⚠WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

DIAGNOSTICS

Before servicing, perform the following checks:

- The most common cause for control failure is corrosion on connectors. Therefore, disconnecting and reconnecting wires will be necessary throughout test procedures.
- Check all connections before replacing components, looking for broken or loose wires, failed terminals, or wires not pressed into connectors far enough.
- All tests/checks should be made with a VOM or DVM having a sensitivity of 20,000 ohms per volt DC or greater.
- Resistance checks **must** be made with power cord unplugged from outlet, and with wiring harness or connectors **disconnected**.

Fahrenheit (° F) to Celsius (° C) Conversion

The default is Fahrenheit (° F).

1. Press the BROIL pad for 5 seconds. The temperature will be displayed in degrees Celsius indicated by the "C" in the temperature display.
2. To return the display to degrees Fahrenheit press the BROIL pad again for 5 seconds. "F" will show in the temperature display.

PROBLEM: Bake Temperature Needs Adjustment

1. Press BAKE pad for 5 seconds. The default temp. 0° or a previously entered offset temperature will show in the Temperature Display.
   - Press the TEMP pad "up" arrow (⏶) **to increase** the temperature in 10° F or 5° C increments.
   - Press the TEMP pad "down" arrow (⏷) **to decrease** the temperature in 10° F or 5° C increments.

   Maximum offset temperature adjustment is ±30° F or ±15° C.
2. Press the START pad to save the temp. adjustment.

IMPORTANT

Electrostatic Discharge (ESD) Sensitive Electronics

ESD problems are present everywhere. ESD may damage or weaken the electronic control assembly. The new control assembly may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.

- Use an anti-static wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance

  -OR-

  Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.
- Before removing the part from its package, touch the anti-static bag to a green ground connection point or unpainted metal in the appliance.
- Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.
- When repackaging failed electronic control assembly in anti-static bag, observe above instructions.

Programming the Cavity Size

When replacing the electronic control, be sure to program the cavity size:

1. Within 60 seconds of power up, press the following keys:

   STOP TIME, TEMP UP, COOK TIME, BAKE, BROIL, CLOCK, CANCEL, OVEN LIGHT.
2. Size is shown in display - "id 30". If not, press CLOCK key until "id 30" is displayed.
3. Press CANCEL.
4. To verify the programming:

   Press and hold CANCEL key for 5 seconds, then press and hold START key for 5 seconds.

   The fourth digit of the display (the first digit of the clock display) will read as follows: "0"

FAILURE/ERROR DISPLAY CODES

NOTES:

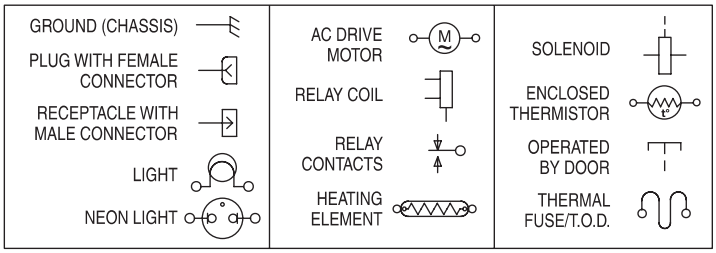
- Always disconnect power before touching internal parts of the oven!
- Upon replacement, immediately return old electronic oven control using the mailing label supplied with each new control.

