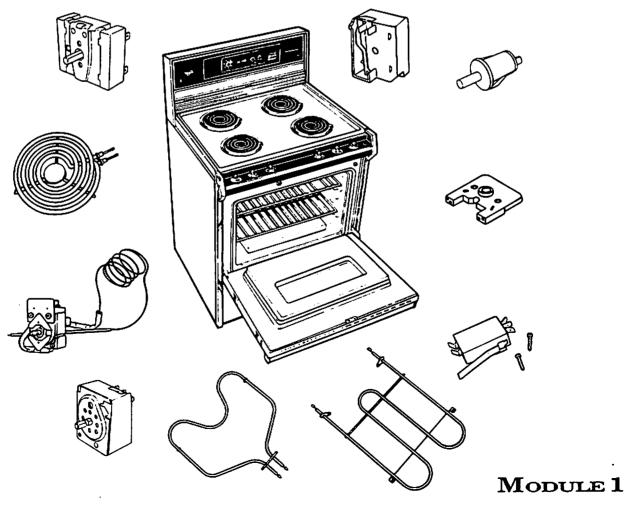
# RANGE

# STUDY COURSE

# **UNDERSTANDING RANGE:**

 ELECTRICAL COMPONENTS and CHECKING PROCEDURES



LIT4314424 Rev. B

# **INTRODUCTION**

The material presented in this module is intended to provide you with an understanding of the fundamentals of range servicing.

Major appliances have become more sophisticated, taking them out of the screwdriver and pliers category. Their electrical circuits include several different types of automatic controls, switches, heaters, valves, etc.. Semiconductors, solid-state controls, and other components usually associated with radio and television electronic circuits, are being engineered into automatic washers, dryers, dishwashers and refrigerators.

The appliance technician is emerging into a professional status of his own. He must prepare himself now to be able to perform his duties today as well as to retain his professionalism in the future.

No longer is on-the-job training sufficient to prepare technicians for the complicated procedures required for todays sophisticated appliances. This training can best be obtained through organized classroom study and application. However, much of the knowledge necessary to service todays appliances can be obtained through study courses. Completion of this and other courses will provide you with sufficient understanding of appliances and their operation to enable you to do minor service. It will also serve as a valuable stepping stone to more advanced study and on-the-job training to improve your servicing skills.

Information contained in this module is used on WHIRLPOOL® appliances.

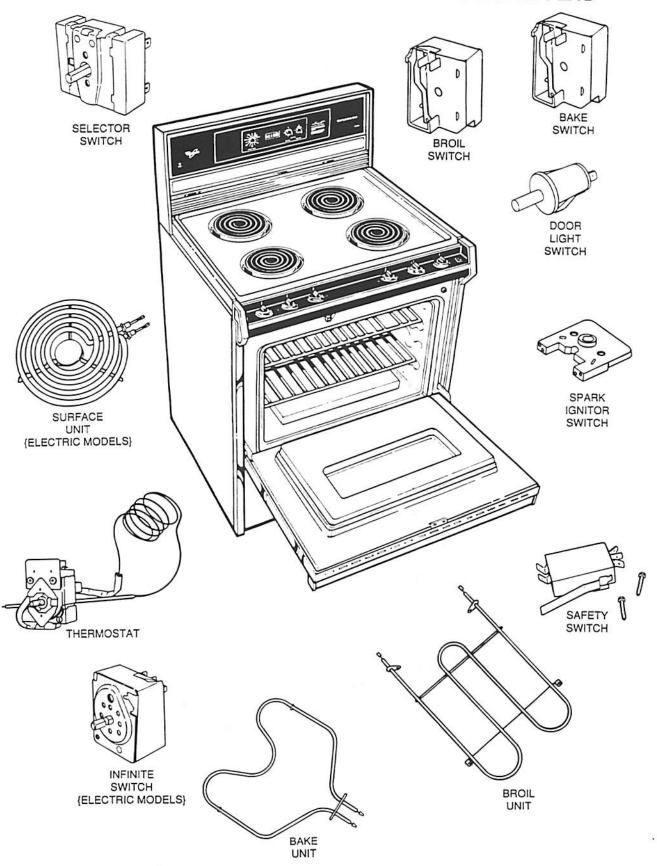
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\*NOTE; We recommend taking the TEST for MODULE 1, right after studying it.

