Freestanding Electric Range — Technical Information

LER3330AAB/W

- Due to possibility of personal injury or property damage, always contact an authorized technician for servicing or repair of this unit.
- Refer to Service Manual 16023528 for detailed installation, operating, testing, troubleshooting, and disassembly instructions.

⚠ CAUTION

All safety information must be followed as provided in Service Manual 16023528.

⚠ WARNING

To avoid risk of electrical shock, personal injury or death; disconnect power to oven before servicing, unless testing requires power.

Model	LER3330AA*
Power Source @ 240 V (208 V)	
Electrical rating	10.~~7~~ kW (8.1 kW)
Amperage	40 Amp
Frequency	60 Hz
Element Wattage @ 240 V	
Ribbon element, 6 inch	(2 ea) 1200*
Ribbon element, 8 inch	2500*
Ceran element, Dual	(Inner) 1500* (Outer) 700*
Oven Wattage @ 240 V (208 V)	
Bake 4 pass	2,600 (1950)
Broil 4 pass	3000 (2250)
Oven Interior Dimensions in. (cm)	
Height	16.5 (41.9)
Width	23 (58.4)
Depth	18.125 (46)
Product Exterior Dimensions in. (cm)	
Height overall	45.25 (114.9)
Width	29.875 (75.9)
Depth oven door closed, excluding handle	25 (63.5)
Features	
Oven Capacity (cubic feet)	4.0
Manual Oven Light	Incandescent
Oven Window	Large
Oven racks	2
Timer	Yes
Delay Start	Yes
Storage drawer	Removable
Handle	Towel Bar
Weight lbs. (kg)	
Crated	185 (83.9)

***Rating of 208 VAC is approximately 80% of 240 VAC value.**

Component Testing Procedures

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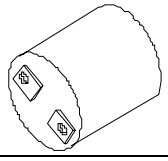
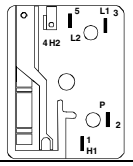
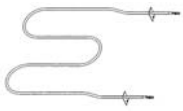
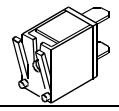
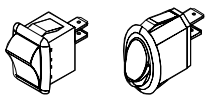
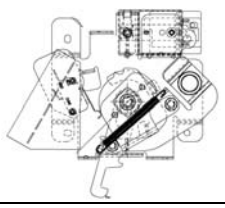
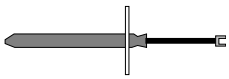
Illustration	Component	Test Procedure	Results
	Oven light socket	Remove one wire from receptacle and test resistance of terminals..... Measure voltage at oven light.....	Indicates continuity with bulb screwed in. 120 VAC, see wiring diagram for terminal identification. If no voltage is present at oven light, check wiring or light switches.
	Push-to-Turn Infinite Switch	Connect Volt-ohms meter to H1 and H2. Measure the following for voltages at LO, MED, HI: H1 to H2.....	**Approximate** **Time On** **Time Off** LO 5% 95% MED (4-5) 35% 65% HI 100% 0% 240 VAC, if not replace switch.
	Bake element	Disconnect wire leads to element and measure resistance of terminals..... Measure voltage at bake element.....	Approximately 21.7 Ω, if not replace. 240 VAC, see wiring diagram for terminal identification. If no voltage is present at bake element, check wiring.
	Broil element	Disconnect wire leads to element and measure resistance of terminals..... Measure voltage at broil element.....	Approximately 18.7 Ω, if not replace. 240 VAC, see wiring diagram for terminal identification. If no voltage is present at broil element, check wiring.
1200W (2 ea)	Ribbon element, 6”	Disconnect wire leads to element and measure resistance of terminals..... Measure voltage at ribbon element.....	Approximately 43 to 49 Ω, if not replace. 240 VAC, see wiring diagram for terminal identification. If no voltage is present element, check wiring.
2500W	Ribbon element, 9”	Disconnect wire leads to element and measure resistance of terminals..... Measure voltage at ribbon element.....	Approximately 20 to 24 Ω, if not replace. 240 VAC, see wiring diagram for terminal identification. If no voltage is present at element, check wiring.
1500W Inner 700W Outer	Ceran element, Dual	Disconnect wire leads to element and measure resistance of terminals..... Measure voltage at element	Inner – 36 – 40 Ω, if not replace. Outer – 76 – 84 Ω, if not replace. 240 VAC, see wiring diagram for terminal identification. If no voltage is present at element, check wiring.
	Oven indicator light and Surface indicator light	Measure voltage at indicator light.....	If voltage is present and light does not work, replace light. If no voltage is present at indicator light check wiring.
	Rocker switch	Measure continuity of switch positions: Closed..... Open.....	 Continuity Infinite
	Manual Latch Assembly with switch	Disconnect wires and test for continuity per wiring diagram.....	See wiring diagram for schematic layout. Refer to Parts Manual for replacement components. **NOTE:** If latched is moved to LOCK position during Bake Or Broil, the control will cancel that function.
	Oven temperature sensor	Measure resistance.	Approximately 1000 Ω at room temperature 80°F.