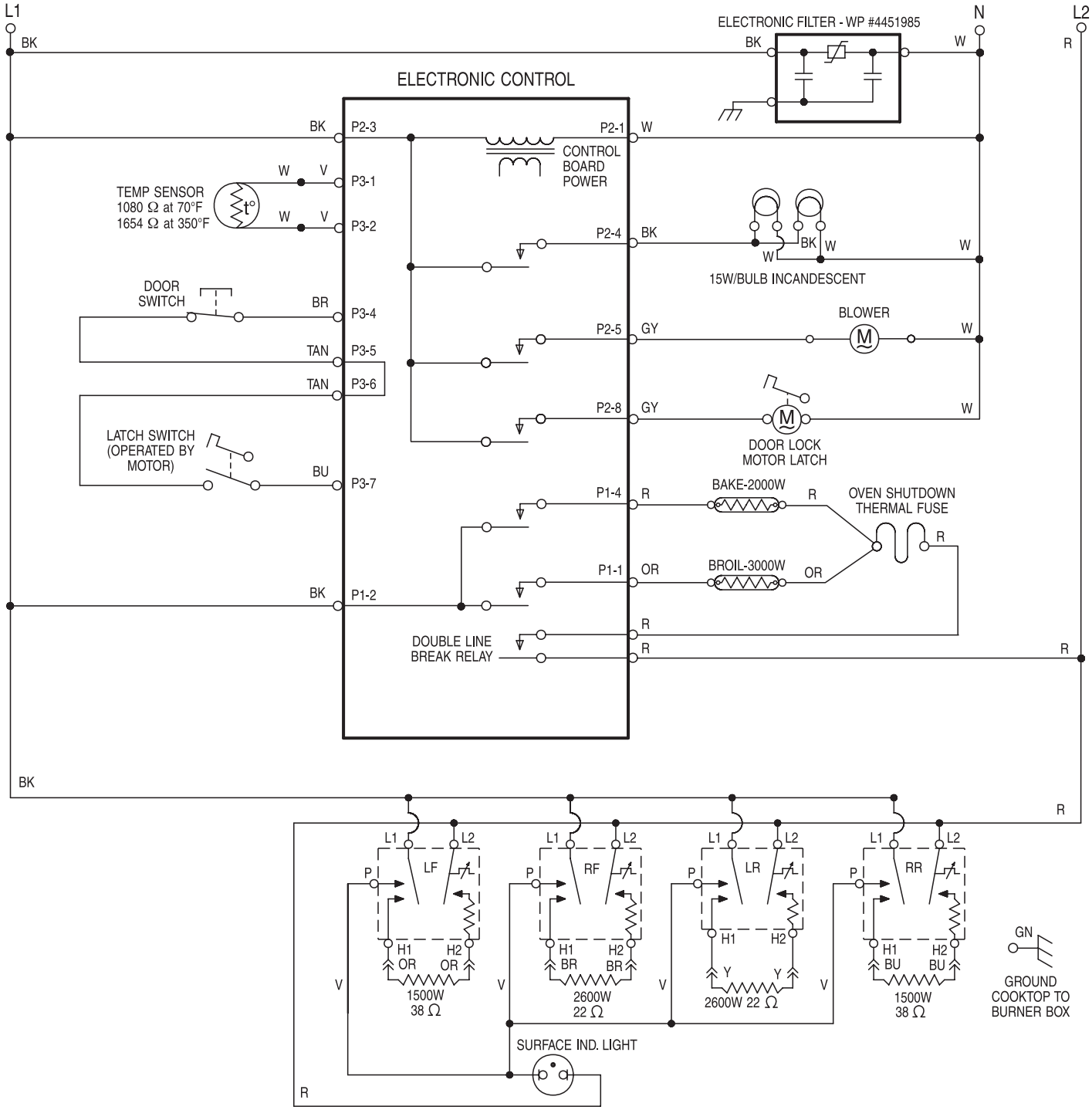
FAULT CODE	ERROR CODE	CODE EXPLANATION	RECOMMENDED REPAIR PROCEDURE
F0		Default F code - no failure	Will only be displayed if user presses and holds "CANCEL" key for 5 seconds and there is no pre-existing fault. Press CANCEL to clear display.
F1	**All E Codes**	Electronic control malfunction	1. Unplug range or disconnect power. 2. Replace control.
F2	**E0**	Key held down too long, or key is shorted	1. Check keypad connector for firm connection. 2. Press CANCEL. If error code returns after 60 sec., replace keypad. 3. Unplug range or disconnect power. 4. Replace control.
	E1	Keypad keytail not connected	
	E5 E6	CANCEL key drive line open	
F3	**E0**	Temperature sensor opened R=2875Ω (by spec.)	1. Unplug range or disconnect power. 2. Check sensor connection. 3. Measure sensor resistance (1080 Ω at 70° F [21° C]. Add 2 Ω per degree F). 4. If resistance is not valid, replace sensor. 5. If wires are good, then check for welded-closed relays on the control.
	E1	Temperature sensor shorted R=825Ω (by spec.)	
	E2	Oven temp too high - over 575° F (302° C) in COOK mode	
	E3	Oven temp too high - over 950° F (510° C) in CLEAN mode	
F5	**E0**	Door is open, but latch is locked (condition exists when door switch is closed indicating an open door, and latch switch is closed indicating a locked door).	1. Unplug range or disconnect power. 2. Check the latch assembly: latch arm pivot joint, arm/motor connection, plunger and hook springs. 3. Check the Latch Motor: - Check for firm electrical connections. - Disconnect the two wires from the motor and measure the resistance of the motor. The resistance should be approximately 2450 Ω. If the motor is open (∞Ω) or shorted (0Ω), it should be replaced. 4. Check the Latch Switch. Disconnect it and use a continuity tester: - Door latched = switch closed, continuity should read 0Ω. - Door unlatched = switch open, continuity should read ∞Ω. 5. Check Door Open/Closed Switch. Disconnect it and use a continuity tester: - Door open = switch open, continuity should read ∞Ω. - Door closed = switch closed, continuity should read 0Ω. 6. Check power and element connections.
	E1	Self-clean latch will not lock or will not unlock.	