# CHAPTER 1

# **ELECTRICAL COMPONENTS**



# INDICATOR LIGHT

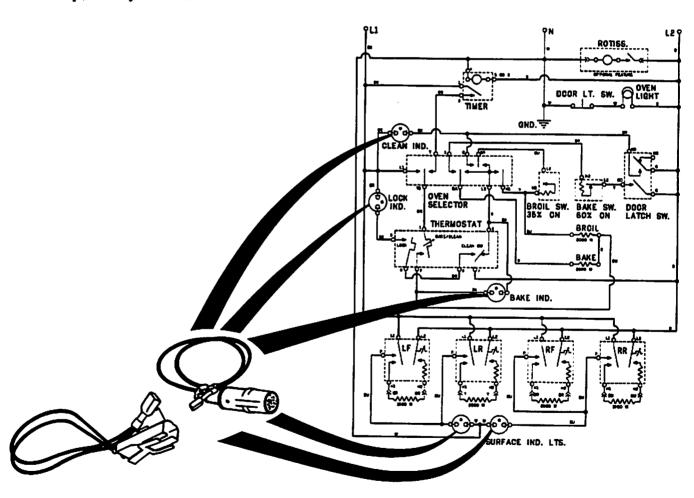
These parts are located behind the control panel and when lit, shows you if one of the surface units bake, clean or lock indicator controls is ON.

# CHECKING PROCEDURE

STEP 1 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the light. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 2 THESE INDICATOR LIGHTS MUST BE CHECKED BY RUNNING A VOLTAGE CHECK. FOR YOUR PERSONAL SAFETY, THIS CHECK MUST BE DONE BY A FACTORY AUTHORIZED SERVICE COMPANY.

STEP 3 Reconnect the wires to the proper terminals as previously marked.



#### **BAKE RELAY**

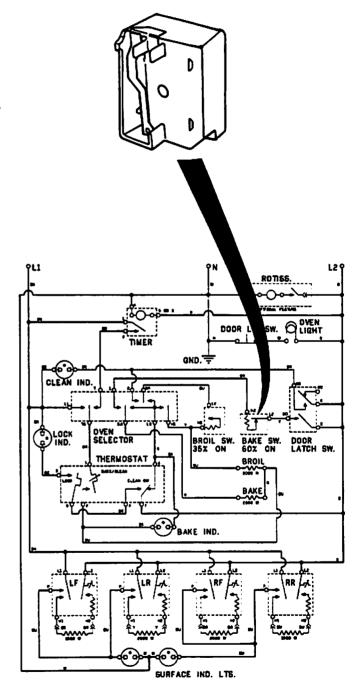
This bake relay is located in the back on *Freestanding* and *Eye-Level* ranges and behind the control panel on *Built-In* ranges.

This bake relay turns the bake unit (element) on 60% of the time with the range in the clean cycle only.

This relay is not in the circuit during the broil or bake cycle.

#### CHECKING PROCEDURE

- STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.
- STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the relay. This procedure should assure that the right wire is reconnected to the right terminal.
- STEP 3 Touch one ohmmeter probe to one of the terminals on the relay.
- STEP 4 Touch the other ohmmeter probe to the other terminal on the relay.
- STEP 5 The ohmmeter should show ZERO resistance (continuity). If not, the relay is bad and needs replacing.
- STEP 6 Reconnect the wires to the proper terminals as previously marked.



### **BROIL RELAY**

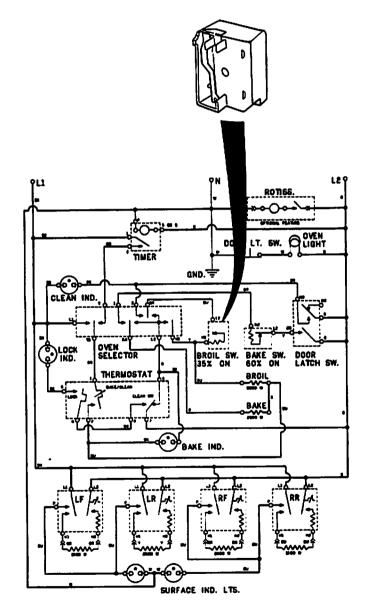
This broil relay is located in the back on *Freestanding* and *Eye-Level* ranges and behind the control panel on *Built-In* ranges.

This broil relay turns the broil unit (element) on 35% of the time with the range in the bake or clean cycle.

This relay is not in the circuit during the broil cycle.

# CHECKING PROCEDURE

- STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.
- STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the relay. This procedure should assure that the right wire is reconnected to the right terminal.
- STEP 3 Touch one ohmmeter probe to one of the terminals on the relay.
- STEP 4 Touch the other ohmmeter probe to the other terminal on the relay.
- STEP 5 The ohmmeter should show ZERO resistance (continuity). If not, the relay is bad and needs replacing.
- STEP 6 Reconnect the wires to the proper terminals as previously marked.

