⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all 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.
- All tests/checks should be made with a VOM or DVM having a sensitivity of 20,000 ohms per volt DC or greater.
- Check all connections before replacing components, looking for broken or loose wires, defective terminals, or wires not pressed into connectors far enough.
- Voltage checks **must** be made with all connectors attached to the boards.
- Resistance checks **must** be made with power cord unplugged from outlet, and with wiring harness or connectors **disconnected**.

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 it's 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 precautions.

PROBLEM: Bake Temperature Needs Adjustment

1. Press BAKE pad for 5 seconds. The default temp. 0° or a previously entered offset temp. will show in the Temp. 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.

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.

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.

FAILURE/ERROR DISPLAY CODES

FAULT CODE	ERROR CODE	CODE EXPLANATION	RECOMMENDED REPAIR PROCEDURE
F0	All E Codes	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 again to clear display.
F1	All E Codes	Electronic control malfunction	Replace control if the E code is not E3.
F2	E0	Keypad not connected	1. Check keypad connector for firm connection. 2. Press CANCEL. If error code returns after 60 sec., replace keypad.
	E2 E3	Key held down too long, or key is shorted	
F3	E0	Temperature sensor opened	1. Check sensor connection. 2. Measure sensor resistance (1080Ω at 70° F. Add 2Ω per degree.) 3. If resistance is not valid, replace sensor. 4. If sensor resistance and connections are good, then the oven cavity temperature must have exceeded a safe level. Check for welded-closed relays on the control.
	E1	Temperature sensor shorted	
	E2 E3	Oven temp. too high	
F5	E0	Door is open, but latch is locked	1. Check the latch assembly: latch arm pivot joint, arm/solenoid connection, solenoid spring, and spring washer. 2. Check the Latch Solenoid: - Check for firm electrical connections. - Disconnect the two wires from the solenoid and measure the resistance of the solenoid. A small resistance (approx. 175Ω) is normal. If the solenoid is open (∞Ω) or shorted (0Ω), it should be replaced. 3. Check the Latch Switch: Disconnect it and use a continuity tester: - Door latched = switch closed, continuity should be read (0Ω). - Door unlatched = switch open, continuity should be read (∞Ω). 4. Check Door Open/Closed Switch: Disconnect it and use a continuity tester: - Door open = switch (1) closed circuit, switch (2) open circuit. - Door closed = switch (1) open circuit, switch (2) closed circuit.
	E1	Self-clean latch will not lock	
	E2	Self-clean latch will not unlock	
F6	E0	Return line not connected	If switch pulse return line is not connected, electronic control will display F6 within 60 seconds after power up.
F7	E0	Common switch wire is defective	Common wire (+5VDC) to latch switch, and to door switch is shorted to chassis ground or neutral. A double oven will have two of each switch and one common wire. 1. Check connections at control and at the latch switch and door switch. 2. If all connections are good, then check the individual switches as outlined for the F5 failure.

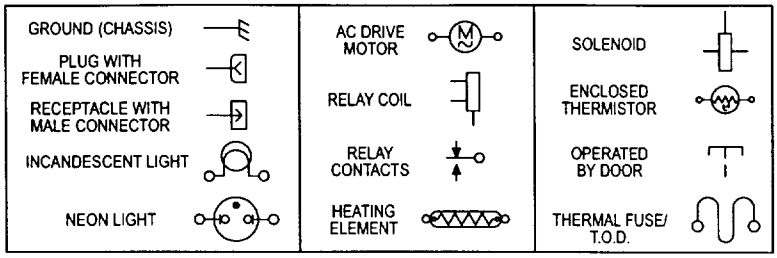
NOTE: Reference to double oven does not apply to all models.