WIRE HARNESS SCHEMATIC

NOTES:

- When replacing the electronic control, be sure to program the cavity size. See “Programming the Cavity Size” on page 1.
- Dots indicate connections or splices.
- Circuit shown in STANDBY/OFF mode with oven door closed.

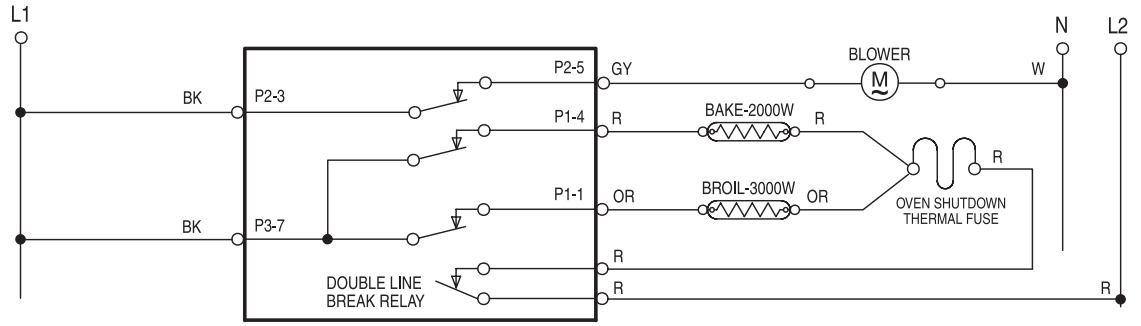




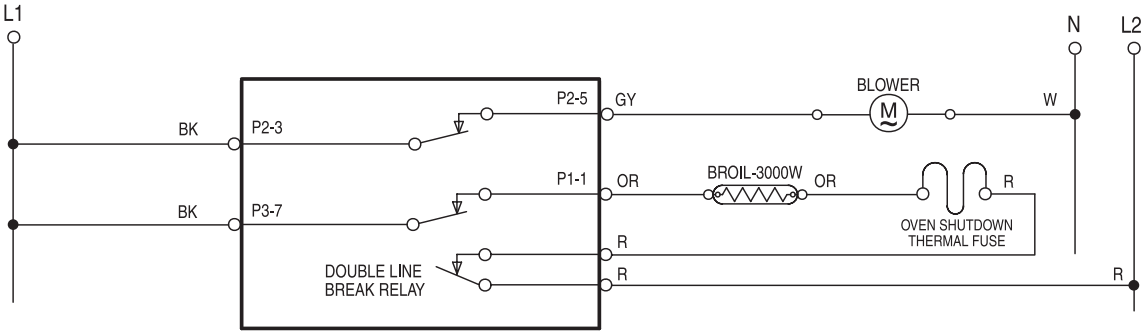
OVEN STRIP CIRCUITS

The following individual circuits are for use in diagnosis.
Before starting diagnosis, check the line voltage and for blown fuses.