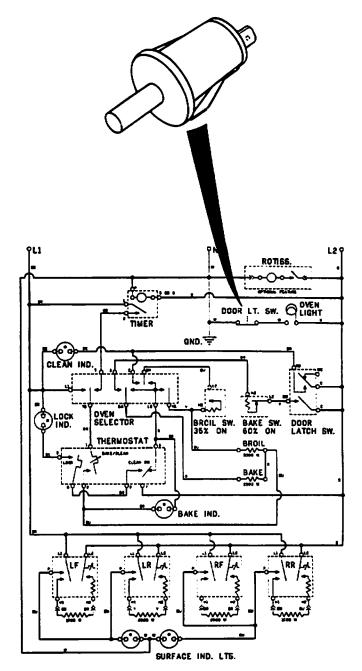


#### DOOR LIGHT SWITCH

This part is located in the upper right hand corner behind the oven door. This switch turns the oven light ON when the oven door is opened, or OFF when the oven door is closed.

# CHECKING PROCEDURE

- STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.
- STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the switch. This procedure should assure that the right wire is reconnected to the right terminal.
- STEP 3 With the button out (oven door open).
- STEP 4 Touch one ohmmeter probe to one of the terminals on the switch.
- STEP 5 Touch the other ohmmeter probe to the other terminal on the switch.
- STEP 6 The ohmmeter should show ZERO resistance (continuity) with the button out. If not, the switch is bad and needs replacing.
- STEP 7 With the button in (oven door closed).
- STEP 8 Touch one ohmmeter probe to one of the terminals on the switch.
- STEP 9 Touch the other ohmmeter probe to the other terminal on the switch.
- STEP 10 The ohmmeter should show an open circuit with the button in. If not, the switch is bad and needs replacing.
- STEP 11 Reconnect the wires to the proper terminals as previously marked.



# INFINITE SWITCH

This part is located in the control panel and turns the surface units ON or OFF. You can set this infinite switch to LOW - MED - HI or anyplace in between.

# **CHECKING PROCEDURE**

Obtain a properly working ohmmeter from your local store. We will be doing RESISTANCE checks. This is the safest way because the range is unplugged from the power source and avoids the possibility of you receiving an electrical shock.

- STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.
- STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the infinite switch. This procedure should assure that the right wire is reconnected to the right terminal.

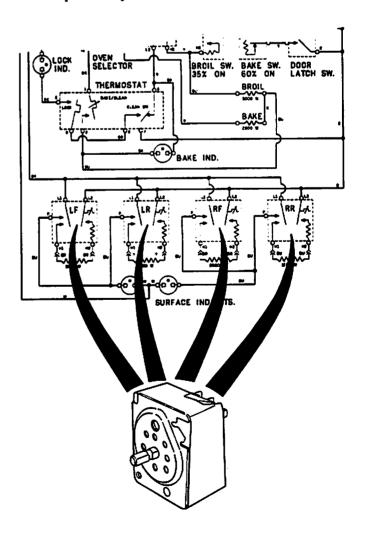
#### **OFF POSITION**

- STEP 3 Turn the knob to the OFF position.
- STEP 4 Touch one ohmmeter probe to terminal H1 (1).
- STEP 5 Touch the other ohmmeter probe to terminal H2.
- **STEP 6** The ohmmeter should show an open circuit when touching these terminals. If not, the switch is bad and needs replacing.
- STEP 7 Touch one ohmmeter probe to terminal L1 (3).
- STEP 8 Touch the other ohmmeter probe to terminals P (2) and H1 (1).
- STEP 9 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.

#### LOW - MEDIUM - HIGH - POSITION

- STEP 10 Turn the knob to each setting and check.
- STEP 11 Touch one ohmmeter probe to terminal L1 [3].
- STEP 12 Touch the other ohmmeter probe to terminals P (2) and H1 (1).

- STEP 13 The ohmmeter should show ZERO resistance (continuity) when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 14 Touch one ohmmeter probe to terminal L2 (5).
- STEP 15 Touch the other ohmmeter probe to terminal H2 (4).
- **STEP 16** The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 17 Touch one ohmmeter probe to terminal H1 (1).
- STEP 18 Touch the other ohmmeter probe to terminal H2 (4).
- STEP 19 The ohmmeter should show an open circuit when touching these terminals. If not, the switch is bad and needs replacing.
- STEP 20 Reconnect the wires to the proper terminals as previously marked.