Component Testing Procedures

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Illustration	Component	Test Procedure	Results
M1 Controlled	Oven temperature adjustment	Press ***Bake*** pad. Enter ***550*** on the digit-pad. Immediately press and hold ***Bake*** pad for 3 to 5 seconds. Oven can be adjusted from -35 to +35 degrees in 5-degree increments by pressing ***More +*** or ***Less -*** pads. To avoid over adjusting the oven, move temperature 5 degrees each time. Wait 4 seconds for the data entry timer to expire to accept the change. Temperature adjustment will be retained even through a power failure.	While increasing or decreasing oven temperature, this does not affect self-cleaning temperature.
M1 Controlled	Temperature display	Press and hold ***Cancel*** and ***Bake*** pads for 3 to 5 seconds. Press ***More +*** or ***Less -*** pads to change.	This mode enables the user to indicate °F or °C on the display.
M1 Controlled	Clock Display	Press and hold ***Cancel*** and ***Clock*** pads for 3 to 5 seconds.	Allows clock to be toggled On or OFF.
M1 Controlled	24 Hour Clock	Press and hold ***Cancel*** and ***Delay*** pads for 3 to 5 seconds. Press ***More +*** or ***Less -*** pads to change.	Allows the time on the clock to be toggled from 12 hour or 24 hour display.
M1 Controlled	Factory Default	Press and hold ***Cancel*** and ***Keep Warm*** pads for 3 to 5 seconds until beep sounds.	Allows the clock to be reset to factory settings.
M1 Controlled	Twelve hour off	Control will automatically cancel any cooking operation and remove all relay drives 12 hours after the last pad touch.	See Sabbath mode to disable.
M1 Controlled	Sabbath Mode	Hold ***Clock*** button for 3 to 5 seconds to activate Sabbath mode. Hold ***Clock*** for 3 to 5 seconds to disable Sabbath mode. Desired bake function must be initiated before entering Sabbath mode.	"SAb" will be displayed and flash for 5 seconds then remain on until timed-out or cancelled. The status "SAB" is NOT fault code 5A6. All pad inputs are disabled except for CANCEL and CLOCK pads. This mode disables the normal 12 hour shutoff to allow operation of the bake mode for a maximum of 72 hours. The oven light is not disabled.
M1 Controlled	Child lock out	Press and hold ***Cancel*** and ***Cook & Hold*** pads for 3 to 5 seconds until beep sounds. To reactivate the control, press and hold ***Cancel*** and ***Cook & Hold*** pads for 3 to 5 seconds.	This is a safety feature that can be used to prevent children from accidentally programming the oven. It disables the electronic oven control. Child lockout features must be reset after a power failure.
M1 Controlled	Diagnostic Code Display	Press and hold ***More +*** pad ***within 60 seconds of powering up the unit.*** Cycle through the codes using the ***More +*** or ***Less -*** pads.	The last 5 diagnostic codes will be stored in the non-volatile memory. See **"Description of Error Codes"** for explanation.