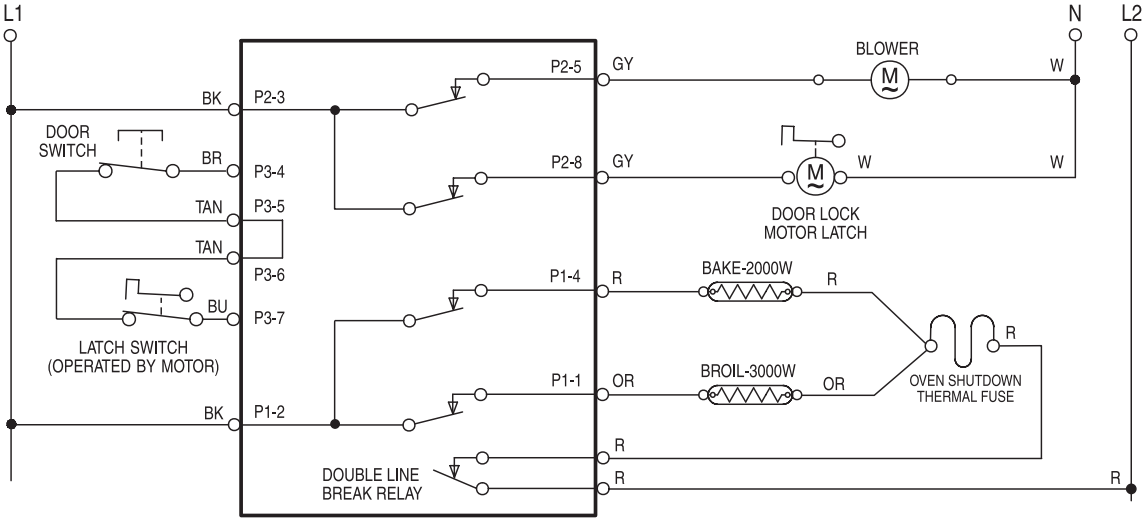
BAKE AND PREHEAT-BAKE



BROIL

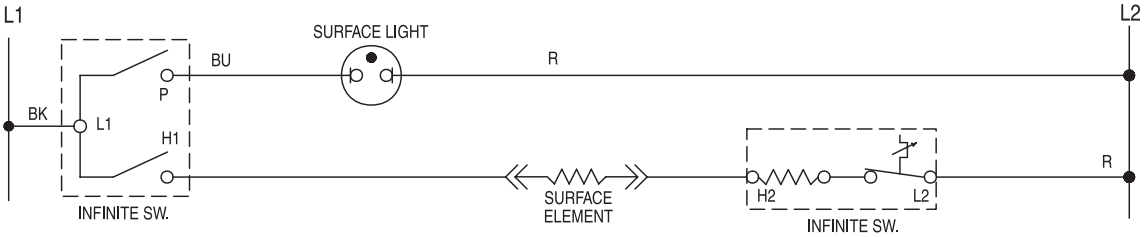


CLEAN AND PREHEAT-CLEAN

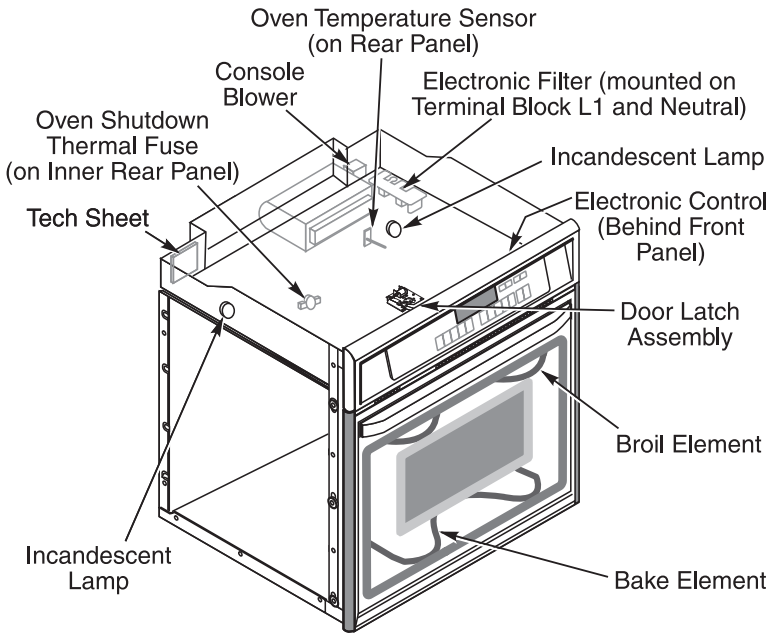


SURFACE UNIT

(TYPICAL)



COMPONENTS (Cook Top components not shown)



RELAY LOGIC

MODES \ RELAYS	BAKE	BROIL	OVEN LIGHT	BLOWER
OFF	O	O	⊠	⊠
PREHEAT-BAKE	+	+	⊠	X
BAKE	X	+	⊠	X
BROIL	O	X	⊠	X
PREHEAT-CLEAN	+	+	O	X
CLEAN	X	+	O	X

RELAY LOGIC KEY

O - OFF

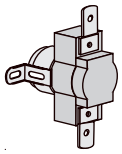
X - ON

\+ - CYCLING

⊠ - ON OR OFF

OVEN SHUTDOWN THERMAL FUSE

The oven shutdown thermal fuse is located at the back of the oven. It will shut down the elements if the temperature at the back of the oven exceeds component limits.



Verify that the oven shutdown thermal fuse is OK.

To replace this thermal fuse, refer to chart at right for correct part number.

Thermal Fuse Part No.	Opening Temp. °F	Reclose Temp. °F	Marking (with Black Letters)
4452223	266°F ± 10°F	–31°F MAX	Pink/Wht Stripe
4451442	248°F+18°F to 248°F – 0°F		Yellow/Wht Stripe
4450934	338°F ± 11.7°F		Red
4450334	275°F ± 11.7°F		Orange/Wht Stripe