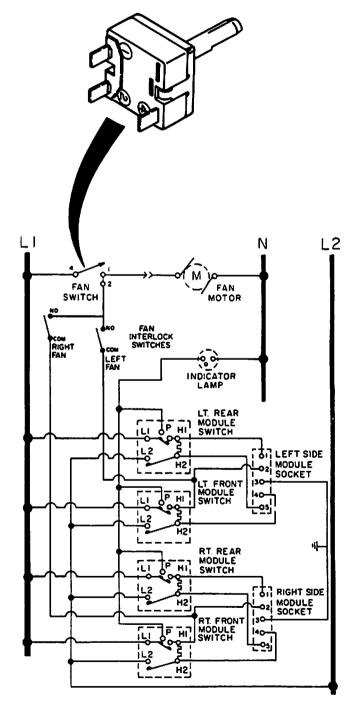


# **FAN SWITCH**

This fan switch is mounted to the control mounting plate on Down Draft Cooktops.

#### CHECKING PROCEDURE

- STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.
- STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the switch. This procedure should assure that the right wire is reconnected to the right terminal.
- STEP 3 Turn the switch to the OFF position.
- STEP 4 Touch one ohmmeter probe to terminal 1.
- STEP 5 Touch the other ohmmeter probe to terminal 2.
- **STEP** 6 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 7 The ohmmeter should show an open circuit between terminals 4 and 1 and 4 and 2. If not, the switch is bad and needs replacing.
- STEP 8 Turn the switch to the ON position.
- STEP 9 Touch one ohmmeter probe to terminal 1.
- STEP 10 Touch the other ohmmeter probe to terminal 2
- STEP 11 The chmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 12 The ohmmeter should show ZERO resistance (continuity) between terminals 4 and 1 and 4 and 2. If not, the switch is bad and needs replacing.
- STEP 13 Reconnect the wires to the proper terminals as previously marked.



# OVEN / FLUORESCENT LIGHT SWITCH

This part is located on the control panel and is either a rocker or push-button type switch.

# CHECKING PROCEDURE

Obtain a properly working ohmmeter from your local store. We will be doing RESISTANCE checks. This is the safest way because the range is unplugged from the power source and avoids the possibility of you receiving an electrical shock.

STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.

STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the light switch. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 3 Place the switch in the OFF position.

STEP 4 Touch one ohmmeter probe to one of the terminals.

STEP 5 Touch the other ohmmeter probe to the other terminal.

STEP 6 The ohmmeter should show an open circuit. If not, the switch is bad and needs replacing.

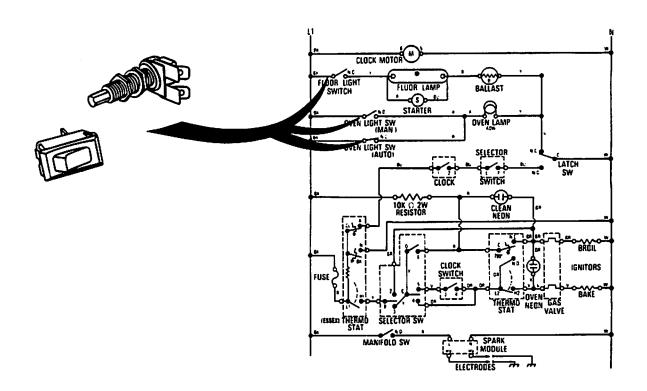
STEP 7 Place the switch in the ON position.

STEP 8 Touch one ohmmeter probe to one of the terminals.

STEP 9 Touch the other ohmmeter probe to the other terminal.

STEP 10 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.

STEP 11 Reconnect the wires to the proper terminals as previously marked.



#### SAFETY SWITCH

This part is located under the cooktop and burner box. Its function is to control the clean indicator light and the bake and broil elements.

#### CHECKING PROCEDURE

Obtain a properly working ohmmeter from your local store. We will be doing RESISTANCE checks. This is the safest way because the range is unplugged from the power source and avoids the possibility of you receiving an electrical shock.

- STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.
- STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the safety switch. This procedure should assure that the right wire is reconnected to the right terminal.

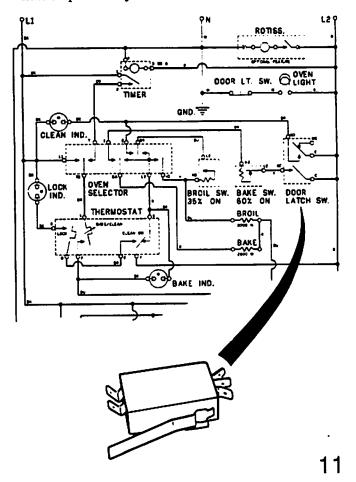
#### UNLOCK POSITION

- STEP 3 Touch one ohmmeter probe to terminal 1 (COM).
- STEP 4 Touch the other ohmmeter probe to terminal 3 (NC).
- STEP 5 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 6 Touch one ohmmeter probe to terminal 1 (COM).
- STEP 7 Touch the other ohmmeter probe, one at a time, to the rest of the terminals without touching terminal 3 (NC).
- STEP 8 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.