Component Testing Procedures

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"Quick Test" Mode for Electronic Range Control

Follow procedure below to use the quick test mode. Entries must be made within 32 seconds of each other or the control will exit the quick test mode.

1. **Press and hold *Cancel*** and ***Broil*** pads for 3 seconds.
2. Once the control has entered the "Quick Test" mode, release both pads.
3. Press each of the following pads indicated in the table below.

NOTE: The first time one of the following pads are pressed it will activate the response. The second time the pad is pressed it will deactivate the response.

NOTE: This mode must be entered within the first 5 minutes after power up.

NOTE: If the temperature sensor is greater than 400°F or if the temperature sensor reaches 400°F while under test, the Quick Test mode will be disabled.

Display will indicate the following:

Key	Operation
[Bake]	**Bake** relay activated, **DLB** relay activated
[Broil]	**Broil** relay activated, **DLB** relay activated
[Keep Warm]	**DLB** relay activated
[Cook&Hold]	Last Diagnostic Code displayed
[Clean]	Beep sounds
[Delay] (M1)	**EEPROM Version Number** displayed
[Timer]	**Main Code Version Number** displayed
[Clock]	**All Segments** On
[More +]	**Even Segments** On
[Less –]	**Odd Segments** On
[Cancel]	End Factory Test Mode

Description of Error Codes

Error diagnostic codes can only be viewed by entering the Diagnostic Code Display Mode.
Each error code consists of four digits and each digit is described in the following table.

Digit	Description	
1st	Primary System:	1 – Local to the control circuit board 3 – Sensor or meat probe 4 – Control input 9 – Door lock
2nd	Measurable:	d – Diagnostic: measurable parameter c – Control related, replace control
3rd	Secondary System:	Sequential numbering
4th	Oven Cavity:	1 – Upper oven (or single cavity oven) 2 – Lower oven c – Control specific

Diagnostic Code Display Mode may be started only within 60 seconds when powering up the control.

Component Testing Procedures

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Diagnostic Code Checking

Code	Description	When Checked	Detection
1c1c	Shorted key	Always	1 minute
1c2c	Keyboard tail disconnected	Always	1 minute
1c31	Cancel key circuit problem	Always	20 seconds
1c6c	EEPROM error	When accessing EEPROM	3 tries
1c7c	Control not calibrated	Always	3 tries
1c8c	Cooking program error	Cook or clean programmed	3 tries
1d11	Runaway temp (650°F), door unlocked	Latch unlocked	1 minute
1d21	Runaway temp (950°F), door locked	Latch locked	1 minute
3d11	Sensor open	Cook or clean active	20 seconds
3d21	Sensor shorted	Cook or clean active	20 seconds
9d11	Latch will not lock	Latch should be locked	See Note 6

Diagnostic Code Handling

Code	Measurable	What is Displayed	Action Taken By Control
1c1c	Keypress	Nothing	Disables audible for affected key depression Disables all outputs [1, 2] Disables lights and timers
1c2c	Keyboard loop improper value	Nothing	Disables audible for key depression Disables all outputs [1] Disables lights and timers
1c31	Cancel key improper value	BAKE flashes [3]	Disables all outputs for cavity [1]
1c6c	No response from EEPROM	Nothing	Disables all outputs [1]
1c7c	Calibration value out of range	"CAL" in the time digits	Completely disables oven [4]
1c8c	CRC invalid	Nothing	Cancels active cook function
1d11	Sensor resistance > 2237 Ohms	BAKE flashes [3]	Disables all cook function for cavity
1d21	Sensor resistance > 2787 Ohms	BAKE flashes [3]	Disables all cook function for cavity
3d11	Sensor resistance > Infinite Ohms	BAKE flashes [3]	Disables all cook function for cavity
3d21	Sensor resistance > 0 Ohms	BAKE flashes [3]	Disables all cook function for cavity
4d11	Door switch not closed when door is locked	Nothing	Disables Clean and Lockout functions [5]
4d51	Door switch not open or closed	Nothing	Disables Clean and Lockout functions [4, 5] Turn off light and disable light from door switch
9d11	Lock switch not closed	LOCK flashes [3]	Disables Clean and Lockout functions [4]