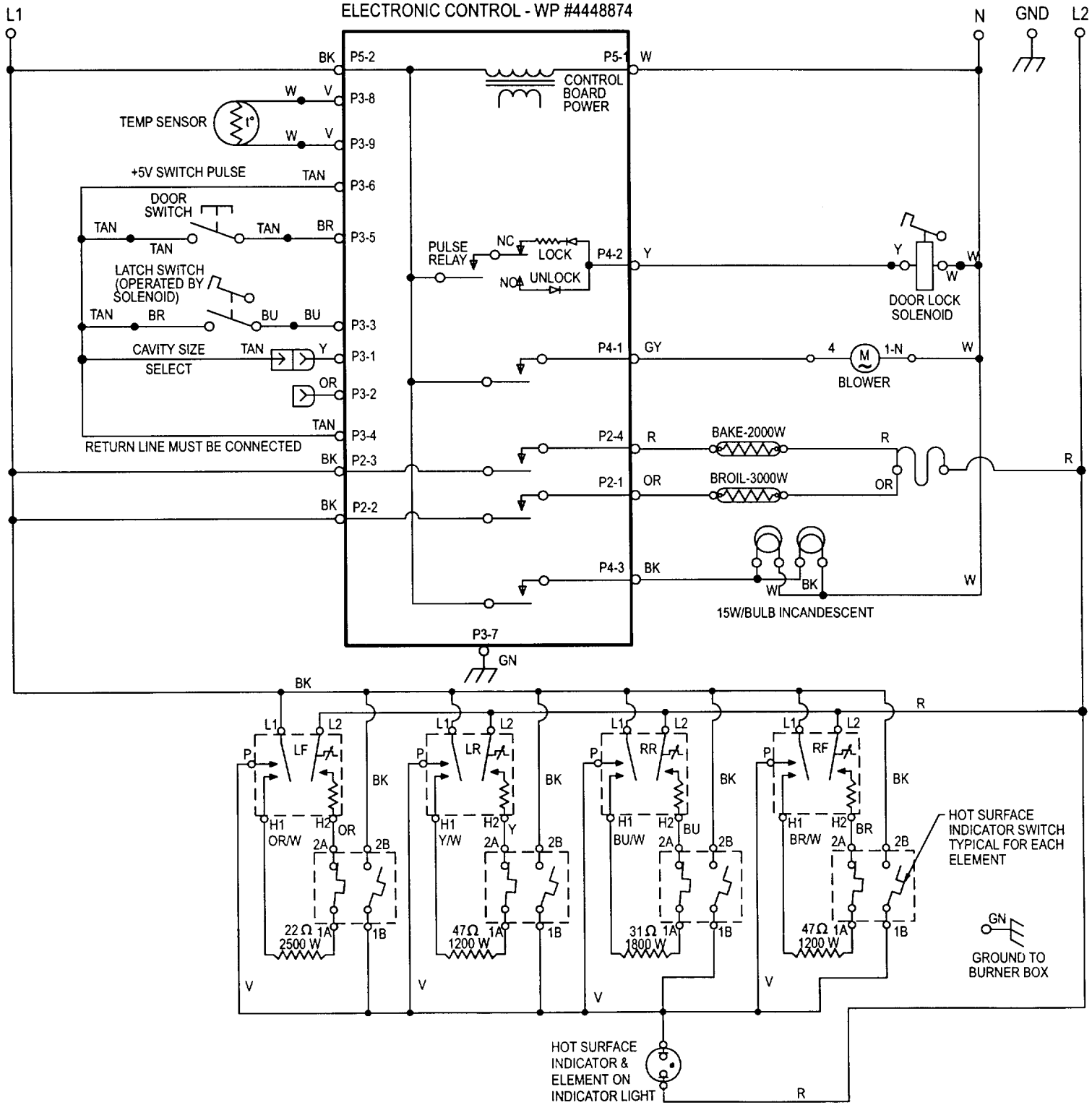
WIRE HARNESS SCHEMATIC

NOTES:

DOTS INDICATE CONNECTIONS OR SPLICES.

CIRCUIT SHOWN IN STANDBY/OFF MODE WITH OVEN DOOR CLOSED.