# **LOCK POSITION**

- **STEP 9** Touch one ohmmeter probe to terminal 1 {COM}.
- STEP 10 Touch the other ohmmeter probe to terminal 2 (NO).
- STEP 11 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 12 Touch one ohmmeter probe to terminal 1 (COM).

- STEP 13 Touch the other ohmmeter probe, one at a time, to the rest of the terminals without touching terminal 2 (NO).
- STEP 14 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 15 Touch one ohmmeter probe to terminal 4 (COM).
- STEP 16 Touch the other ohmmeter probe to terminal 5 (NO).
- STEP 17 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- **STEP 18** Touch one ohmmeter probe to terminal 4 (COM).
- STEP 19 Touch the other ohmmeter probe, one at a time, to the rest of the terminals without touching terminal 5 (NO).
- **STEP 20** The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 21 Reconnect the wires to the proper terminals as previously marked.



# **BAKE UNIT (Element)**

This part is located in the bottom of the oven and is used to cook foods.

#### CHECKING PROCEDURE

Obtain a properly working ohmmeter from your local store. We will be doing RESISTANCE checks. This is the safest way because the range is unplugged from the power source and avoids the possibility of you receiving an electrical shock.

STEP 1 Refer to the instructions that came with your ohmmeter to find the proper scale to measure 10-40 ohms. Set the ohms scale and ZERO the meter.

STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking or location on the bake unit. This procedure should assure that the right wire is reconnected to the right terminal.

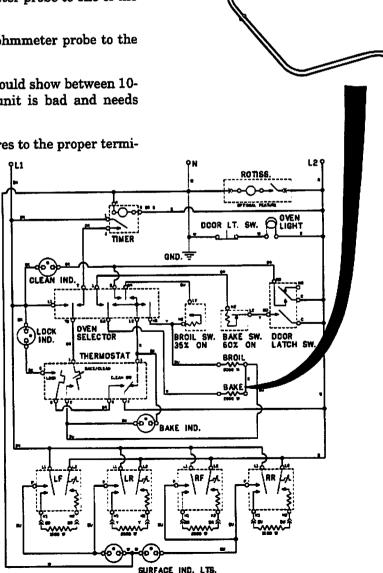
STEP 3 Touch one ohmmeter probe to one of the terminals.

STEP 4 Touch the other ohmmeter probe to the other terminal.

STEP 5 The ohmmeter should show between 10-40 ohms. If not, the bake unit is bad and needs replacing.

STEP 6 Reconnect the wires to the proper termi-

nals as previously marked.



# **BROIL UNIT (Element)**

This part is located in the top of the oven and is used to broil foods.

#### CHECKING PROCEDURE

Obtain a properly working ohmmeter from your local store. We will be doing RESISTANCE checks. This is the safest way because the range is unplugged from the power source and avoids the possibility of you receiving an electrical shock.

STEP 1 Refer to the instructions that came with your ohmmeter to find the proper scale to measure 10-40 ohms. Set the ohms scale and ZERO the meter.

STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking or location on the broil unit. This procedure should assure that the right wire is reconnected to the right terminal.

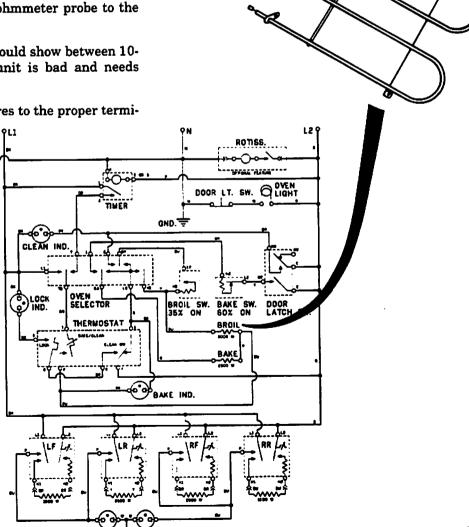
STEP 3 Touch one ohmmeter probe to one of the terminals.

STEP 4 Touch the other ohmmeter probe to the other terminal.

STEP 5 The ohmmeter should show between 10-40 ohms. If not, the broil unit is bad and needs replacing.

STEP 6 Reconnect the wires to the proper termi-

nals as previously marked.



SURFACE IND. LTS.

# **SURFACE UNIT (Element)**

This part is located on the top of electric ranges and is used in cooking foods.

#### CHECKING PROCEDURE

Obtain a properly working ohmmeter from your local store. We will be doing RESISTANCE checks. This is the safest way because the range is unplugged from the power source and avoids the possibility of you receiving an electrical shock.

STEP 1 Refer to the instructions that came with your ohmmeter to find the proper scale to measure 10-70 ohms. Set the ohms scale and ZERO the meter.