Component Testing Procedures

WARNING

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NOTES:

1 "Action Taken" applies as long as the condition exists. If the condition goes away, the control recovers.

2 If there is a cook function or timer active, the function continues. The user cannot edit the function, and [Cancel] will cancel the cook mode.

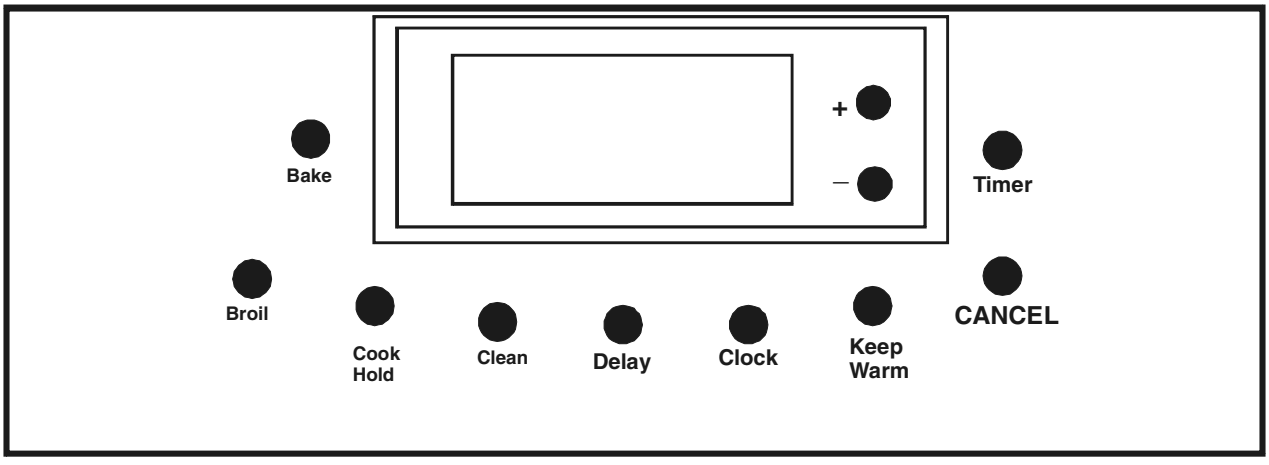
3 Flash rate: 0.2 seconds on, 0.1 second off. Pressing any key will clear the display until the fault clears and is re-triggered.

4 "Action Taken" applies until there is a POR (Power On Reset ["hard reset"]).

5 If the control believes the door is locked, unlock it when the function cancels and the cavity temperature cools.

6 Special conditions for latch faults (9dxx):

- A known good **unlock** position is defined as when the unlock switch reads closed and lock switch reads open.
- A known good **lock** position is defined as when the unlock switch reads open and lock switch reads closed.
- A **faulted switch** means the switch input is reading an invalid state, neither open nor closed.
- If at POR, the latch is not at a known good unlock position:
- Affected DLBs (Double Line Breaks) and loads are disabled during detection.
- If the control is in a known good unlock position and the lock switch becomes faulted:
    - The control will not fault.
    - If a function requiring latch movement is attempted while the lock switch is faulted, the control will sound an error tone and the function will be disabled.