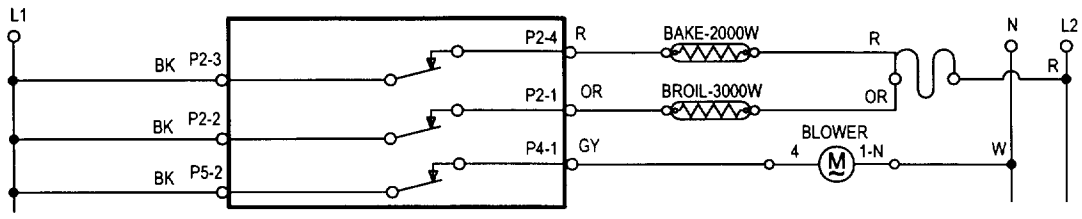




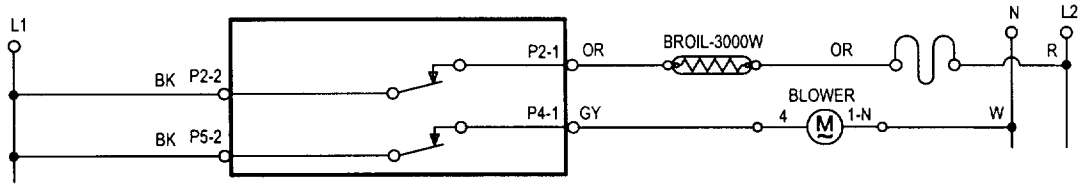
OVEN STRIP CIRCUITS

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

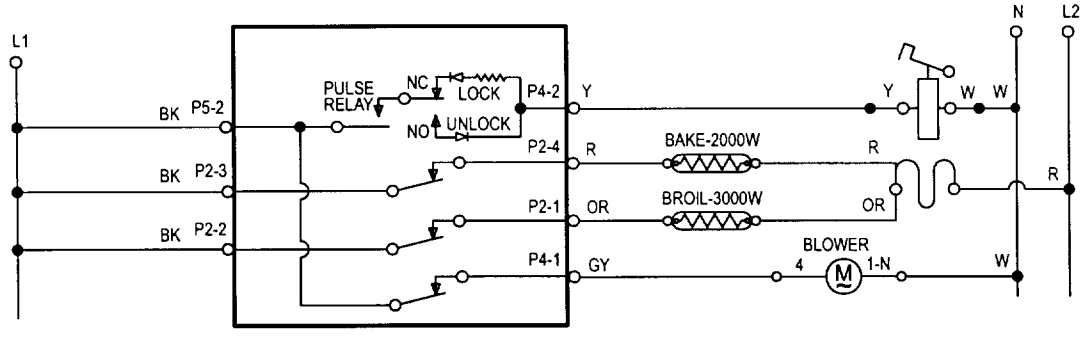
BAKE AND PREHEAT BAKE



BROIL

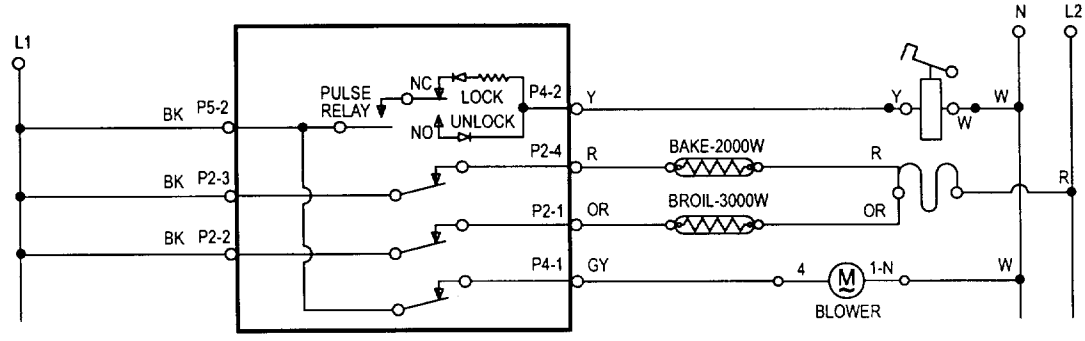


CLEAN (Above 600°F)



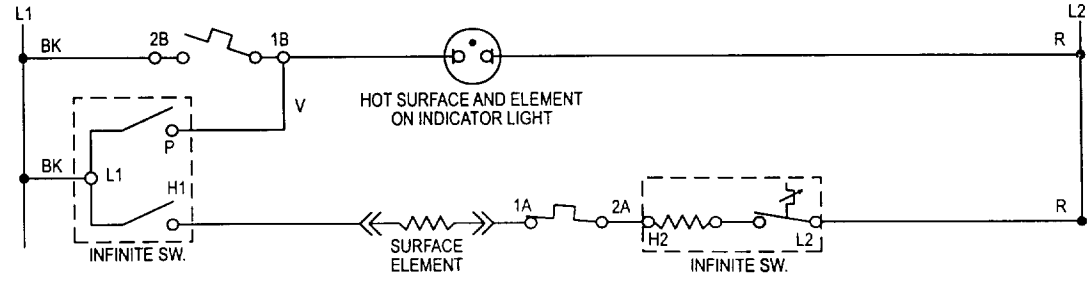
PREHEAT CLEAN

(Below 600°F)