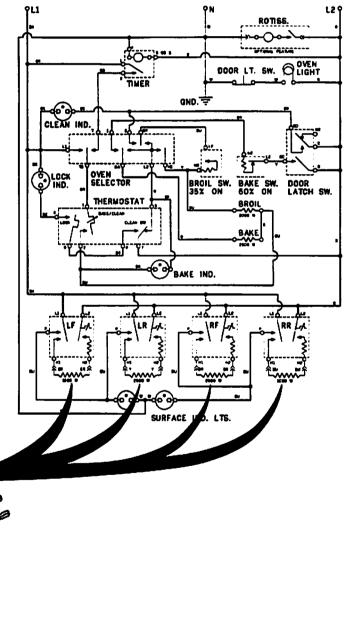
STEP 2 Pull the surface unit out of the receptacle. You may have to wiggle it back and forth while pulling.

STEP 3 Touch one ohmmeter probe to one of the plug-in's {terminal}.

STEP 4 Touch the other ohmmeter probe to the other plug-in (terminal).

STEP 5 The ohmmeter should show between 10-70 ohms. If not, the surface unit is bad and needs replacing.

STEP 6 Reconnect the wires to the proper terminals as previously marked.



### SELECTOR SWITCH

This part is located in the control panel. You set this selector switch to: BAKE - CLEAN - TIMED or BROIL.

#### CHECKING PROCEDURE

Obtain a properly working ohmmeter from your local store. We will be doing RESISTANCE checks. This is the safest way because the range is unplugged from the power source and avoids the possibility of you receiving an electrical shock.

- STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.
- STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the selector switch. This procedure should assure that the right wire is reconnected to the right terminal.

#### OFF POSITION

- STEP 3 Turn the knob to the OFF setting.
- STEP 4 Touch and hold one ohmmeter probe to the terminal in the upper left corner.
- STEP 5 Touch the other ohmmeter probe, one at a time, to the rest of the terminals.
- STEP 6 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 7 Move the ohmmeter probe to the right (next terminal) then check the rest of the terminals one at a time. Keep checking this way until all terminals have been checked.
- STEP 8 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.

#### BAKED POSITION

- STEP 9 Turn the knob to the BAKE setting.
- STEP 10 Touch one ohmmeter probe to terminal
- STEP 11 Touch the other ohmmeter probe to terminal TB.
- STEP 12 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.

- STEP 13 Touch one ohmmeter probe to terminal L1.
- STEP 14 Touch the other ohmmeter probe to the rest of the terminals without touching terminal TB.
- STEP 15 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 16 Touch one ohmmeter probe to terminal TR
- STEP 17 Touch the other ohmmeter probe to the rest of the terminals without touching terminal L1.
- STEP 18 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 19 Touch one ohmmeter probe to terminal I.2.
- STEP 20 Touch the other ohmmeter probe to terminal BA.
- STEP 21 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 22 Touch one ohmmeter probe to terminal L2.
- STEP 23 Touch the other ohmmeter probe to terminal BR.
- STEP 24 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 25 Touch one ohmmeter probe to terminal L2.
- STEP 26 Touch the other ohmmeter probe to the rest of the terminals without touching terminals BA or BR.
- STEP 27 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 28 Touch one ohmmeter probe to terminal BA.
- STEP 29 Touch the other ohmineter probe to the rest of the terminals without touching terminals L2 or BR.
- STEP 30 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.

- STEP 31 Touch one ohmmeter probe to terminal BR.
- STEP 32 Touch the other ohmmeter probe to the rest of the terminals without touching terminals L2 or BA.
- STEP 33 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.

#### **CLEAN POSITION**

- STEP 34 Turn the knob to the CLEAN setting.
- STEP 35 Touch one ohmmeter probe to terminal T.
- STEP 36 Touch the other ohmmeter probe to terminal TB.
- STEP 37 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 38 Touch one ohmmeter probe to terminal T.
- STEP 39 Touch the other ohmmeter probe to the rest of the terminals without touching terminal TB.
- STEP 40 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 41 Touch one ohmmeter probe to terminal TB.
- STEP 42 Touch the other ohmmeter probe to the rest of the terminals without touching terminal T.
- STEP 43 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 44 Touch one ohmmeter probe to terminal 1.
- STEP 45 Touch the other ohmmeter probe to terminal BA.
- STEP 46 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 47 Touch one ohmmeter probe to terminal 1.

