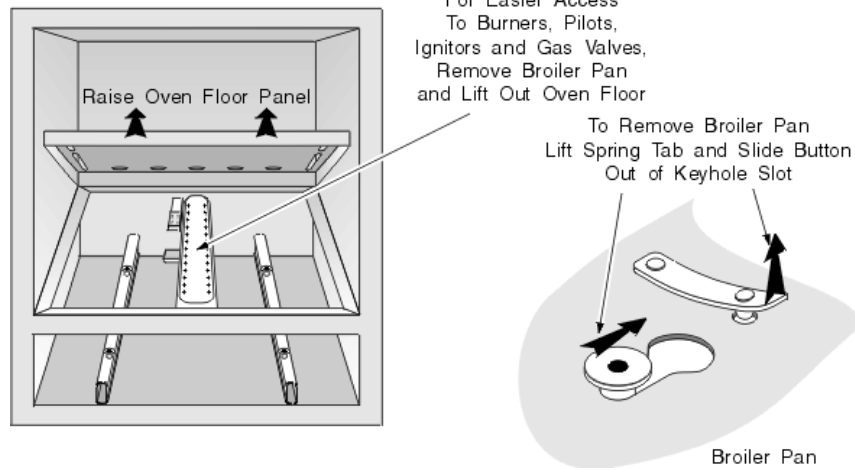
Figure 3-B: Under Cooktop Access



3-2 BROILER PAN OR STORAGE (Figure 3-C)

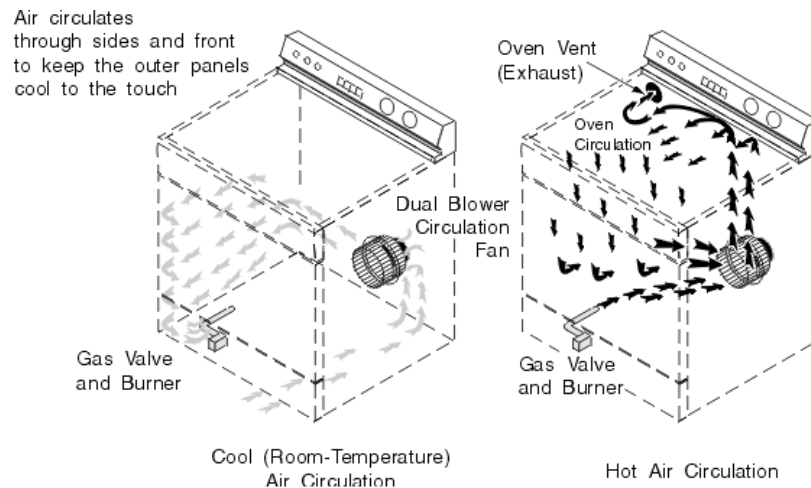
Since a gas oven burner is underneath the oven, the space below it is usually dedicated to a broiler compartment. Beneath the oven, at the back of the broiler compartment is usually where the gas oven ignitor or pilot and safety valve are located.

Figure 3-C: Broiler Pan and Oven Floor Access and Removal



This may be different in a convection oven as shown in figure 3-D. The oven floor usually just lifts out for easier access to work on the burner, ignitor or gas valve. There will also be holes in the oven floor to facilitate airflow within the oven while it is operating.

Figure 3-D: Typical Convection Oven Arrangement and Air Circulation



NOTE: Do not block these holes in the oven floor with aluminum foil. It will definitely block proper airflow in your oven, and it will probably disturb burner operation, too!

Electric ovens are somewhat different. They have separate broil and bake elements at the top and bottom of the oven, respectively. So the bottom compartment is just for storage of pans, and the oven floor is not removable.

The broiler or storage pan may be removed as shown in figure 3-C (keyhole slots). In some models, the wiring diagram may be found inside the front leg of the oven after removing the broiler pan or storage drawer. See section 3-6.