4450250	320°F ± 11.7°F		Blue
4450249	302°F ± 11.7°F		Green/Wht Stripe
8300802	230°F+18°F to 230°F – 0°F		Blue/Wht Stripe

THE FOLLOWING COMPONENTS CAN BE TESTED AT THE CONTROL PANEL(*):

COMPONENTS	FRONT/REAR SERVICEABLE	CHECK POINTS	RESULTS
Electronic Control	Front	--	--
Membrane Switch	Front	--	--
Oven Lights	Light Bulbs - Front Light Assy. - Rear	--	--
Electronic Filter	Front	--	--
Door Switch	Front	P3-4 (BR) to P3-5 (TAN)	Door Open = Open Circuit Door Closed = Closed Circuit
Latch Switch	Front	P3-7 (BU) to P3-6 (TAN)	Locked = Closed Circuit Unlocked = Open Circuit
Latch Motor	Front	P2-8 (GY) to Neutral (W)	Approximately 2450 Ω
Oven Temperature Sensor	Front	P3-1 (V) to P3-2 (V)	1080 Ω @ 70°F (21°C)
Bake Element	Rear	P1-4 (R) to Red Wire at DBL Relay	25 Ω to 30 Ω
Broil Element	Front	P1-1 (OR) to Red Wire at DBL Relay	17 Ω to 20 Ω
Console Blower	Rear	P2-5 (GY) to Neutral (W)	10 Ω to 15 Ω
Oven Shutdown Thermal Fuse	Rear	P1-1 (OR) **or** P1-4 (R) to Red Wire at DBL Relay	Closed Circuit

(*) Short double line break relay red wire terminal fastons