- STEP 48 Touch the other chmmeter probe to the rest of the terminals without touching terminal BA.
- STEP 49 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 50 Touch one ohmmeter probe to terminal BA.
- STEP 51 Touch the other ohmmeter probe to the rest of the terminals without touching terminal 1.
- STEP 52 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- **STEP 53** Touch one ohmmeter probe to terminal 2.
- STEP 54 Touch the other ohmmeter probe to terminal BR.
- **STEP 55** The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 56 Touch one ohmmeter probe to terminal 2.
- STEP 57 Touch the other ohmmeter probe to the rest of the terminals without touching terminal BR.
- STEP 58 The chmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 59 Touch one ohmmeter probe to terminal BR.
- STEP 60 Touch the other ohmmeter probe to the rest of the terminals without touching terminal 2.
- STEP 61 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.

#### TIMED POSITION

- STEP 62 Turn the knob to the TIMED setting.
- STEP 63 Touch one ohmmeter probe to terminal T.
- STEP 64 Touch the other ohmmeter probe to terminal TB.

- **STEP 65** The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 66 Touch one ohmmeter probe to terminal T.
- STEP 67 Touch the other ohmmeter probe to the rest of the terminals without touching terminal TB.
- STEP 68 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 69 Touch one ohmmeter probe to terminal TB.
- STEP 70 Touch the other ohmmeter probe to the rest of the terminals without touching terminal T.
- STEP 71 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 72 Touch one ohmmeter probe to terminal L2.
- STEP 73 Touch the other ohmmeter probe to terminal BA.
- STEP 74 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 75 Touch one ohmmeter probe to terminal 1.2
- STEP 76 Touch the other ohmmeter probe to terminal BR.
- STEP 77 The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 78 Touch one ohmmeter probe to terminal L2.
- STEP 79 Touch the other ohmmeter probe to the rest of the terminals without touching terminals BA or BR.
- STEP 80 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.

#### **BROIL POSITION**

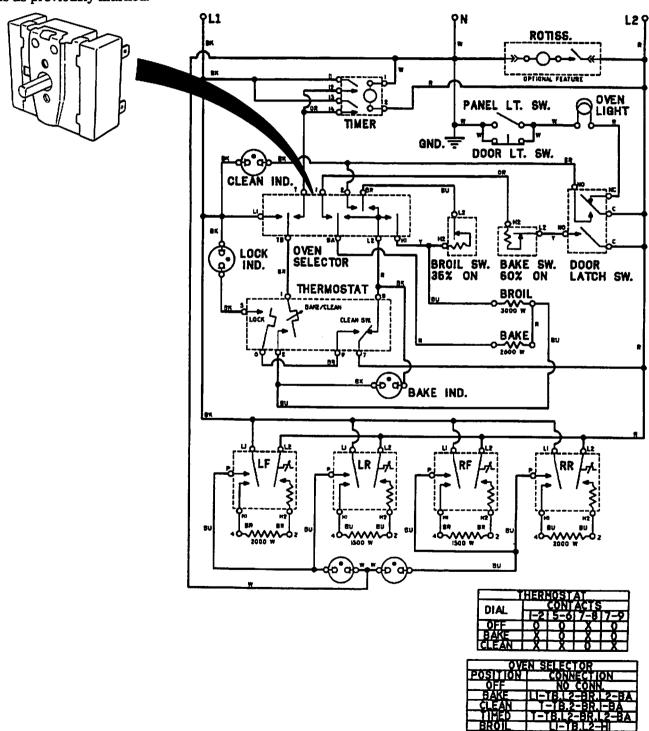
- STEP 81 Turn the knob to the BROIL setting.
- STEP 82 Touch one ohmmeter probe to terminal L1.
- STEP 83 Touch the other ohmmeter probe to terminal TB.
- **STEP 84** The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 85 Touch one ohmmeter probe to terminal L1.
- STEP 86 Touch the other ohmmeter probe to the rest of the terminals without touching terminal TB.
- STEP 87 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 88 Touch one ohmmeter probe to terminal TB.
- STEP 89 Touch the other ohmmeter probe to the rest of the terminals without touching terminal L1
- STEP 90 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.
- STEP 91 Touch one ohmmeter probe to terminal L2.
- STEP 92 Touch the other ohmmeter probe to terminal H1.
- **STEP 93** The ohmmeter should show ZERO resistance (continuity). If not, the switch is bad and needs replacing.
- STEP 94 Touch one ohmmeter probe to terminal
- STEP 95 Touch the other ohmmeter probe to the rest of the terminals without touching terminal H1.
- **STEP 96** The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.

STEP 97 Touch one ohmmeter probe to terminal H1.

STEP 98 Touch the other ohmmeter probe to the rest of the terminals without touching terminal L2.

STEP 99 The ohmmeter should show an open circuit when touching these other terminals. If not, the switch is bad and needs replacing.

STEP 100 Reconnect the wires to the proper terminals as previously marked.