M1 Control

Wiring Diagram and Schematic

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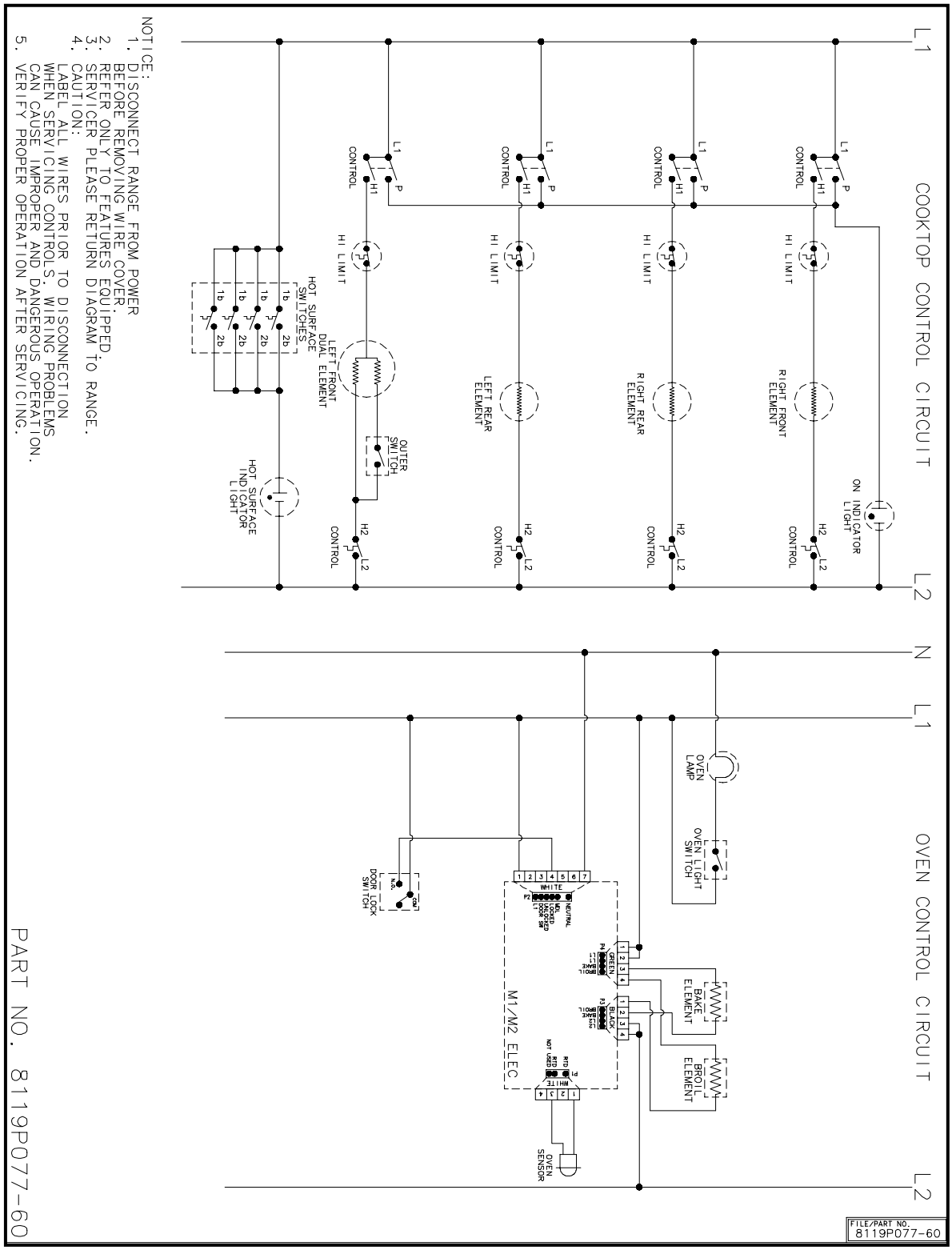