3-3 REAR ACCESS (Figure 3-E)

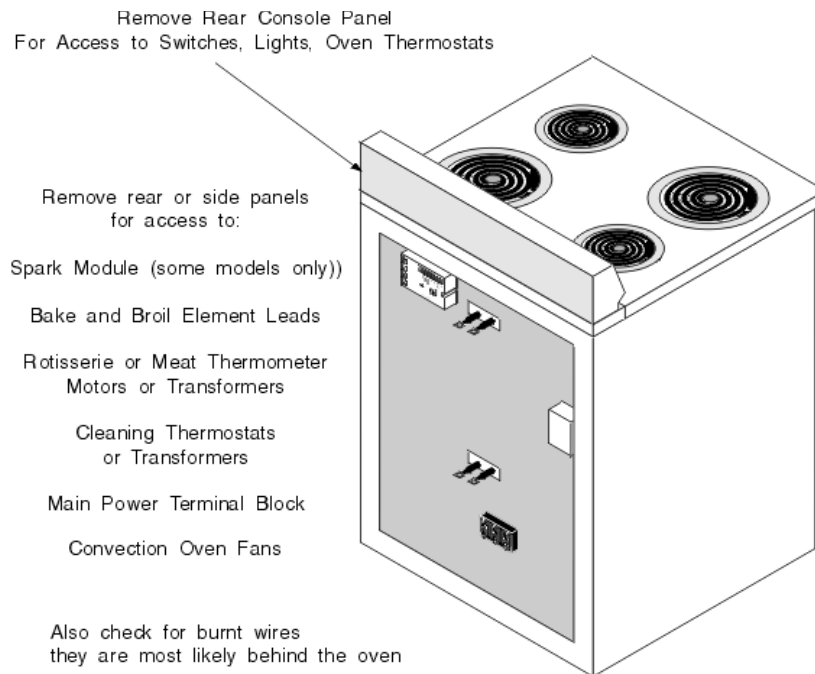
In some models, high-limit thermostats, cleaning limit thermostats, oven thermostat probes, convection fans and sail switches, rotisserie motors, and oven spark modules are accessed by removing side or rear access panels as shown in figure 3-E. If you have a problem with burned leads to an electric oven element, sometimes you need to go in through the back to find a lost wire lead.

To access these panels, the oven obviously must first be pulled away from the wall. This can be tricky. Be careful that there is enough excess flexible gas piping and electrical power cord. If not, you must first disconnect gas and/or power from the oven.

A stove should have a flexible line from the wall valve to the the gas pressure regulator. The pressure regulator should be located under the cooktop as shown in Chapter 5, figure 5-B. In a wall oven, you may need to open up the control panel to get to the pressure regulator.

If you can, shut off the manual gas valve at the wall. Sometimes access to it is through the kitchen cabinet adjacent to the oven or stove.