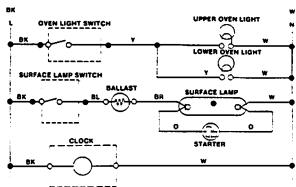


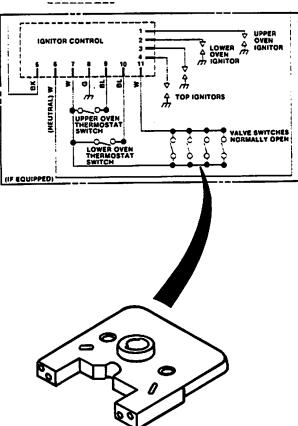
# SPARK IGNITOR SWITCH

These parts are located on top of the gas valve, behind the top burner knob. The switch contacts are normally open. They are in parallel to the spark module. Closing any of the switches by rotating the control to the "Lite" position applies power to the module.

#### CHECKING PROCEDURE

- STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.
- STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the ignitor switch. This procedure should assure that the right wire is reconnected to the right terminal.
- STEP 3 Rotate the ignitor switch to the "Lite" position.
- STEP 4 Touch one ohmmeter probe to one of the terminals on the ignitor switch.
- STEP 5 Touch the other ohmmeter probe to the other terminal on the ignitor switch.
- STEP 6 The ohmmeter should show ZERO resistance (continuity). If not, the ignitor switch is bad and needs replacing.
- STEP 7 Rotate the ignitor switch to the "Off" position.
- STEP 8 Touch one ohmmeter probe to one of the terminals on the ignitor switch.
- STEP 9 Touch the other ohmmeter probe to the other terminal on the ignitor switch.
- STEP 10 The ohmmeter should show an open circuit. If not, the ignitor switch is bad and needs replacing.
- STEP 11 Reconnect the wires to the proper terminals as previously marked.





# THERMOSTAT {Electric Ovens}

This part is located in the control panel with a sensing bulb located in the oven. This thermostat turns the bake and/or broil unit ON when the oven is cold and turns the bake and/or broil unit OFF when it is hot.

NOTE: Do not break the bulb or tube as this thermostat bulb contains sodium potassium alloy which may cause a small spark when exposed to air or moisture.

# CHECKING PROCEDURE

Obtain a properly working chmmeter from your local store. We will be doing RESISTANCE checks. This is the safest way because the range is unplugged from the power source and avoids the possibility of you receiving an electrical shock.

- STEP 1 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.
- STEP 2 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the thermostat. This procedure should assure that the right wire is reconnected to the right terminal.

#### **OFF POSITION**

- STEP 3 Turn the knob to the OFF setting.
- STEP 4 Touch one ohmmeter probe to terminal 7.
- STEP 5 Touch the other ohmmeter probe to terminal 8.
- STEP 6 The ohmmeter should show ZERO resistance (continuity). If not, the thermostat is bad and needs replacing.
- STEP 7 Touch one ohmmeter probe to terminal 7.
- STEP 8 Touch the other ohmmeter probe to the rest of the terminals without touching terminal 8.
- STEP 9 The ohmmeter should show an open circuit when touching these other terminals. If not, the thermostat is bad and needs replacing.

#### **BAKE POSITION**

- STEP 10 Turn the knob to any temperature in the BAKE setting.
- STEP 11 Touch one ohmmeter probe to terminal 1.
- STEP 12 Touch the other ohmmeter probe to terminal 2.
- STEP 13 The ohmmeter should show ZERO resistance (continuity). If not, the thermostat is bad and needs replacing.
- STEP 14 Touch one ohmmeter probe to terminal 7.
- STEP 15 Touch the other ohmmeter probe to terminal 8.
- STEP 16 The ohmmeter should show ZERO resistance (continuity). If not, the thermostat is bad and needs replacing.

# **CLEAN POSITION**

- STEP 17 Turn the knob to the CLEAN setting.
- STEP 18 Touch one ohmmeter probe to terminal 1.
- STEP 19 Touch the other ohmmeter probe to terminal 2.
- STEP 20 The ohmmeter should show ZERO resistance (continuity). If not, the thermostat is bad and needs replacing.
- STEP 21 Touch one ohmmeter probe to terminal 5.
- STEP 22 Touch the other ohmmeter probe to terminal 6.
- STEP 23 The ohmmeter should show ZERO resistance (continuity). If not, the thermostat is bad and needs replacing.

STEP 24 Touch one ohmmeter probe to terminal 7.

STEP 25 Touch the other ohmmeter probe to terminal 9.

STEP 26 The ohmmeter should show ZERO resistance (continuity). If not, the thermostat is bad and needs replacing.

STEP 27 Reconnect the wires to the proper termi-