Control Circuits

Wiring Diagram and Schematic

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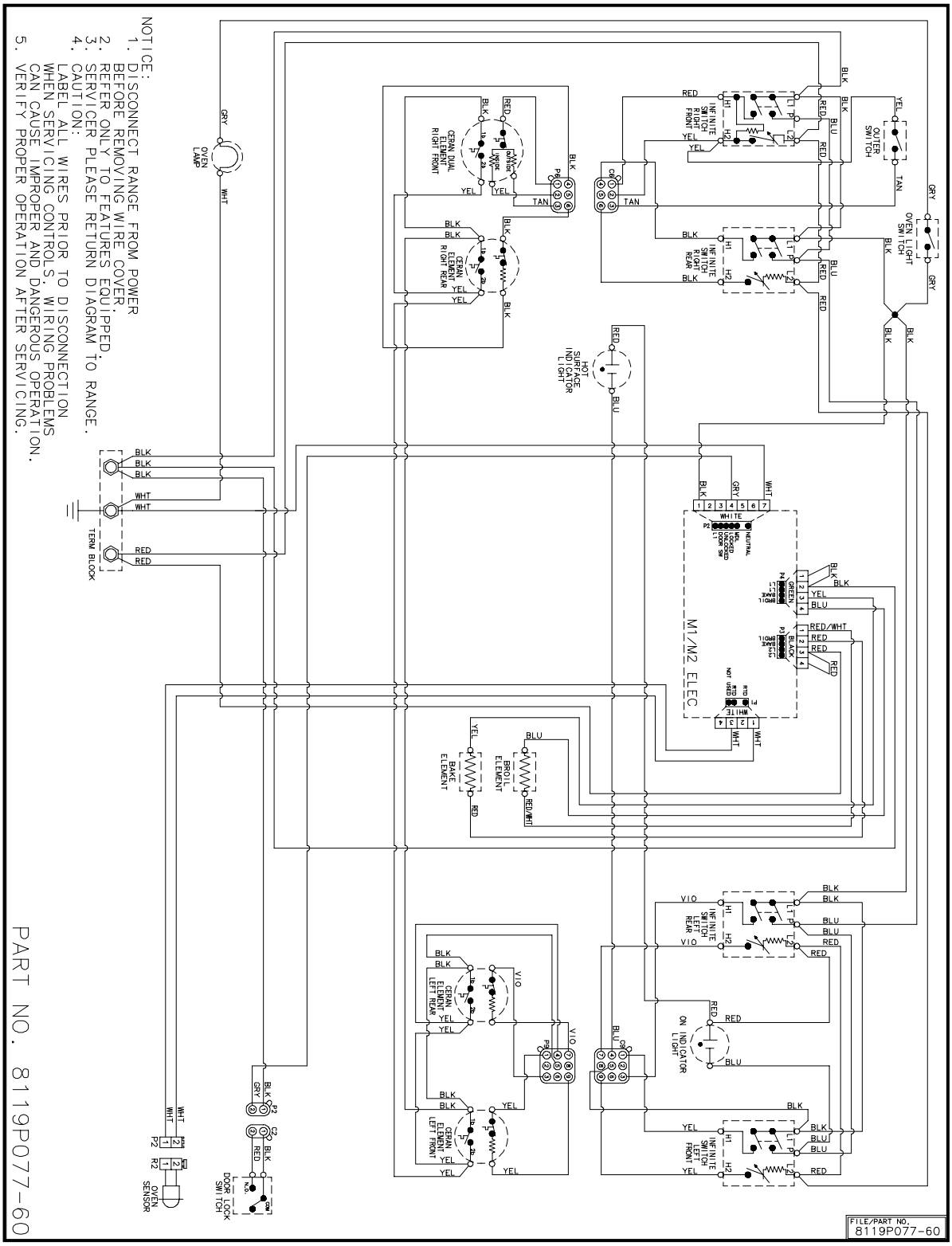

Wiring Diagram