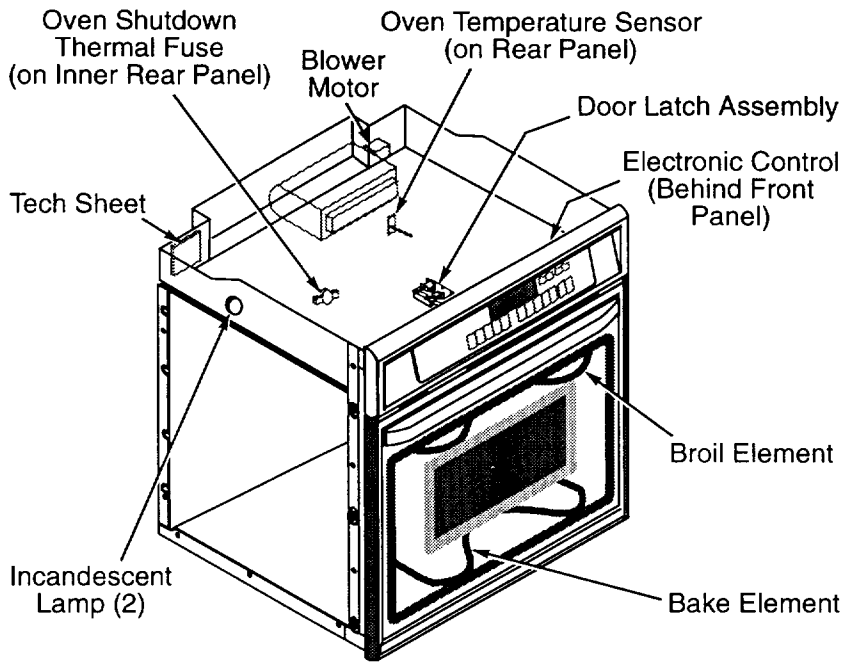


SURFACE UNIT

(Typical)



COMPONENTS (Cooktop components not shown)



ELECTRONIC CONTROL PINOUTS		
PIN	FUNCTION	COLOR
P2-1	BROIL	OR
SPACE		
P2-2	L1	BK
P2-3	L1	BK
P2-4	BAKE	R
P3-1	CAVITY SELECT 30"	Y
P3-2	CAVITY SELECT 27"	OR
P3-3	LATCH SWITCH	BU
P3-4	RETURN LINE	TAN
P3-5	DOOR SWITCH	BR
P3-6	+5 VOLT SW PULSE	TAN
P3-7	EARTH GROUND	GR
P3-8	OVEN SENSOR	V
P3-9	OVEN SENSOR	V
P4-1	BLOWER	GY
P4-2	SOLENOID	Y
P4-3	LIGHT	BK
P4-4	NOT CONNECTED	
P5-1	NEUTRAL	W
P5-2	L1	BK

ELECTRICAL COMPONENTS KEY

OVEN COMPONENT	FRONT / REAR SERVICEABLE
Electronic Control	Front
Membrane Switch	Front
Door Switch	Front
Latch Switch	Front
Latch Solenoid	Front
Oven Temperature Sensor	Front
Bake Element	Front
Console Blower	Rear
Broil Element	Front
Incandescent Lights	Light Bulb - Front Light Assy. - Rear
Thermal Fuse/T.O.D.	Rear

RELAY LOGIC

MODES \ RELAYS	BAKE	BROIL	OV LT	BLOWER	PULSE RELAY	LOCK/UNLOCK
OFF	O	O	⊠	⊠	O	O
■ PREHEAT-BAKE	+	+	⊠	X	O	O
BAKE ■	X	+	⊠	X	O	O
BROIL	O	X	⊠	X	O	O
▲ PREHEAT-CLEAN	+	X	O	X	✳	✳
CLEAN ▲	X	+	O	X	O	O

RELAY LOGIC KEY

O - OFF

X - ON

\+ - CYCLING (MAX PERIOD = 60 SEC)

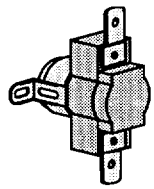
⊠ - ON OR OFF

✳ - PULSED FOR 1/2 SEC

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 okay.



THE FOLLOWING COMPONENTS CAN BE TESTED AT THE CONTROL PANEL:

COMPONENTS	FRONT/REAR SERVICEABLE	CHECK POINTS	RESULTS
Door Switch	Front	P3-5 (BR) to P3-6 (TAN)	Door Open = Closed Circuit Door Closed = Open Circuit
Door Lock Solenoid (with Door Closed)	Front	P4-2 (Y) to Neutral (W)	50 Ω
Oven Temperature Sensor	Front	P3-8 (V) to P3-9 (V)	1080 Ω @ 70°F
Blower	Rear	P4-1 (GY) to Neutral (W)	10 Ω to 15 Ω
Oven Shutdown Thermal Fuse	Rear	P2-1 (OR) or P2-4 (R) to Red Wire at Terminal Block	Closed Circuit
Bake Element	Front	P2-4 (R) to Red Wire at Terminal Block	25 Ω to 30 Ω
Broil Element	Front	P2-1 (OR) to Red Wire at Terminal Block	45 Ω to 55 Ω
Latch Switch	Front	P3-3 (BU) to P3-6 (TAN)	Door Unlocked = Open Circuit Door Locked = Closed Circuit

MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING UNITED STATES PATENTS:

4,102,322 4,364,589 4,467,184

OTHER PATENTS PENDING

PART NO. 3192239

NOTE: This sheet contains important Technical Service Data

FOR SERVICE TECHNICIAN ONLY
DO NOT REMOVE OR DESTROY