Figure 3-E: Oven Rear Access

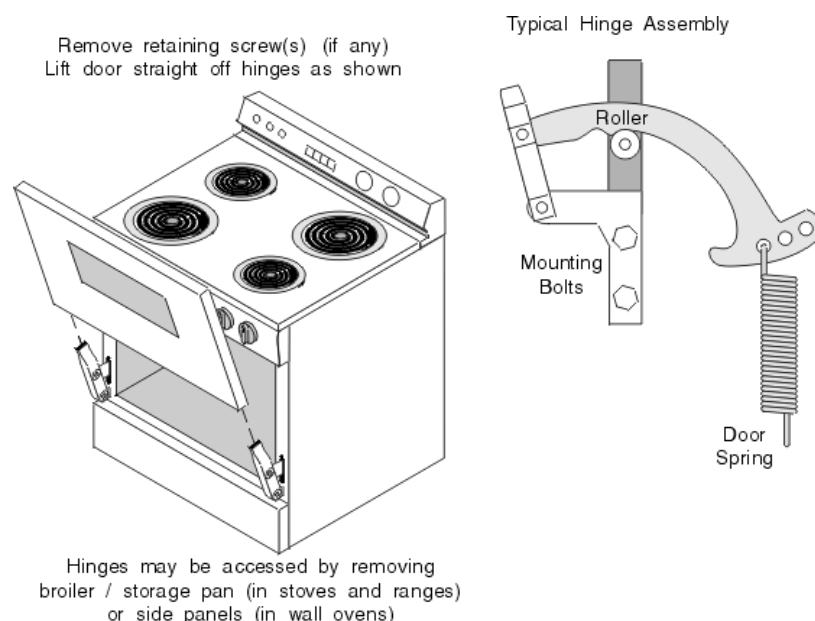


3-4 DOOR REMOVAL, DOOR SEAL AND OVEN GLASS SERVICE

In most models the door just lifts off as shown in figure 3-F. If so, open the oven door to the first notch (nearly fully closed) and lift the door straight off its' hinges. In some ovens, you must first remove one or two screws that hold the door to the hinge. Be careful and do NOT put your fingers under the hinges; the springs are strong and you might just end up wishing you hadn't.

Working on oven hinges and springs in some models requires access through the broiler/storage pan or side panels. Shown in diagram 3-F is a typical oven door hinge and spring arrangement.

Figure 3-F: Oven Door Removal and Disassembly



comes apart so you can get it back together. Often there are layers of stuff inside the door; insulation, oven glass (cleaning cycle) heat shields, door locking mechanisms, switches and other gadgets.

In some ovens, the door seal is attached to the oven opening instead of the door. To replace the door seal in these ovens, you sometimes have to open up the back panel of the oven and loosen the whole oven inner liner.

3-5 NAMEPLATE INFO

The metal nameplate is usually found inside the door or under the cooktop as shown in figure 3-G. It may also be fastened to the top edge of the door itself, on top of the console, or inside of the broiler compartment or pan storage compartment.

If you cannot find the nameplate, check the original papers that came with your oven when it was new. They should contain the model number somewhere.

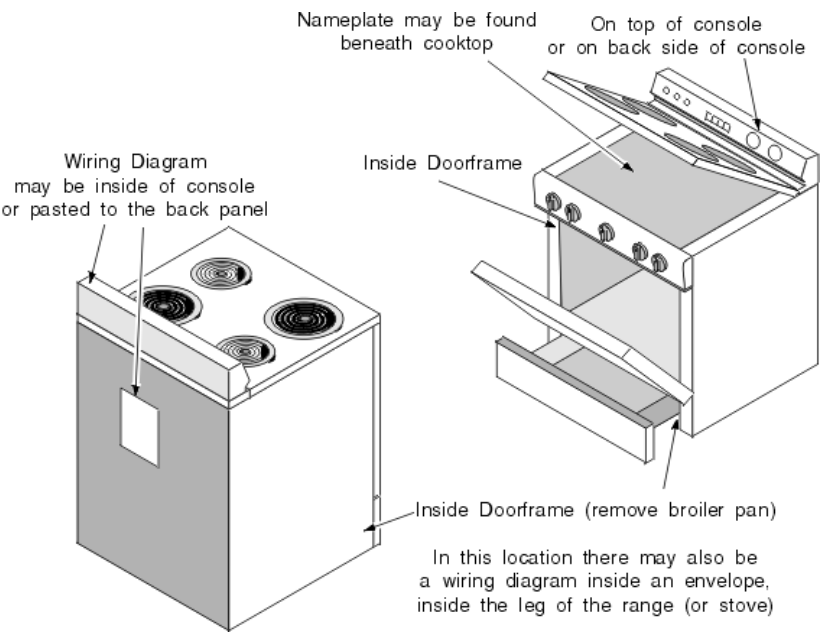
In any case, and especially if you have absolutely NO information about your oven anywhere, make sure you bring your old part to the parts store with you. Sometimes they can match it up by looks or by part number.

3-6 WIRING DIAGRAM

In older models, wiring diagrams may be pasted to the back of the oven. In newer machines, they may be in a plastic bag inside the console or inside one of the front legs of the oven. Access as shown in figure 3-G. In ovens with digital controls, a diagnostic sheet with oven error codes and diagnosis procedures may sometimes be found in the same places.

If you are tracing a complex electrical circuit, it may not hurt to make a couple of photocopies of the wiring diagram, so that you can physically follow different circuits with a colored highlighter pen.

Figure 3-G: Nameplate and Wiring Diagram Location



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